

SYSTEM VALIDATION DATA

Ambient temperature (°C): 22.9

Relative Humidity (%): 52

Date: January 24, 2002

Liquid depth (cm): 15.2

Measured By: Sunny Shih

Liquid	Liquid Temp [°C]	Parameters	Target Value	Measured Value	Deviation [%]	Limit [%]
Head 1800 MHz	20.7	e	40	39.44	-1.40	± 5
		s	1.4	1.4139	+0.993	± 5
	20.1	1 g SAR	38.1	37.24	-2.3359	± 10

System Validation – SAR Plot

1/24/02

System Validation (Dipole: D1800V2 S/N: 294)

Output power: 250 mW

Generic Twin Phantom; Flat Section; Position: (90°, 90°); Frequency: 1800 MHz

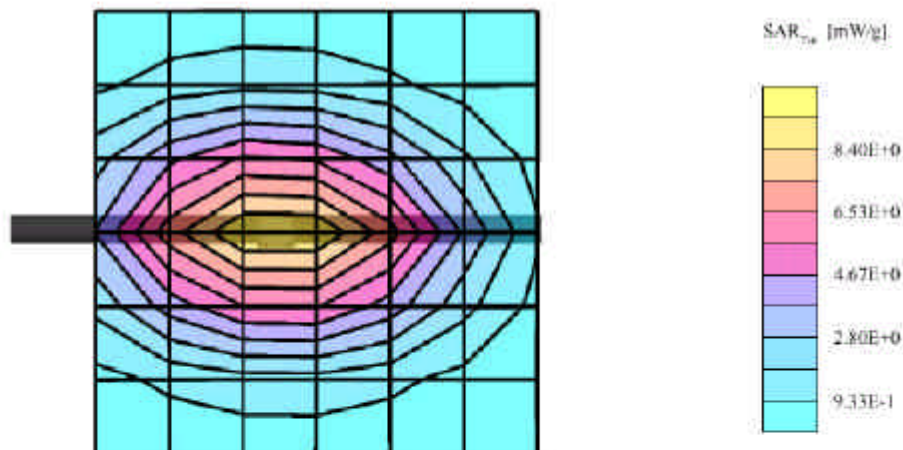
Probe: ET3DV6 - SN1577; ConvF(5.92,5.92,5.92); Crest factor: 1.0; Head 1800 MHz: $\sigma = 1.41 \text{ mho/m}$, $\epsilon_r = 39.4$, $\rho = 1.00 \text{ g/cm}^3$

Cube 5x5x7; SAR (1g): 9.31 mW/g , SAR (10g): 4.84 mW/g . (Worst-case extrapolation)

Course: Dx = 10.0, Dy = 10.0, Dz = 10.0

Powerdrift: -0.02 dB

Liquid Temperature: 20.1°C



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System Validation - SAR vs. Z-Axis Plot

1/24/02

System Validation (Dipole: D1800V2 S/N: 294)

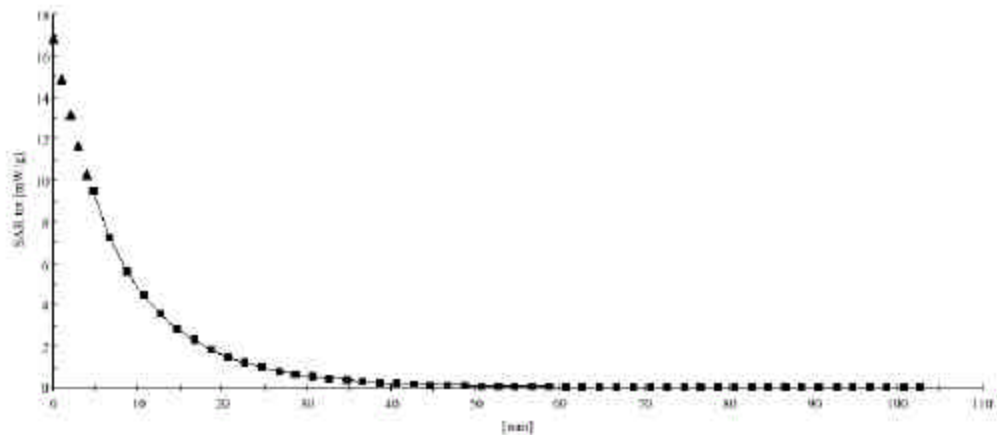
Output power: 250 mW

Generic Twin Phantom; Section; Position: ; Frequency: 1800 MHz

Probe: ET3DV6 - SN1577; ConvF(5.92,5.92,5.92); Crest factor: 1.0; Head 1800 MHz: $\sigma = 1.41 \text{ mho/m}$ $\epsilon_1 = 39.4$ $\rho = 1.00 \text{ g/cm}^3$
Z: ()

Z-Axis: Dx = 0.0, Dy = 0.0, Dz = 2.0

Liquid Temperature: 20.1°C



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SAR Measurement Data

Ambient temperature (°C): 23.3

Date: January 24, 2002

Relative Humidity (%): 52

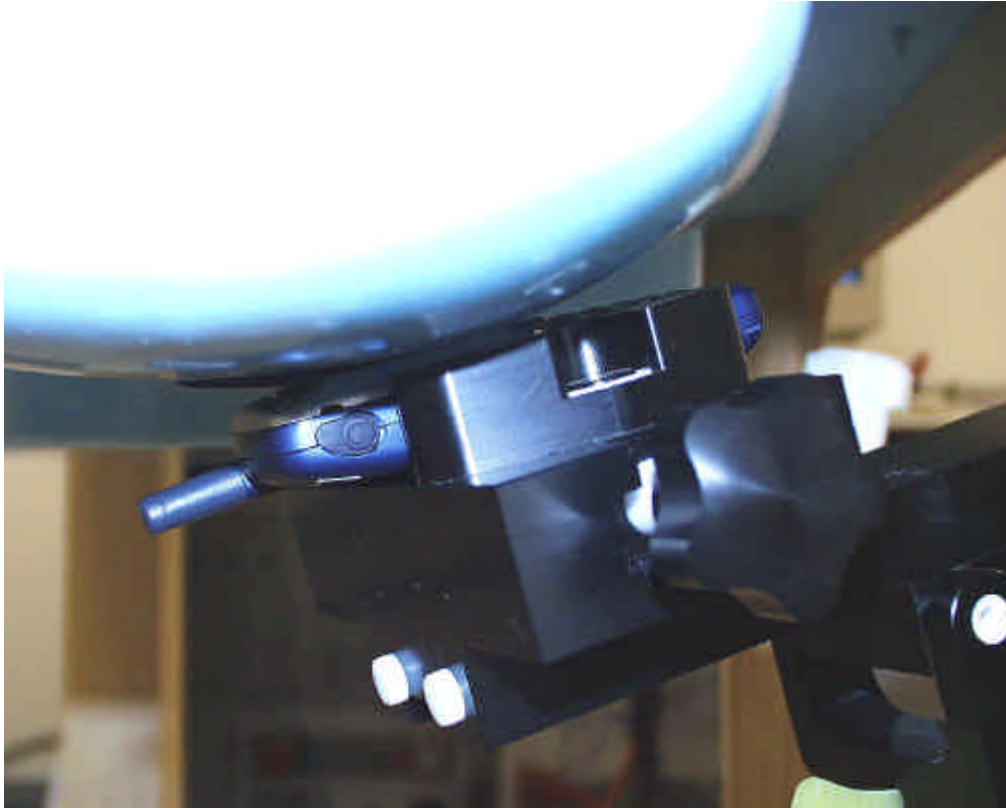
Measured By: Sunny Shih

Liquid	Liquid Temp [°C]	Parameters	Target Value	Measured Value	Deviation [%]	Limit [%]
Head 1900 MHz	20.7	e	40	39.22	-1.95	± 5
		s	1.4	1.432	+2.286	± 5

Right Head Configuration: Liquid Depth:15.1cm

Mode	Position	Ch	Frequency [MHz]	Conducted Power [dBm]		Worst case SAR, averaged over 1g [mW/g]				
				Before	After	Set-up condition (applicable checked)			Measured	Limit
						Antenna	Cheek	Tilted		
PCS	Head	L	1850	30.1	29.9	Fixed	X		0.567	1.6

Position Photo



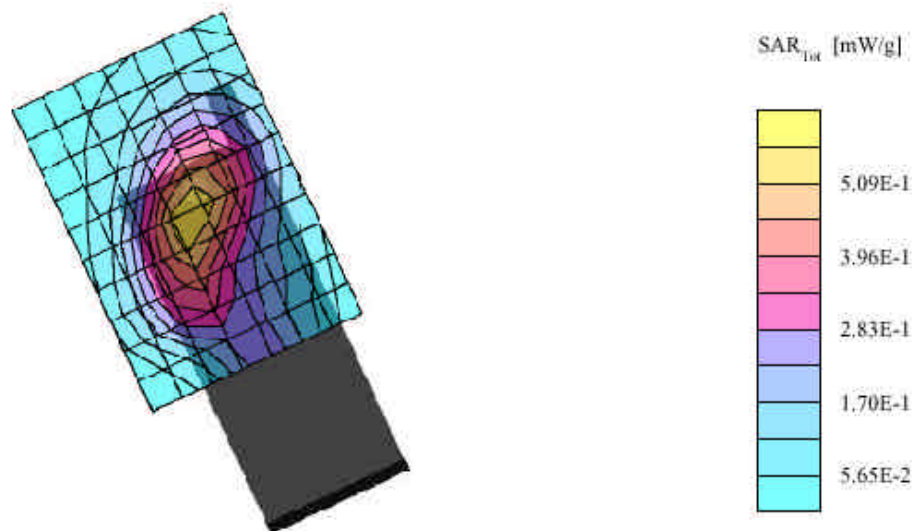
1/24/02

SAMSUNG

R225 (Right cheek configuration, low channel)

Generic Twin Phantom, Right Hand Section; Position: (80°, 65°); Frequency: 1900 MHz
Probe: ET3DV6 - SN1577; ConvF(5.86, 5.86, 5.86); Crest factor: 3.0; Head 1900 MHz: $\sigma = 1.43 \text{ mho/m}$ $\epsilon_r = 39.2$ $\rho = 1.00 \text{ g/cm}^3$
Cube 5x5x7; SAR (1g): 0.567 mW/g, SAR (10g): 0.335 mW/g, (Worst-case extrapolation)
Coarse: Dx = 10.0, Dy = 10.0, Dz = 10.0
Powerdrift: -0.44 dB

Liquid Temperature: 20.2°C



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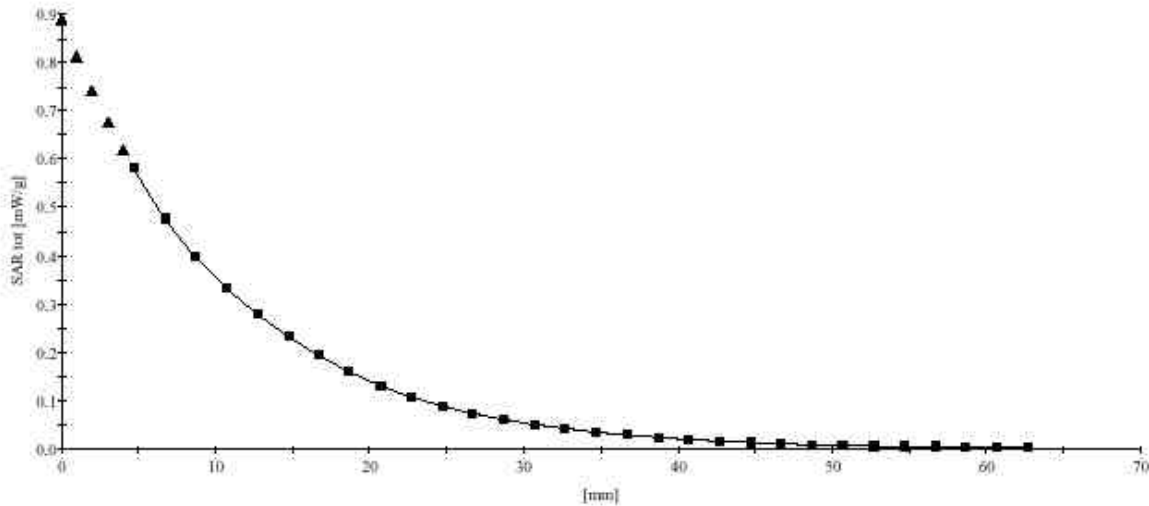
R225 (Right cheek configuration, low channel)

Generic Twin Phantom; Section; Position: ; Frequency: 1900 MHz

Probe: ET3DV6 - SN1577; ConvF(5.86,5.86,5.86); Crest factor: 3.0; Head 1900 MHz: $\sigma = 1.43 \text{ mho/m}$ $\epsilon_r = 39.2$ $\rho = 1.00 \text{ g/cm}^3$
: , ()

Z-Axis: Dx = 0.0, Dy = 0.0, Dz = 2.0

Liquid Temperature: 20.2°C



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