

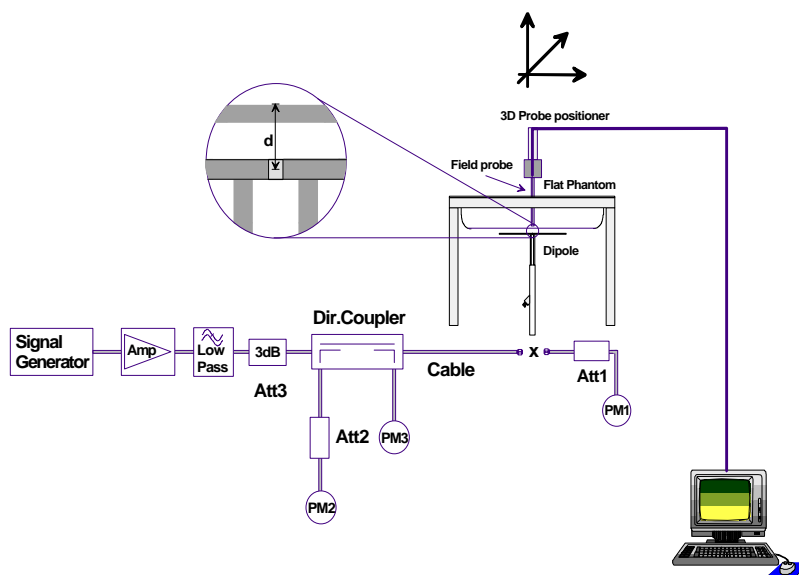
## SYSTEM PERFORMANCE CHECK

Prior to the SAR evaluation a system check was performed in the planar section of the SAM phantom with a 2450MHz dipole. The dielectric parameters of the simulated brain tissue fluid were measured using an 85070C Dielectric Probe Kit and an 8753E Network Analyzer prior to the system check (see attached printout of measured fluid dielectric parameters). A forward power of 250 mW was applied to the dipole and the system was verified to a tolerance of  $\pm 10\%$  (see attached system check test plot).

SYSTEM PERFORMANCE CHECK											
Test Date	2450MHz Equiv. Tissue	SAR 1g (W/kg)		Dielectric Constant $\epsilon_r$		Conductivity $s$ (mho/m)		$\rho$ (Kg/m <sup>3</sup> )	Ambient Temp.	Fluid Temp.	Fluid Depth
		IEEE Target	Measured	IEEE Target	Measured	IEEE Target	Measured				
04/29/03	Brain	13.1 $\pm 10\%$	14.2	39.2 $\pm 10\%$	37.3	1.80 $\pm 5\%$	1.85	1000	23.3 °C	23.4 °C	$\geq 15$ cm

Note(s):

1. The ambient and fluid temperatures were measured prior to, and during, the fluid electric parameter check and the system performance check. The temperatures listed in the table above were consistent for all measurement periods.



System Check Setup Diagram



2450MHz System Check Setup Photograph

## System Performance Check - 2450MHz Dipole

SAM Phantom; Flat Section

Probe: ET3DV6 - SN1387; ConvF(5.00,5.00,5.00); Crest factor: 1.0; 2450 MHz Brain:  $\sigma = 1.85$  mho/m  $\epsilon_r = 37.3$   $\rho = 1.00$  g/cm<sup>3</sup>

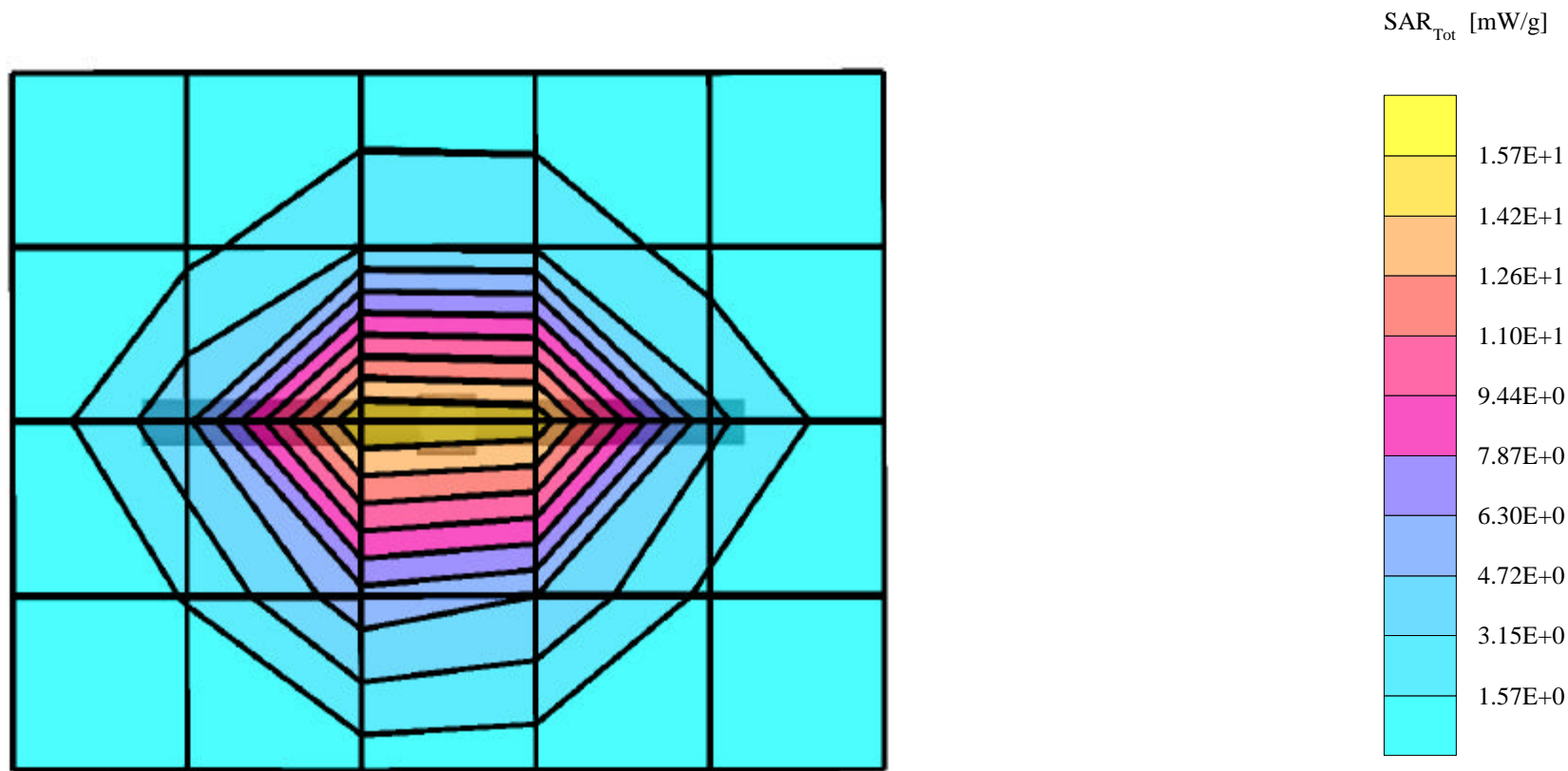
Cube 5x5x7: Peak: 27.9 mW/g, SAR (1g): 14.2 mW/g, SAR (10g): 6.60 mW/g, (Worst-case extrapolation)

Penetration depth: 7.0 (6.8, 7.1) [mm]; Powerdrift: -0.09 dB

Ambient Temp: 23.3°C; Fluid Temp: 23.4°C

Conducted Power: 250mW

Date Tested: April 29, 2003



# 2450MHz System Performance Check

Measured Fluid Dielectric Parameters (Brain)

April 29, 2003

Frequency	$\epsilon'$	$\epsilon''$
2.300000000 GHz	38.0016	13.0787
2.310000000 GHz	37.9504	13.1095
2.320000000 GHz	37.8827	13.1533
2.330000000 GHz	37.8389	13.1982
2.340000000 GHz	37.8067	13.2425
2.350000000 GHz	37.7705	13.2874
2.360000000 GHz	37.7502	13.3338
2.370000000 GHz	37.7290	13.3674
2.380000000 GHz	37.7049	13.3924
2.390000000 GHz	37.6805	13.3988
2.400000000 GHz	37.6437	13.4125
2.410000000 GHz	37.5732	13.4341
2.420000000 GHz	37.5213	13.4847
2.430000000 GHz	37.4394	13.5271
2.440000000 GHz	37.3941	13.5731
2.450000000 GHz	37.3364	13.6024
2.460000000 GHz	37.2909	13.6627
2.470000000 GHz	37.2669	13.6845
2.480000000 GHz	37.2362	13.7171
2.490000000 GHz	37.2154	13.7474
2.500000000 GHz	37.1896	13.7442