

6.1 SYSTEM SPECIFICATIONS

6.2 Robotic System Specifications

Specifications

POSITIONER: IDX Robot with 6 axis
Repeatability: 0.002 in.
Accuracy: 0.004 in.

Data Acquisition

Processor: Pentium PRO CPU
Clock Speed: 200 MHz
Operating System: Windows NT
Data Card: National Instruments Analog Card
Software: IDX Flexware
AMPLIFIER GAIN: Adjustable 20 - 40, high isolation between channels
Connecting Lines: High Impedance 4.5 kohm/foot
Sample Rate: 6000

E-Field Probe

E-Probe #1

E-Probe #2

Probe Offset:	2.5 mm	2.5 mm
Frequency Band:	150 - 2200 MHz	150 - 2200 MHz
Conversion Factor:	0.601 (800-880MHz)	0.79 (800-880MHz)
Conversion Factor:	1.20 (1850-1910MHz)	1.20 (1850-1910MHz)
Dynamic Response:	2 μ W/g - 10 mW/g	2 μ W/g - 10 mW/g
Input:	2.2 meg	2.2 meg
Isotropy:	± 0.5 dB	± 0.5 dB
Resolution:	0.1 cm ³	0.1 cm ³

Phantom

Phantom #1 (Left)

Phantom #2 (Right)

Phantoms:	Homogenous	Homogenous
Shell Material:	Fiberglass	Fiberglass
Thickness:	1 - 1.5 mm	1 - 1.5 mm
Head:	with Left ear	with Right ear

Brain Tissue Equivalent

800-850 MHz

1850-1910 MHz

Dielectric Constant: ϵ	43.4	42.9
Conductivity: σ	0.90	1.65

11.1 TEST DATA SUMMARY

Ambient TEMPERATURE (°C) _____ 24.0
Relative HUMIDITY (%) _____ 56.0
Atmospheric PRESSURE (kPa) _____ 96.8

Mixture Type: _____ Brain _____

Dielectric Constant: _____ 42.9 _____

Conductivity: _____ 1.65 S/m _____

Closest Distance (between E-Probe & Phone Antenna): _____ 2.3 cm _____

Measurement Results

FREQUENCY		Modulation	POWER (W)	EAR Position	Antenna Position	SAR (W/kg)
MHz	Ch.					
1851.25	25	CDMA	0.3	Left	IN	0.7134
1851.25	25	CDMA	0.3	Left	OUT	0.4367
1880.00	600	CDMA	0.3	Left	IN	0.7496
1880.00	600	CDMA	0.3	Left	OUT	0.4802
1908.75	1175	CDMA	0.3	Left	IN	0.5887
1908.75	1175	CDMA	0.3	Left	OUT	0.5986
ANSI / IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak (Brain) Uncontrolled Exposure/General Population				1.6 W/kg (mW/g)		

NOTES:

1. The test data reported are the worst-case SAR value with the antenna-head position set in a typical configuration. All modes of operation were investigated and the worst-case are reported.
2. Battery condition is fully charged for all readings.
3. Power measured: ☐ Conducted ☒ EIRP ☐ ERP


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PCTEST SEAL

DATE: _____ 08-07-98 _____