

# 2450MHz Brain Dipole Validation

SAM Phantom; Flat Section; Probe:ET3DV6 - SN1677; ConvF(4.40,4.40,4.40)

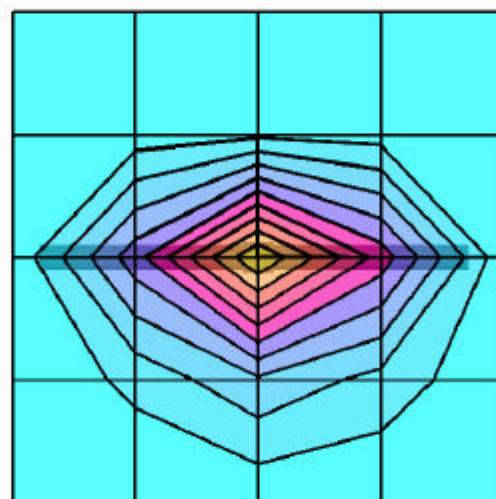
Med. Parameters 2450MHz Brain:  $\sigma = 1.79$  mho/m  $\epsilon_r = 40.1$   $\rho = 1.00$  g/cm<sup>3</sup>; Antenna Position -- Out; Crest Factor 1.0

SAR (1g): 13.2 mW/g, SAR (10g): 7.63 mW/g

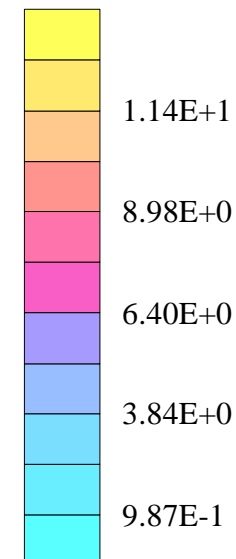
2450MHz Brain Dipole Validation (D-2450S, S/N: 105 )

Frequency: 2450MHz; Antenna Input Power: 250 [mW]; Ambient Temp. = 22.1°C / Meas. Tissue Temp. = 22.1°C

PCTEST Brain Tissue Simulating Liquid [07/31/2002]



SAR<sub>Tot</sub> [mW/g]



## 12. SYSTEM VERIFICATION

### Tissue Verification

Table 12.1 Simulated Tissue Verification [5]

MEASURED TISSUE PARAMETERS									
Date(s)	07/31/02	1900MHz Brain		1900MHz Muscle		2450MHz Brain		2450MHz Muscle	
Liquid Temperature (°C)	22.1	Target	Measured	Target	Measured	Target	Measured	Target	Measured
Dielectric Constant: $\epsilon$		40.00	N/A	53.30	N/A	39.20	40.89	52.70	53.60
Conductivity: $\sigma$		1.400	N/A	1.520	N/A	1.80	1.410	1.95	1.960

### Test System Validation

Prior to assessment, the system is verified to the  $\pm 10\%$  of the specifications at 835MHz and 1900MHz by using the system validation kit(s). (Graphic Plots Attached)

Table 12.2 System Validation [5]

SYSTEM DIPOLE VALIDATION TARGET & MEASURED				
System Validation Kit: D-1900V2, S/N: 502	1900MHz Brain	Targeted SAR <sub>1g</sub> (mW/g) 9.925	Measured SAR <sub>1g</sub> (mW/g) <b>10.48</b>	Deviation (%) <b>+ 5.58</b>
System Validation Kit: D-2450S, S/N: 105	2450MHz Brain	Targeted SAR <sub>1g</sub> (mW/g) 13.100	Measured SAR <sub>1g</sub> (mW/g) <b>13.2</b>	Deviation (%) <b>+ 0.76</b>

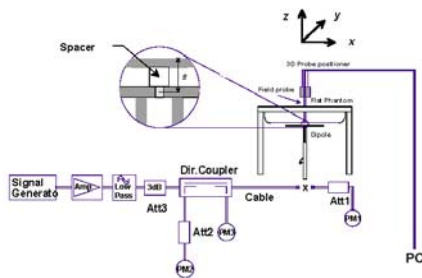




Figure 12.1 Dipole Validation Test Setup

PCTEST™ SAR REPORT	 FCC CERTIFICATION 		Reviewed by: Quality Manager
SAR Filename: SAR-220701342.H9P	Test Dates: July 30-31, 2002	EUT Type: Portable Data Terminal	FCC ID: H9PPDT28C6 Page 16 of 21