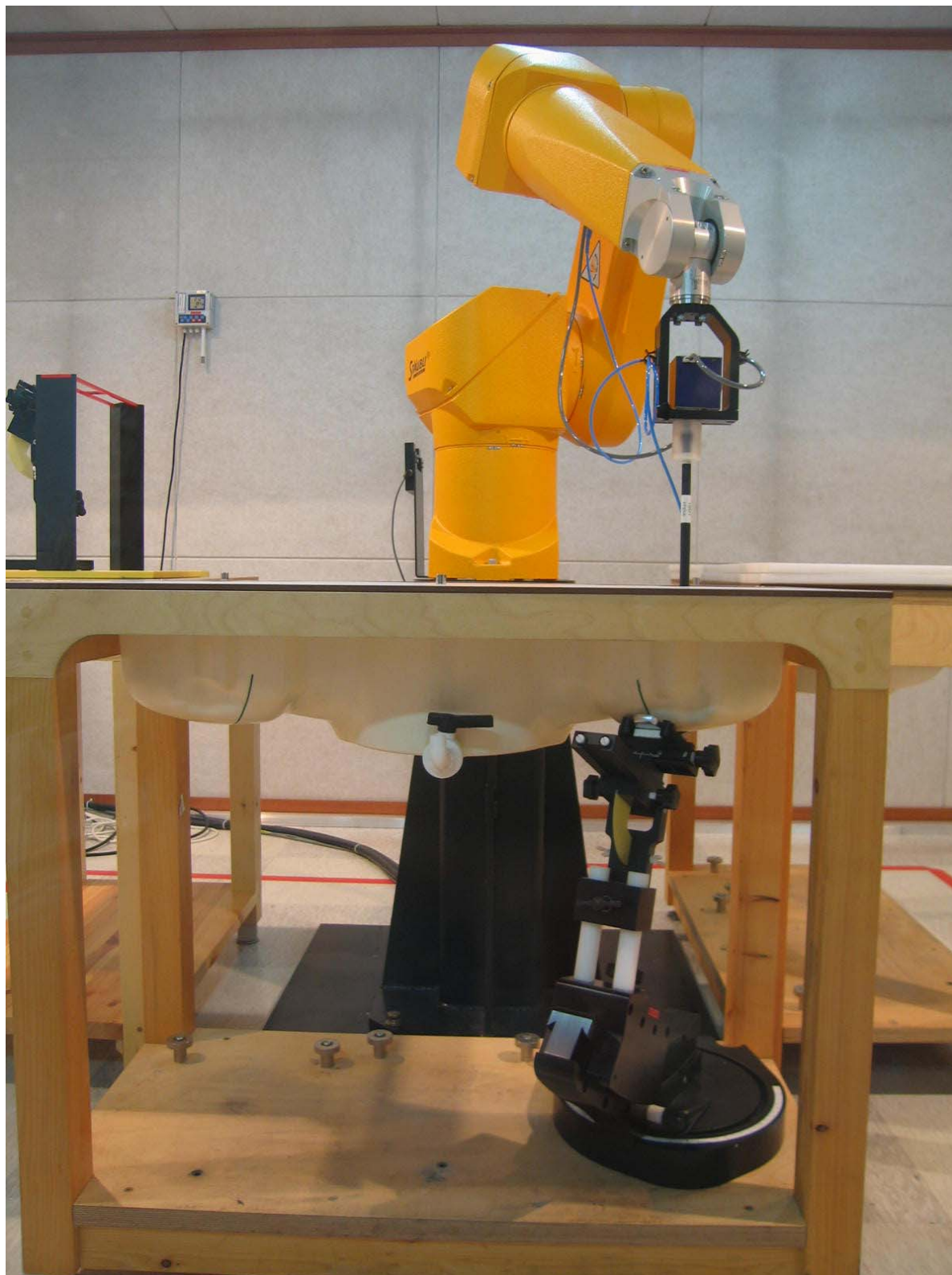
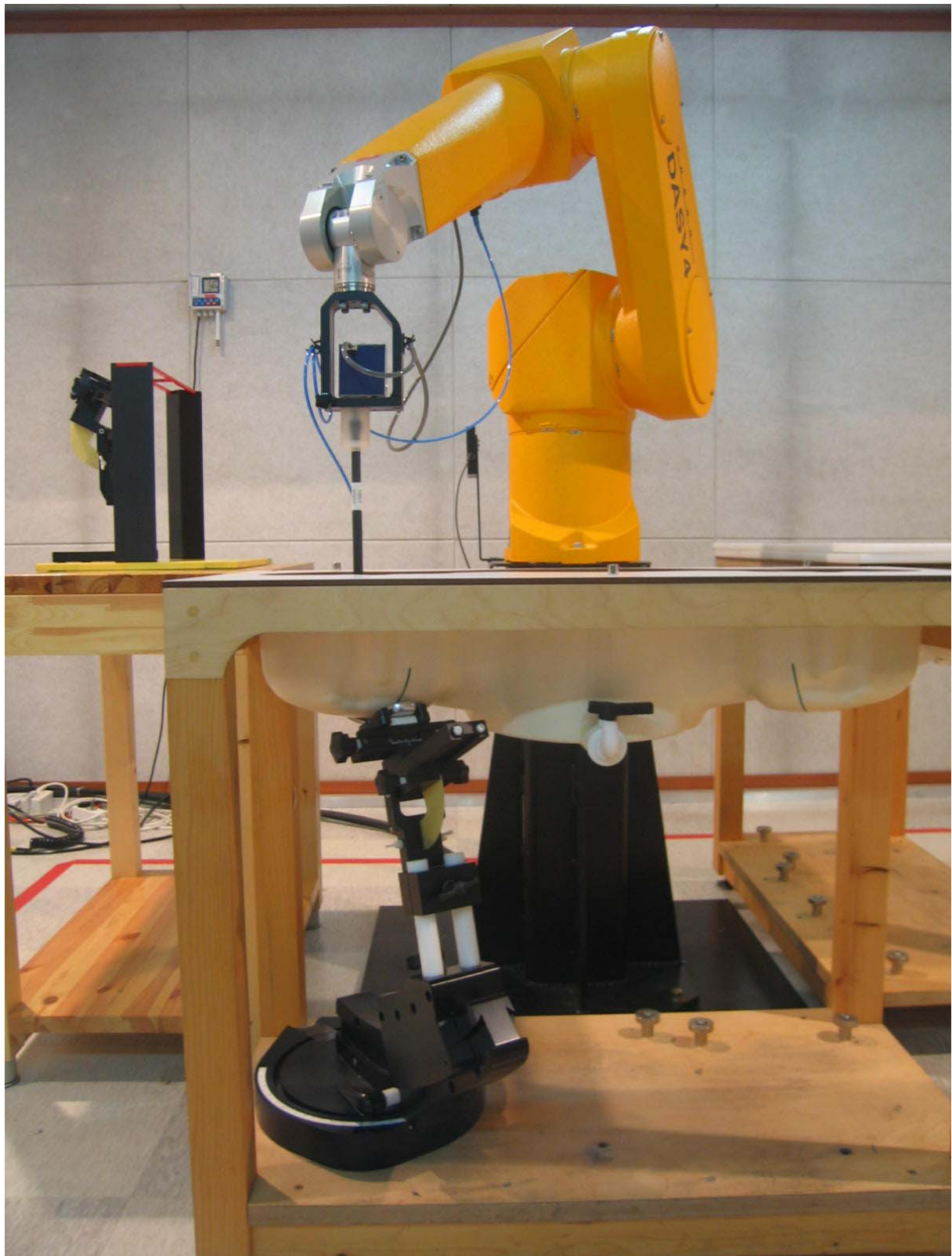


APPENDIX B – SAR TEST SETUP PHOTOGRAPHS

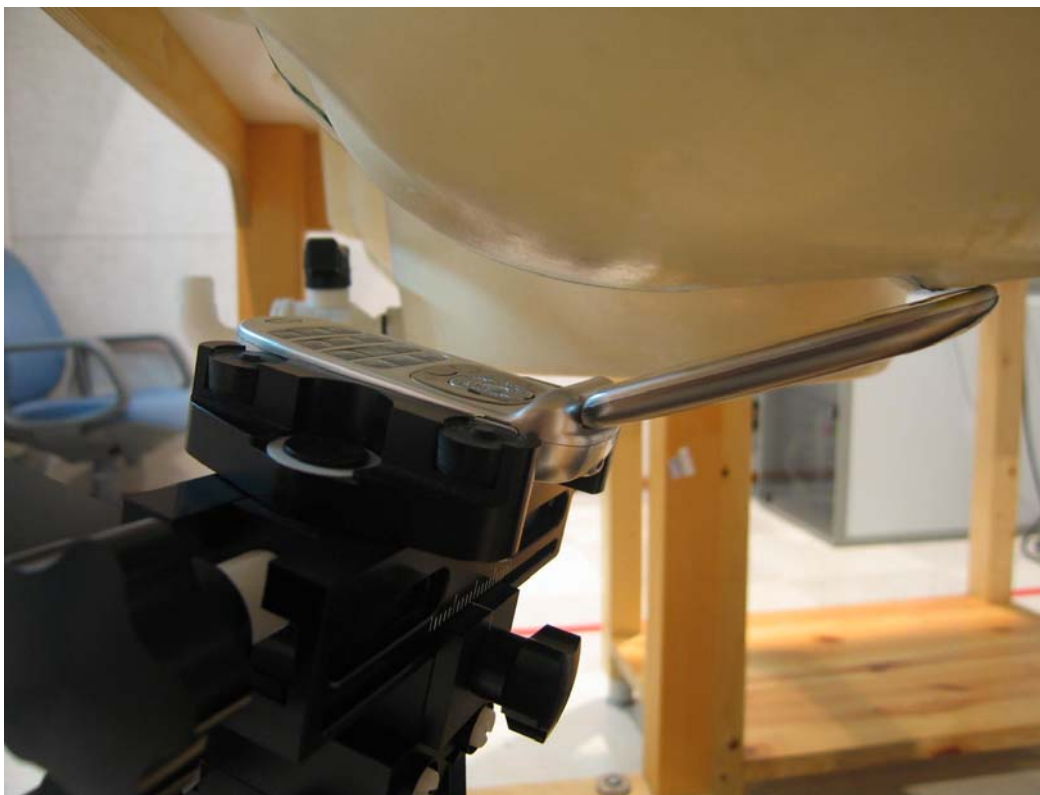
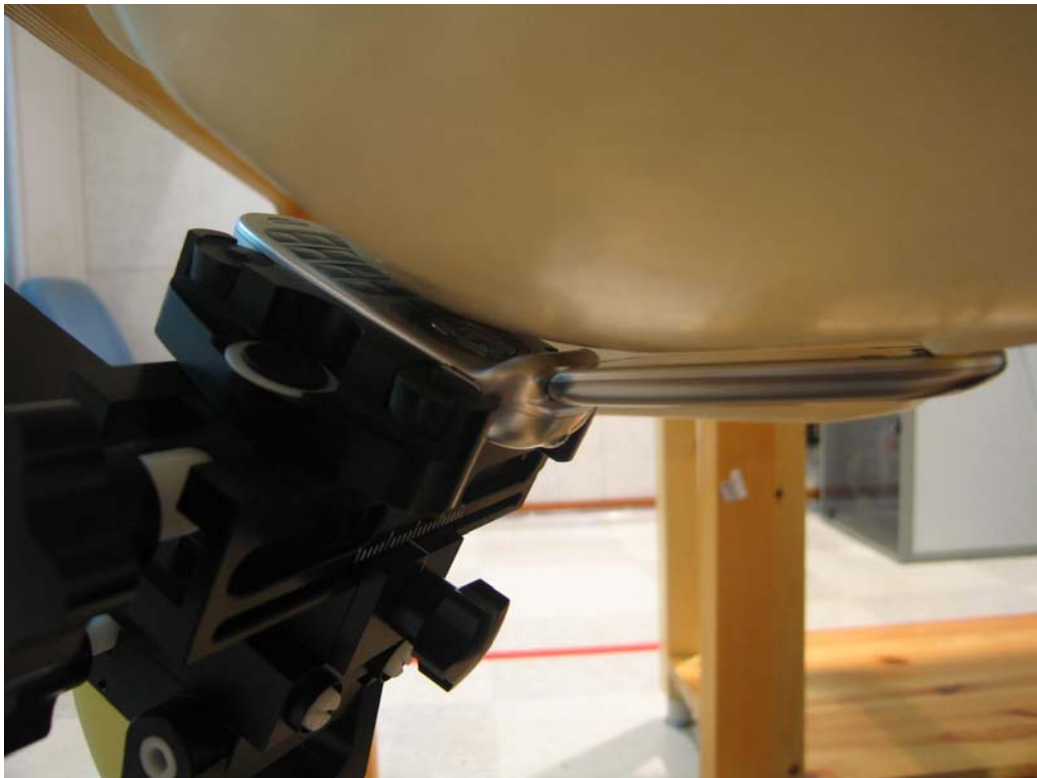
■ Test Setup Photo



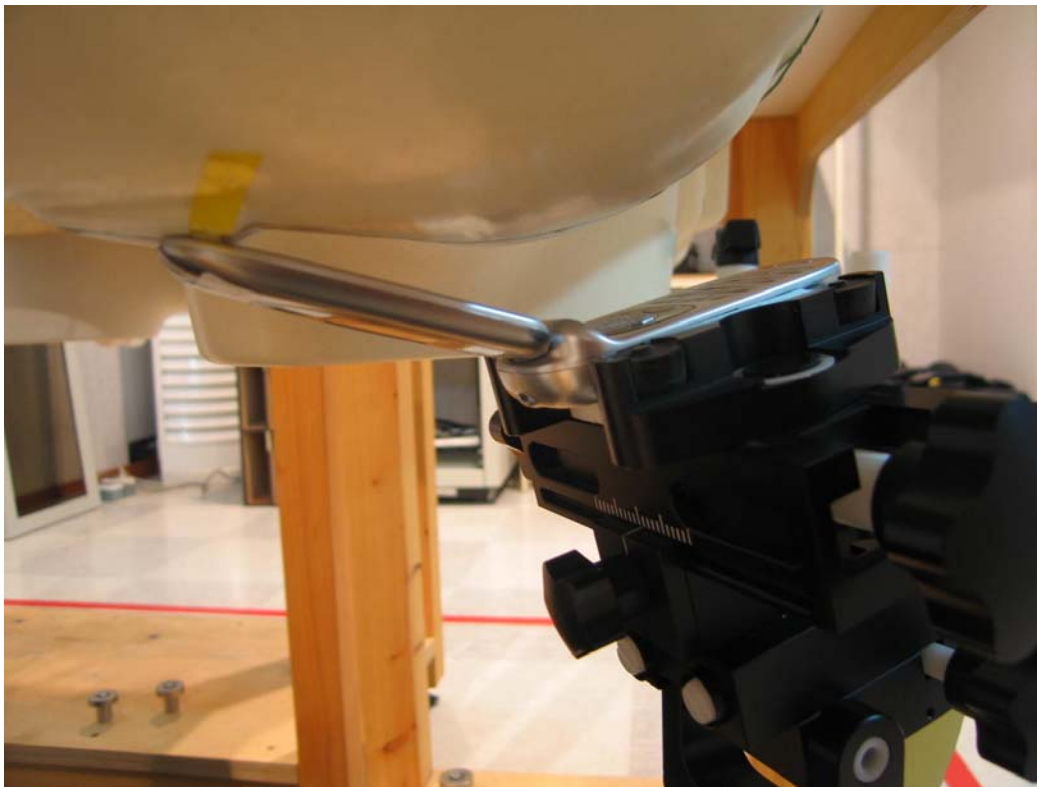
■ Test Setup Photo



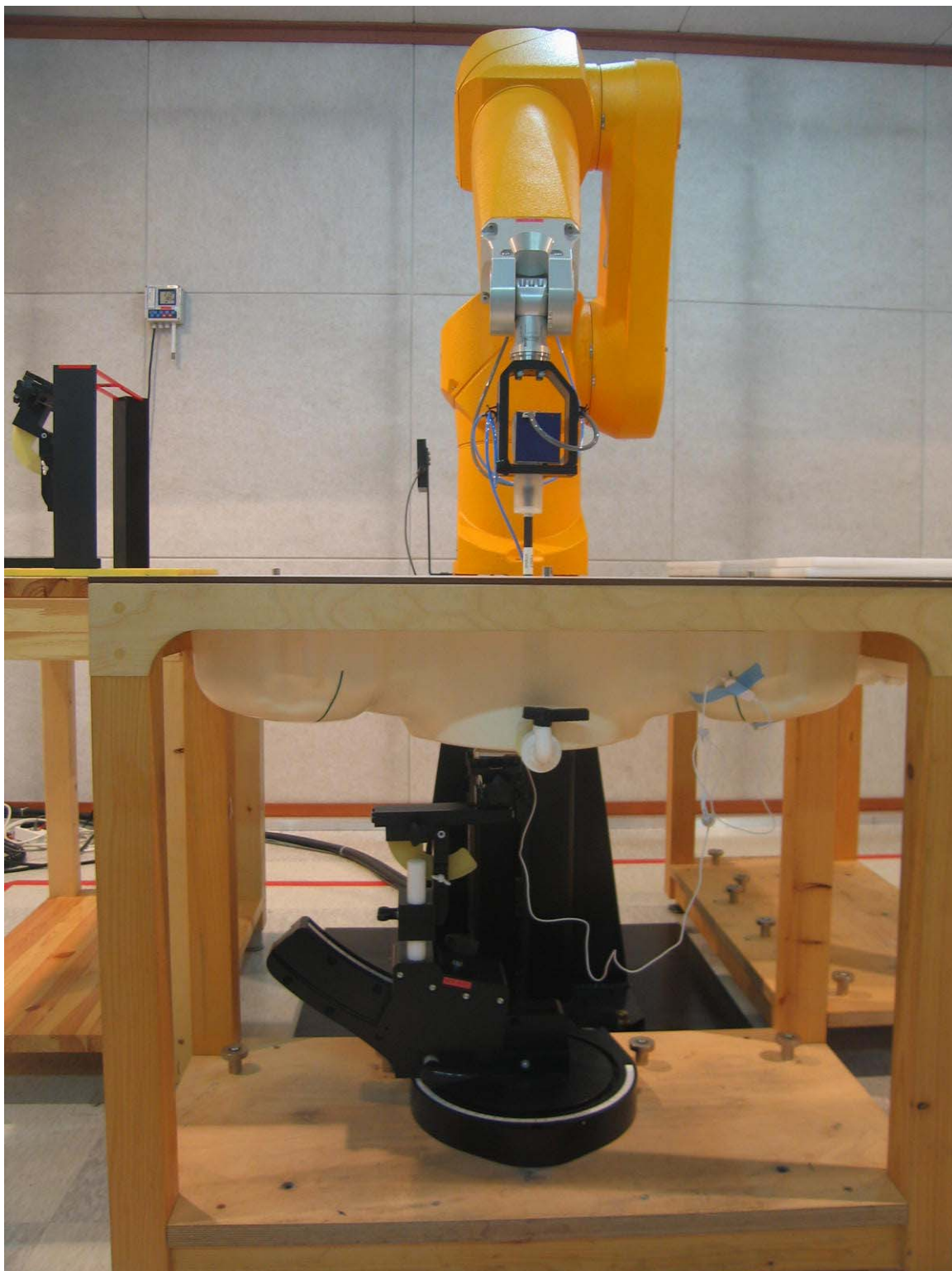
■ Test Setup Photo



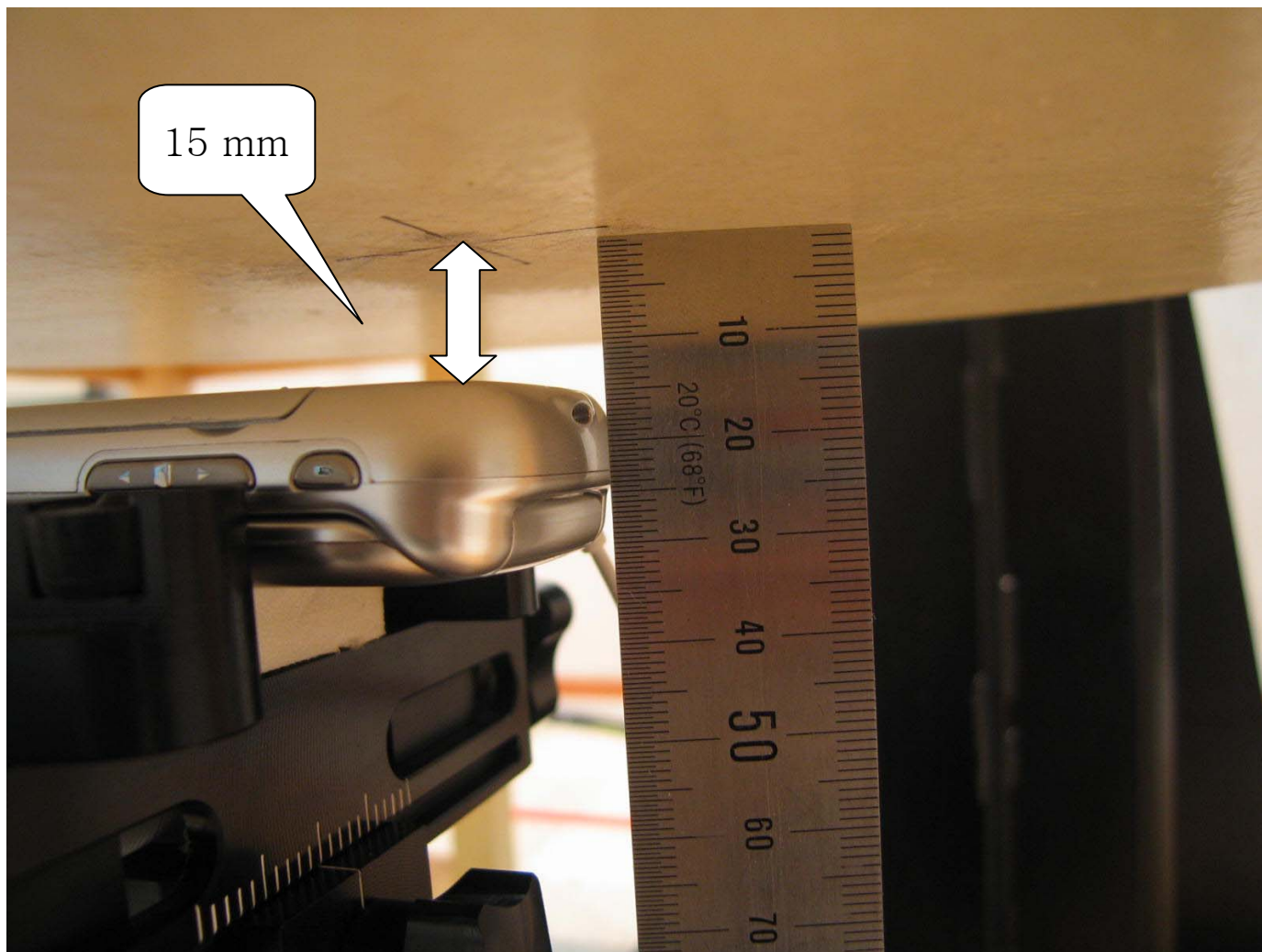
■ Test Setup Photo



■ Test Setup Photo

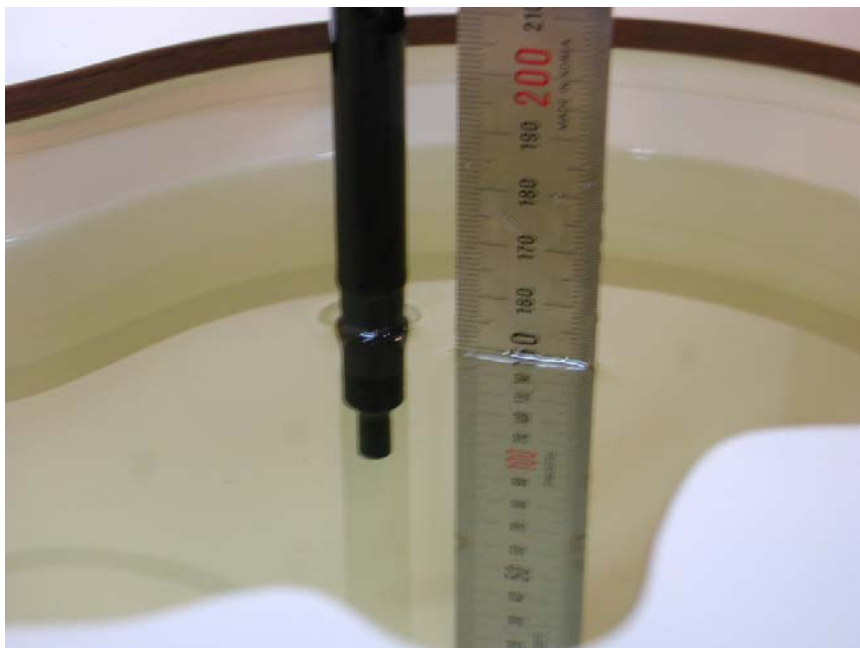
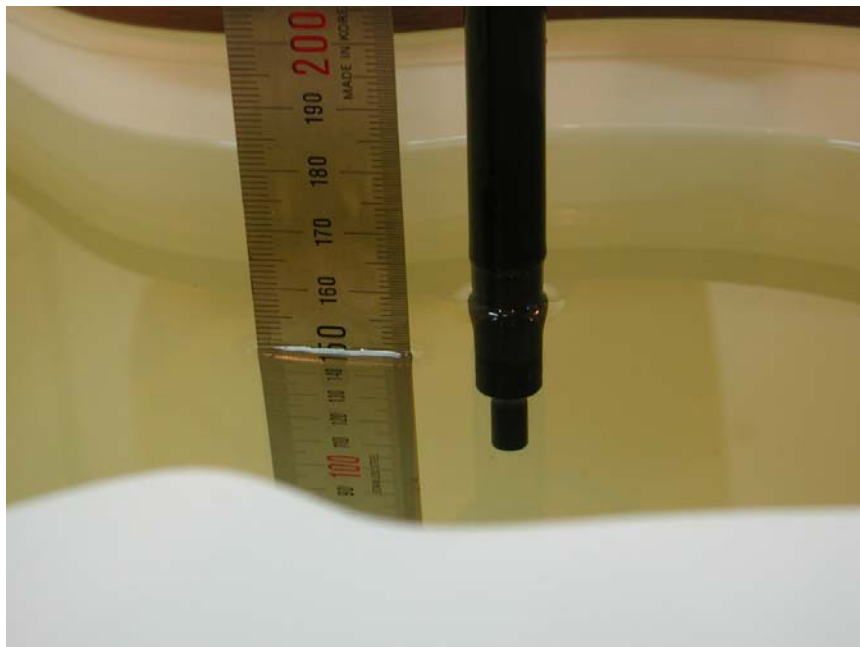


■ Test Setup Photo



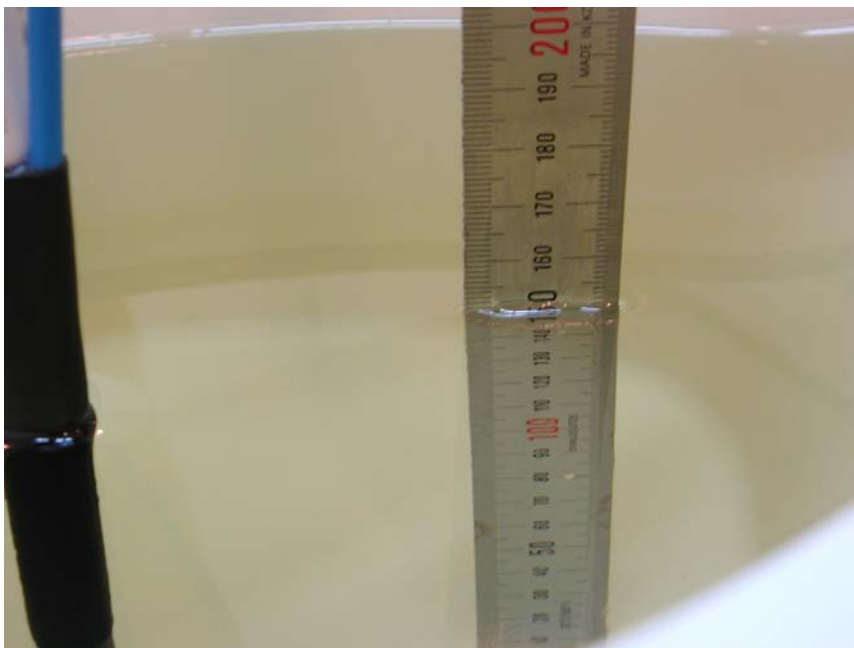
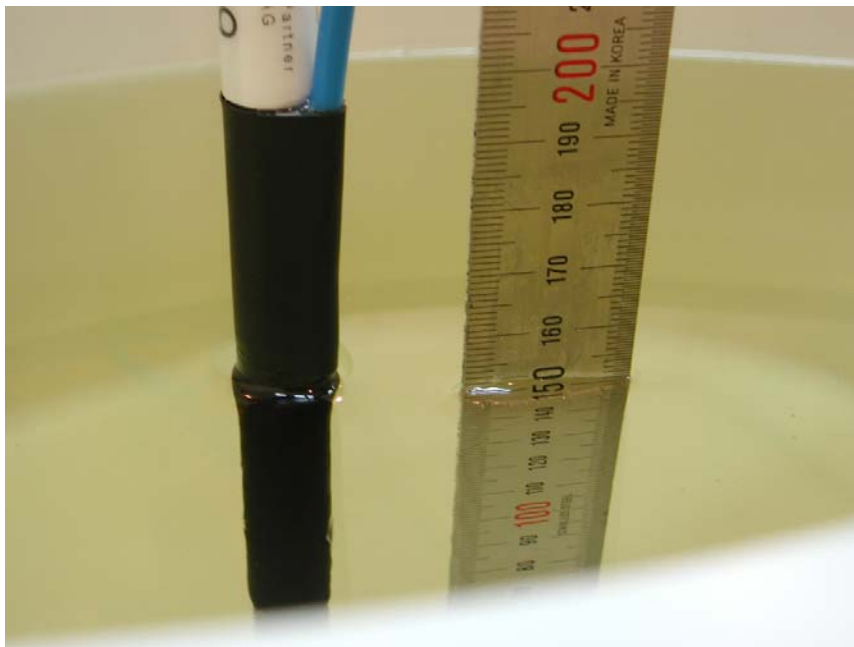
■ Test Setup Photo

[835MHz/ 1900MHz Head Tissue Liquid Depth : 15cm]



■ Test Setup Photo

[835MHz/ 1900MHz Body Tissue Liquid Depth : 15cm]



■ Test Setup Photo



APPENDIX C – DIPOLE VALIDATION

■ Validation Data (835MHz Head)

Test Laboratory: HCT

835 Dipole Validation test: Input power(1W)
Liquid Temperature : 21.4 °C
Date Tested : February 22, 2006

DUT: Dipole 835 MHz; Type: D835V2; Serial: D835V2
Program Name: Validation

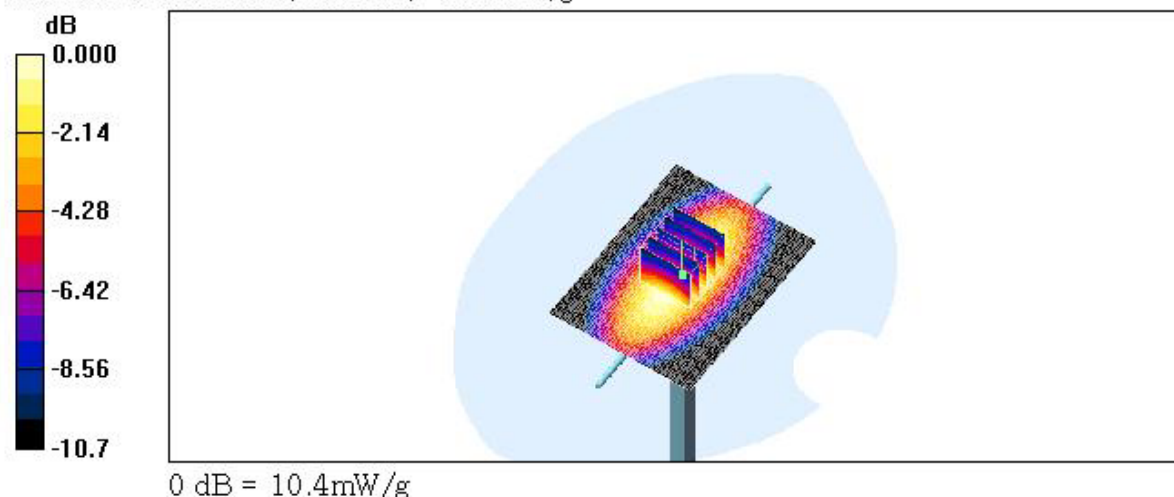
Communication System: CW; Frequency: 835 MHz; Duty Cycle: 1:1
Medium parameters used: $f = 835 \text{ MHz}$; $\sigma = 0.88 \text{ mho/m}$; $\epsilon_r = 41.8$; $\rho = 1000 \text{ kg/m}^3$
Phantom section: Flat Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1607; ConvF(6.18, 6.18, 6.18); Calibrated: 2005-08-30
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn446; Calibrated: 2005-05-24
- Phantom: SAM 835/900 MHz; Type: SAM

Validation 835 MHz/Area Scan (61x81x1): Measurement grid: $\Delta x = 15\text{mm}$, $\Delta y = 15\text{mm}$
Maximum value of SAR (interpolated) = 10.5 mW/g

Validation 835 MHz/Zoom Scan (5x5x7)/Cube 0: Measurement grid: $\Delta x = 8\text{mm}$, $\Delta y = 8\text{mm}$, $\Delta z = 5\text{mm}$
Reference Value = 113.3 V/m; Power Drift = -0.021 dB
Peak SAR (extrapolated) = 14.4 W/kg
SAR(1 g) = 9.7 mW/g; SAR(10 g) = 6.33 mW/g
Maximum value of SAR (measured) = 10.4 mW/g



■ Validation Data (1900MHz Head)

Test Laboratory: HCT

1900 Dipole Validation test: Input power(1W)

Liquid Temperature : 21.4 °C

Date Tested : February 22, 2006

DUT: Dipole 1900 MHz; Type: D1900V2; Serial: D1900V2

Program Name: Validation

Communication System: CW; Frequency: 1900 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 1900$ MHz; $\sigma = 1.46$ mho/m; $\epsilon_r = 38.4$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1607; ConvF(5.14, 5.14, 5.14); Calibrated: 2005-08-30

- Sensor-Surface: 4mm (Mechanical Surface Detection)

- Electronics: DAE3 Sn446; Calibrated: 2005-05-24

- Phantom: SAM 1800/1900 MHz; Type: SAM

Dipole 1900MHz Validation/Area Scan (61x61x1): Measurement grid: $dx=15$ mm, $dy=15$ mm

Maximum value of SAR (interpolated) = 47.9 mW/g

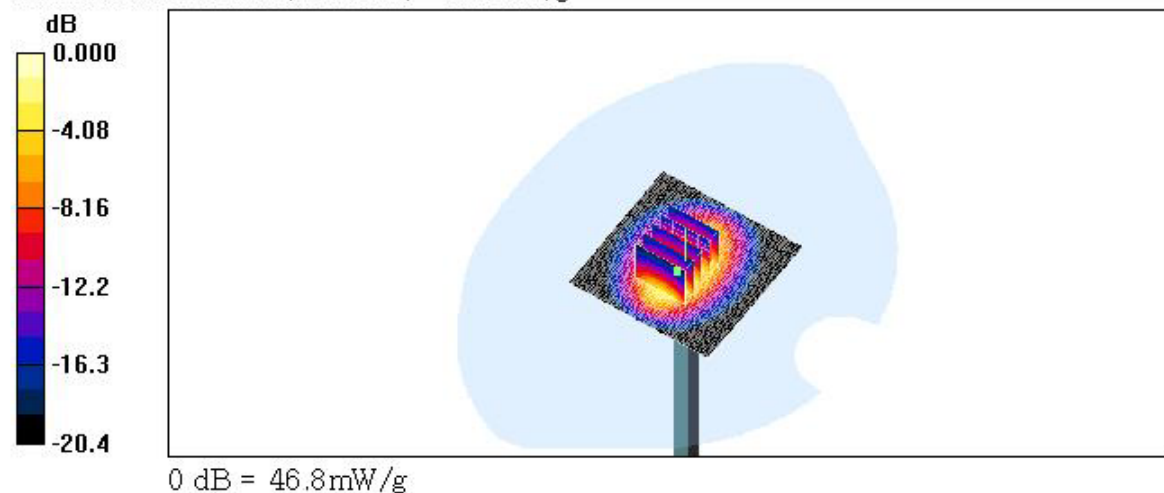
Dipole 1900MHz Validation/Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=8$ mm, $dy=8$ mm, $dz=5$ mm

Reference Value = 186.9 V/m; Power Drift = 0.087 dB

Peak SAR (extrapolated) = 75.9 W/kg

SAR(1 g) = 41.8 mW/g; SAR(10 g) = 21.4 mW/g

Maximum value of SAR (measured) = 46.8 mW/g



■ Dielectric Parameter (835MHz Head)**Title : PG-3310****SubTitle : GSM850 Head**

February 22, 2006 09:35 AM

Frequency	e'	e''
800.000000 MHz	42.3510	18.9265
805.000000 MHz	42.2284	18.8886
810.000000 MHz	42.1994	18.9117
815.000000 MHz	42.2249	18.9731
820.000000 MHz	42.1255	18.9671
825.000000 MHz	42.0459	18.9507
830.000000 MHz	41.9270	18.9405
835.000000 MHz	41.8137	18.9450
840.000000 MHz	41.7450	18.9163
845.000000 MHz	41.5659	18.8987
850.000000 MHz	41.5353	18.8500
855.000000 MHz	41.4442	18.8397
860.000000 MHz	41.3975	18.8375
865.000000 MHz	41.3019	18.8394
870.000000 MHz	41.2331	18.8237
875.000000 MHz	41.0973	18.8176
880.000000 MHz	41.1133	18.7579
885.000000 MHz	40.9855	18.7706
890.000000 MHz	40.9555	18.7550
895.000000 MHz	40.9190	18.7315
900.000000 MHz	40.8921	18.7054

■ Dielectric Parameter (835MHz Body)

Title : PG-3310

SubTitle : GSM850 Body

February 22, 2006 01:40 PM

Frequency	e'	e''
800.000000 MHz	55.0980	21.2889
805.000000 MHz	55.0961	21.2832
810.000000 MHz	55.0539	21.2579
815.000000 MHz	54.9765	21.2570
820.000000 MHz	54.9658	21.2655
825.000000 MHz	54.8970	21.2504
830.000000 MHz	54.8562	21.2920
835.000000 MHz	54.7693	21.2507
840.000000 MHz	54.7598	21.3245
845.000000 MHz	54.6982	21.2854
850.000000 MHz	54.6893	21.3252
855.000000 MHz	54.6488	21.2785
860.000000 MHz	54.5631	21.2819
865.000000 MHz	54.5403	21.3047
870.000000 MHz	54.4996	21.3342
875.000000 MHz	54.4146	21.2734
880.000000 MHz	54.3659	21.2208
885.000000 MHz	54.2899	21.2324
890.000000 MHz	54.2485	21.1671
895.000000 MHz	54.1696	21.1383
900.000000 MHz	54.0775	21.0734

■ Dielectric Parameter (1900MHz Head)**Title : PG-3310****SubTitle : GSM1900 Head**

February 22, 2006 10:45 AM

Frequency	e'	e''
1.800000000 GHz	38.7326	13.4692
1.810000000 GHz	38.6862	13.5273
1.820000000 GHz	38.6706	13.5791
1.830000000 GHz	38.6186	13.7033
1.840000000 GHz	38.6319	13.7583
1.850000000 GHz	38.5774	13.8029
1.860000000 GHz	38.5712	13.8363
1.870000000 GHz	38.5199	13.8374
1.880000000 GHz	38.4720	13.8279
1.890000000 GHz	38.4256	13.8001
1.900000000 GHz	38.3644	13.7996
1.910000000 GHz	38.3121	13.7880
1.920000000 GHz	38.2112	13.8100
1.930000000 GHz	38.1726	13.8639
1.940000000 GHz	38.1284	13.9302
1.950000000 GHz	38.1103	13.9801
1.960000000 GHz	38.1010	14.0650
1.970000000 GHz	38.0848	14.1366
1.980000000 GHz	38.0811	14.1392
1.990000000 GHz	38.0462	14.1732
2.000000000 GHz	38.0052	14.1418

■ Dielectric Parameter (1900MHz Body)

Title : PG-3310

SubTitle : GSM1900 Body

February 22, 2006 04:10 PM

Frequency	e'	e''
1.800000000 GHz	53.2855	14.0616
1.810000000 GHz	53.2303	14.1047
1.820000000 GHz	53.2142	14.1358
1.830000000 GHz	53.1279	14.1306
1.840000000 GHz	53.0554	14.0775
1.850000000 GHz	52.9249	14.0881
1.860000000 GHz	52.8065	14.1181
1.870000000 GHz	52.7490	14.1814
1.880000000 GHz	52.6929	14.2838
1.890000000 GHz	52.6182	14.4107
1.900000000 GHz	52.6094	14.5036
1.910000000 GHz	52.6126	14.6146
1.920000000 GHz	52.6182	14.7017
1.930000000 GHz	52.6226	14.7573
1.940000000 GHz	52.6020	14.7527
1.950000000 GHz	52.5577	14.7598
1.960000000 GHz	52.4575	14.7403
1.970000000 GHz	52.3979	14.7125
1.980000000 GHz	52.2904	14.7166
1.990000000 GHz	52.1702	14.7772
2.000000000 GHz	52.0941	14.8291

■ Validation Data (835MHz Head)

Test Laboratory: HCT

835 Dipole Validation test: Input power(1W)

Liquid Temperature : 21.4 °C

Date Tested : March 03, 2006

DUT: Dipole 835 MHz; Type: D835V2; Serial: D835V2 - SN:441

Program Name: Validation

Communication System: CW; Frequency: 835 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 835 \text{ MHz}$; $\sigma = 0.87 \text{ mho/m}$; $\epsilon_r = 41.4$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1607; ConvF(6.18, 6.18, 6.18); Calibrated: 2005-08-30

- Sensor-Surface: 4mm (Mechanical Surface Detection)

- Electronics: DAE3 Sn446; Calibrated: 2005-05-24

- Phantom: SAM 835/900 MHz; Type: SAM

Validation 835 MHz/Area Scan (61x81x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

Maximum value of SAR (interpolated) = 10.3 mW/g

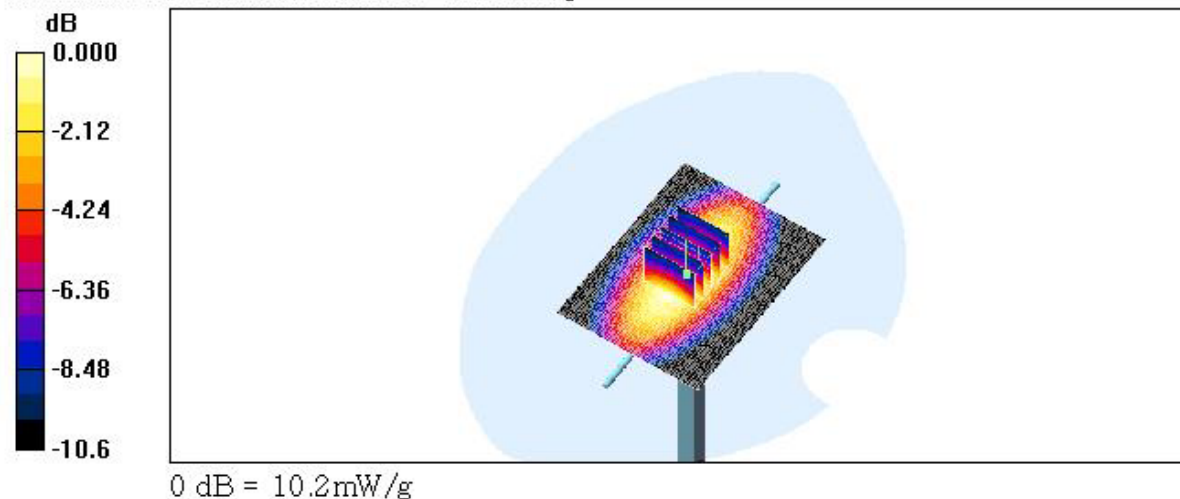
Validation 835 MHz/Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=8\text{mm}$, $dy=8\text{mm}$, $dz=5\text{mm}$

Reference Value = 111.0 V/m; Power Drift = -0.014 dB

Peak SAR (extrapolated) = 14.2 W/kg

SAR(1 g) = 9.51 mW/g; SAR(10 g) = 6.2 mW/g

Maximum value of SAR (measured) = 10.2 mW/g



■ Validation Data (1900MHz Head)

Test Laboratory: HCT

1900 Dipole Validation test: Input power(1W)
Liquid Temperature : 21.4 °C
Date Tested : March 08, 2006

DUT: Dipole 1900 MHz; Type: D1900V2; Serial: D1900V2 - SN:5d032
Program Name: Validation

Communication System: CW; Frequency: 1900 MHz; Duty Cycle: 1:1
Medium parameters used: $f = 1900$ MHz; $\sigma = 1.44$ mho/m; $\epsilon_r = 40$; $\rho = 1000$ kg/m³
Phantom section: Flat Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1607; ConvF(5.14, 5.14, 5.14); Calibrated: 2005-08-30
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn446; Calibrated: 2005-05-24
- Phantom: SAM 1800/1900 MHz; Type: SAM

Dipole 1900MHz Validation/Area Scan (61x61x1): Measurement grid: $dx=15$ mm, $dy=15$ mm
Maximum value of SAR (interpolated) = 47.1 mW/g

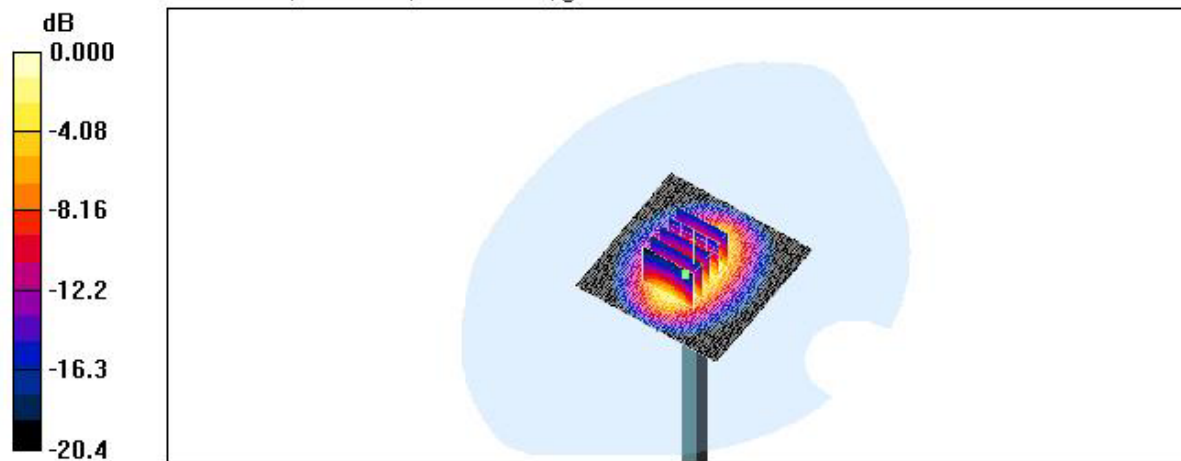
Dipole 1900MHz Validation/Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=8$ mm, $dy=8$ mm, $dz=5$ mm

Reference Value = 188.8 V/m; Power Drift = 0.032 dB

Peak SAR (extrapolated) = 73.1 W/kg

SAR(1 g) = 40.4 mW/g; SAR(10 g) = 20.7 mW/g

Maximum value of SAR (measured) = 45.4 mW/g



0 dB = 45.4mW/g

■ Dielectric Parameter (835MHz Head)

Title : PG-3310

SubTitle : GSM850 Head

March 03, 2006 03:45 AM

Frequency	e'	e''
800.000000 MHz	41.8943	18.7250
805.000000 MHz	41.8992	18.7517
810.000000 MHz	41.7982	18.7425
815.000000 MHz	41.7167	18.7604
820.000000 MHz	41.6778	18.7347
825.000000 MHz	41.6188	18.7678
830.000000 MHz	41.5251	18.7472
835.000000 MHz	41.3986	18.7362
840.000000 MHz	41.2808	18.7130
845.000000 MHz	41.1933	18.6819
850.000000 MHz	41.1576	18.6472
855.000000 MHz	41.0464	18.6342
860.000000 MHz	41.0177	18.6186
865.000000 MHz	40.9131	18.5843
870.000000 MHz	40.7817	18.5583
875.000000 MHz	40.6945	18.5405
880.000000 MHz	40.6575	18.5538
885.000000 MHz	40.5515	18.5671
890.000000 MHz	40.4322	18.5298
895.000000 MHz	40.3664	18.4679
900.000000 MHz	40.3237	18.4491

■ Dielectric Parameter (835MHz Body)**Title : PG-3310****SubTitle : GSM850 Body**

March 03, 2006 10:52 AM

Frequency	e'	e''
800.000000 MHz	55.0582	21.1776
805.000000 MHz	55.0289	21.1597
810.000000 MHz	54.9632	21.1324
815.000000 MHz	54.9177	21.1882
820.000000 MHz	54.9228	21.1634
825.000000 MHz	54.8394	21.1543
830.000000 MHz	54.7614	21.2158
835.000000 MHz	54.7440	21.1826
840.000000 MHz	54.6681	21.2265
845.000000 MHz	54.6585	21.2673
850.000000 MHz	54.6342	21.3241
855.000000 MHz	54.5893	21.3228
860.000000 MHz	54.4954	21.2751
865.000000 MHz	54.4599	21.2923
870.000000 MHz	54.4254	21.3089
875.000000 MHz	54.3319	21.2947
880.000000 MHz	54.3370	21.2426
885.000000 MHz	54.2386	21.2099
890.000000 MHz	54.1680	21.1775
895.000000 MHz	54.0989	21.0925
900.000000 MHz	54.0106	21.0369

■ Dielectric Parameter (1900MHz Head)**Title : PG-3310****SubTitle : GSM1900 Head**

March 03, 2006 01:20 PM

Frequency	e'	e''
1.800000000 GHz	40.3715	13.2357
1.810000000 GHz	40.2659	13.2940
1.820000000 GHz	40.2449	13.3975
1.830000000 GHz	40.2200	13.5306
1.840000000 GHz	40.2291	13.6663
1.850000000 GHz	40.2460	13.7630
1.860000000 GHz	40.2239	13.8050
1.870000000 GHz	40.2193	13.8296
1.880000000 GHz	40.1686	13.7808
1.890000000 GHz	40.1043	13.7144
1.900000000 GHz	40.0074	13.6249
1.910000000 GHz	39.8972	13.5783
1.920000000 GHz	39.7838	13.5617
1.930000000 GHz	39.7175	13.5836
1.940000000 GHz	39.6654	13.6885
1.950000000 GHz	39.5965	13.8192
1.960000000 GHz	39.6250	13.9329
1.970000000 GHz	39.6497	14.0606
1.980000000 GHz	39.6760	14.1481
1.990000000 GHz	39.6736	14.1687
2.000000000 GHz	39.6444	14.1305

■ Dielectric Parameter (1900MHz Body)

Title : PG-3310

SubTitle : GSM1900 Body

March 03, 2006 03:40 PM

Frequency	e'	e''
1.800000000 GHz	53.0084	13.6320
1.810000000 GHz	52.9351	13.7399
1.820000000 GHz	52.8688	13.8238
1.830000000 GHz	52.7765	13.8914
1.840000000 GHz	52.7180	13.9659
1.850000000 GHz	52.6728	14.0076
1.860000000 GHz	52.5971	14.0371
1.870000000 GHz	52.5069	14.0803
1.880000000 GHz	52.4462	14.1338
1.890000000 GHz	52.3379	14.1481
1.900000000 GHz	52.2536	14.1668
1.910000000 GHz	52.1593	14.2278
1.920000000 GHz	52.1322	14.2892
1.930000000 GHz	52.1209	14.3615
1.940000000 GHz	52.0626	14.4737
1.950000000 GHz	52.0519	14.5494
1.960000000 GHz	51.9905	14.6297
1.970000000 GHz	51.9586	14.6433
1.980000000 GHz	51.9324	14.6914
1.990000000 GHz	51.8785	14.7159
2.000000000 GHz	51.8131	14.7340