Appendix D: SAR Measurement Data

Data No.	Band	Mode	Test Position	Separation Distance (cm)	Channel	SAR 1g(W/kg)
1	Wifi	802.11b	EUT Bottom	0.5	1	0.001
2	Wifi	802.11b	EUT Top	0.5	1	**0.620**
3	Wifi	802.11b	EUT Edge of Right	0.5	1	0.011
4	Wifi	802.11b	EUT Edge of up	0.5	1	0.001
5	Wifi	802.11b	EUT Top	0.5	6	0.562
6	Wifi	802.11b	EUT Top	0.5	11	0.448
7	Wifi	802.11g	EUT Top	0.5	11	0.284
8	Wifi	802.11n 20	EUT Top	0.5	1	0.181
9	Wifi	802.11n 40	EUT Top	0.5	3	0.235

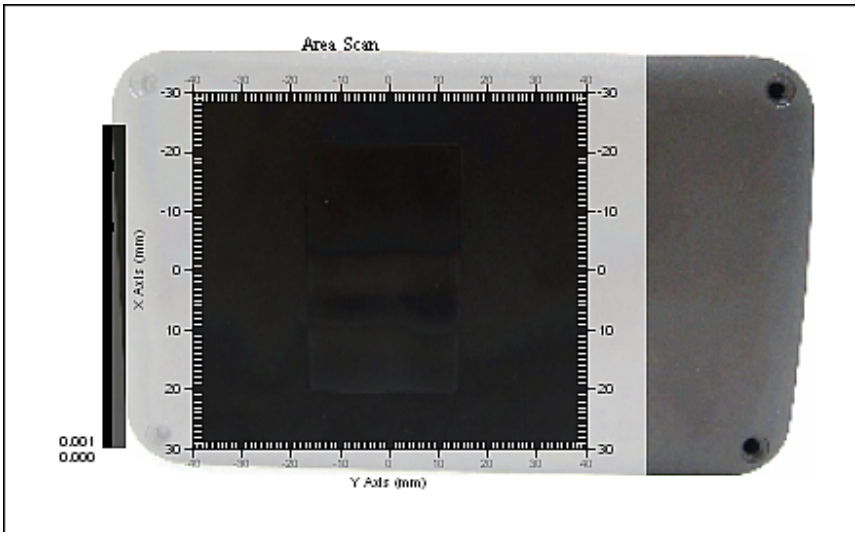
Data No. 1:

```
Report Date        : 11-May-2012
By Operator        : Dino
Measurement Date   : 11-May-2012
Starting Time      : 11-May-2012  04:59:45 PM
End Time           : 11-May-2012  05:19:53 PM
Scanning Time      : 1208 secs

Product Data
Device Name        : ULT-HDD
Serial No.         : NA
Type               : Other
Model              : NA
Frequency          : 2450.00 MHz
Max. Transmit Pwr  : 0.25 W
Drift Time         : 0 min(s)
Length             : 85 mm
Width              : 140 mm
Depth              : 23 mm
Antenna Type       : Internal
Orientation        : Touch
Power Drift-Start  : 0.001 W/kg
Power Drift-Finish: 0.000 W/kg
Power Drift (%)    : 0.000
Picture            : C:\alsas\bitmap\Device-4.bmp

Phantom Data
Name             : APREL-Uni
Type             : Uni-Phantom
Size (mm)        : 280 x 280 x 200
Serial No.       : User Define
Location         : Center
Description      : Unit phantom

Tissue Data
Type             : BODY
Serial No.       : 2450_Body
Frequency        : 2450.00 MHz
Last Calib. Date : 21-Mar-2012
Temperature      : 22.00 °C
Ambient Temp.    : 21.70 °C
Humidity         : 60.00 RH%
Epsilon          : 53.83 F/m
Sigma            : 2.04 S/m
Density          : 1000.00 kg/cu. m
```

Probe Data
Name : E-field Probe
Model : ALS-E-020
Type : E-Field Triangle
Serial No. : 266
Last Calib. Date : 08-Aug-2011
Frequency : 2450.00 MHz
Duty Cycle Factor: 1
Conversion Factor: 4.55
Probe Sensitivity: 1.20 1.20 1.20 $\mu V/(V/m)^2$
Compression Point: 95.00 mV
Offset : 1.56 mm

Measurement Data
Crest Factor : 1
Scan Type : Complete
Tissue Temp. : 22.00 °C
Ambient Temp. : 21.70 °C
Set-up Date : 11-May-2012
Set-up Time : 3:29:45 PM
Area Scan : 7x9x1 : Measurement x=10mm, y=10mm, z=4mm
Zoom Scan : 5x5x8 : Measurement x=8mm, y=8mm, z=4mm

Other Data
DUT Position : Touch
Separation : 5 mm
Channel : Low



1 gram SAR value : 0.001 W/kg
10 gram SAR value : 0.001 W/kg
Area Scan Peak SAR : 0.001 W/kg
Zoom Scan Peak SAR : 0.000 W/kg

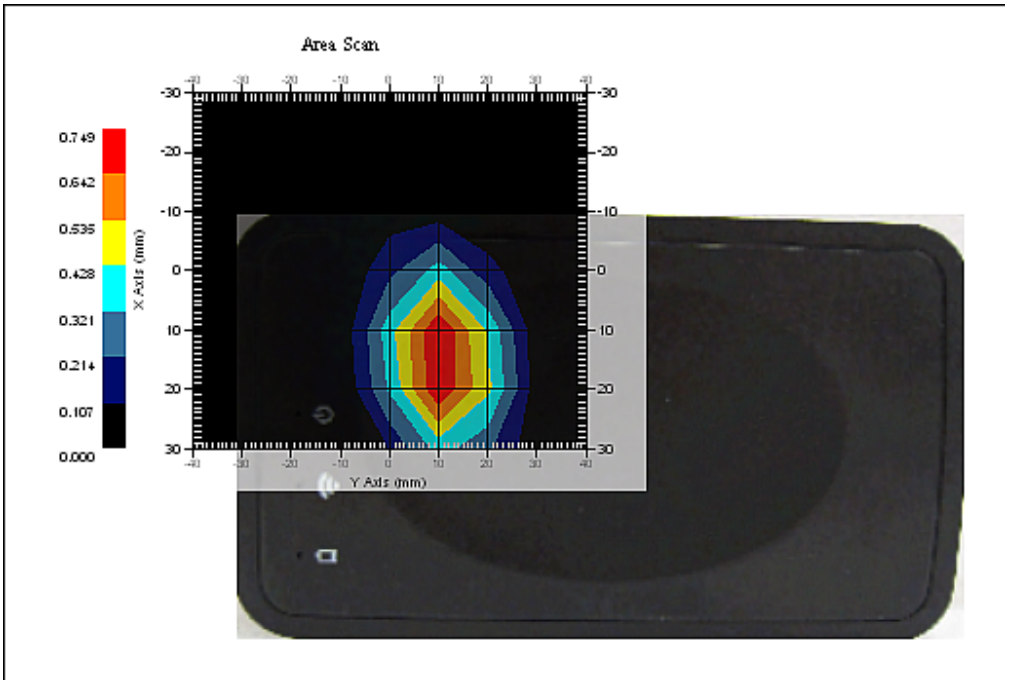
Data No. 2:

```
Report Date        : 14-May-2012
By Operator        : Dino
Measurement Date   : 14-May-2012
Starting Time      : 14-May-2012  11:17:27 AM
End Time           : 14-May-2012  11:37:20 AM
Scanning Time      : 1193 secs

Product Data
Device Name        : ULT-HDD
Serial No.         : NA
Type               : Other
Model              : NA
Frequency          : 2450.00 MHz
Max. Transmit Pwr  : 0.25 W
Drift Time         : 0 min(s)
Length             : 85 mm
Width              : 145 mm
Depth              : 23 mm
Antenna Type       : Internal
Orientation        : Touch
Power Drift-Start  : 0.198 W/kg
Power Drift-Finish: 0.177 W/kg
Power Drift (%)    : -10.598
Picture            : C:\alsas\bitmap\Device-4.bmp

Phantom Data
Name               : APREL-Uni
Type               : Uni-Phantom
Size (mm)          : 280 x 280 x 200
Serial No.         : User Define
Location           : Center
Description        : Unit phantom

Tissue Data
Type               : BODY
Serial No.         : 2450_Body
Frequency          : 2450.00 MHz
Last Calib. Date   : 21-Mar-2012
Temperature        : 22.00 °C
Ambient Temp.      : 21.70 °C
Humidity           : 60.00 RH%
Epsilon            : 53.83 F/m
Sigma              : 2.04 S/m
Density            : 1000.00 kg/cu. m
```

Probe Data
Name : E-field Probe
Model : ALS-E-020
Type : E-Field Triangle
Serial No. : 266
Last Calib. Date : 08-Aug-2011
Frequency : 2450.00 MHz
Duty Cycle Factor: 1
Conversion Factor: 4.55
Probe Sensitivity: 1.20 1.20 1.20 $\mu V/(V/m)^2$
Compression Point: 95.00 mV
Offset : 1.56 mm

Measurement Data
Crest Factor : 1
Scan Type : Complete
Tissue Temp. : 22.00 °C
Ambient Temp. : 21.70 °C
Set-up Date : 14-May-2012
Set-up Time : 3:29:45 PM
Area Scan : 7x9x1 : Measurement x=10mm, y=10mm, z=4mm
Zoom Scan : 5x5x8 : Measurement x=8mm, y=8mm, z=4mm

Other Data
DUT Position : Touch
Separation : 5 mm
Channel : Low



1 gram SAR value : 0.620 W/kg
10 gram SAR value : 0.253 W/kg
Area Scan Peak SAR : 0.746 W/kg
Zoom Scan Peak SAR : 1.231 W/kg

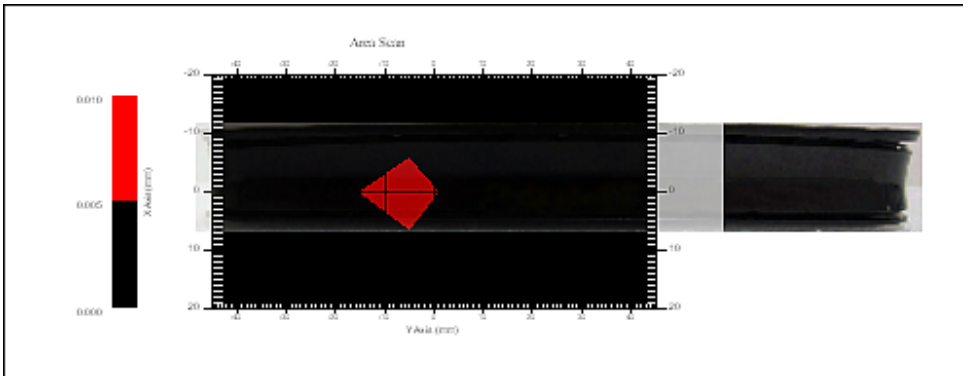
Data No. 3:

```
Report Date        : 11-May-2012
By Operator        : Dino
Measurement Date   : 11-May-2012
Starting Time      : 11-May-2012  05:46:56 PM
End Time           : 11-May-2012  06:04:46 PM
Scanning Time      : 1070 secs

Product Data
Device Name        : ULT-HDD
Serial No.         : NA
Type               : Other
Model              : NA
Frequency          : 2450.00 MHz
Max. Transmit Pwr  : 0.25 W
Drift Time         : 0 min(s)
Length             : 23 mm
Width              : 145 mm
Depth              : 85 mm
Antenna Type       : Internal
Orientation        : Touch
Power Drift-Start  : 0.001 W/kg
Power Drift-Finish: 0.001 W/kg
Power Drift (%)    : 6.656
Picture            : C:\alsas\bitmap\Device-4.bmp

Phantom Data
Name             : APREL-Uni
Type             : Uni-Phantom
Size (mm)        : 280 x 280 x 200
Serial No.       : User Define
Location         : Center
Description      : Unit phantom

Tissue Data
Type             : BODY
Serial No.       : 2450_Body
Frequency        : 2450.00 MHz
Last Calib. Date : 21-Mar-2012
Temperature      : 22.00 °C
Ambient Temp.    : 21.70 °C
Humidity         : 60.00 RH%
Epsilon          : 53.83 F/m
Sigma            : 2.04 S/m
Density          : 1000.00 kg/cu. m
```

Probe Data
Name : E-field Probe
Model : ALS-E-020
Type : E-Field Triangle
Serial No. : 266
Last Calib. Date : 08-Aug-2011
Frequency : 2450.00 MHz
Duty Cycle Factor: 1
Conversion Factor: 4.55
Probe Sensitivity: 1.20 1.20 1.20 $\mu V/(V/m)^2$
Compression Point: 95.00 mV
Offset : 1.56 mm

Measurement Data
Crest Factor : 1
Scan Type : Complete
Tissue Temp. : 22.00 °C
Ambient Temp. : 21.70 °C
Set-up Date : 11-May-2012
Set-up Time : 3:29:45 PM
Area Scan : 5x10x1 : Measurement x=10mm, y=10mm, z=4mm
Zoom Scan : 5x5x8 : Measurement x=8mm, y=8mm, z=4mm

Other Data
DUT Position : Touch
Separation : 5 mm
Channel : Low



1 gram SAR value : 0.011 W/kg
10 gram SAR value : 0.004 W/kg
Area Scan Peak SAR : 0.010 W/kg
Zoom Scan Peak SAR : 0.040 W/kg

Data No. 4:

```
Report Date        : 11-May-2012
By Operator        : Dino
Measurement Date   : 11-May-2012
Starting Time      : 11-May-2012  05:26:53 PM
End Time           : 11-May-2012  05:40:39 PM
Scanning Time      : 826 secs

Product Data
Device Name        : ULT-HDD
Serial No.         : NA
Type               : Other
Model              : NA
Frequency          : 2450.00 MHz
Max. Transmit Pwr  : 0.25 W
Drift Time         : 0 min(s)
Length             : 23 mm
Width              : 85 mm
Depth              : 145 mm
Antenna Type       : Internal
Orientation        : Touch
Power Drift-Start  : 0.001 W/kg
Power Drift-Finish: 0.000 W/kg
Power Drift (%)    : 0.000
Picture            : C:\alsas\bitmap\Device-4.bmp

Phantom Data
Name             : APREL-Uni
Type             : Uni-Phantom
Size (mm)        : 280 x 280 x 200
Serial No.       : User Define
Location         : Center
Description      : Unit phantom

Tissue Data
Type             : BODY
Serial No.       : 2450_Body
Frequency        : 2450.00 MHz
Last Calib. Date : 21-Mar-2012
Temperature      : 22.00 °C
Ambient Temp.    : 21.70 °C
Humidity         : 60.00 RH%
Epsilon          : 53.83 F/m
Sigma            : 2.04 S/m
Density          : 1000.00 kg/cu. m
```

Probe Data
Name : E-field Probe
Model : ALS-E-020
Type : E-Field Triangle
Serial No. : 266
Last Calib. Date : 08-Aug-2011
Frequency : 2450.00 MHz
Duty Cycle Factor: 1
Conversion Factor: 4.55
Probe Sensitivity: 1.20 1.20 1.20 $\mu V/(V/m)^2$
Compression Point: 95.00 mV
Offset : 1.56 mm

Measurement Data
Crest Factor : 1
Scan Type : Complete
Tissue Temp. : 22.00 °C
Ambient Temp. : 21.70 °C
Set-up Date : 11-May-2012
Set-up Time : 3:29:45 PM
Area Scan : 5x5x1 : Measurement x=10mm, y=10mm, z=4mm
Zoom Scan : 5x5x8 : Measurement x=8mm, y=8mm, z=4mm

Other Data
DUT Position : Touch
Separation : 5 mm
Channel : Low

1 gram SAR value : 0.001 W/kg
10 gram SAR value : 0.001 W/kg
Area Scan Peak SAR : 0.001 W/kg
Zoom Scan Peak SAR : 0.000 W/kg

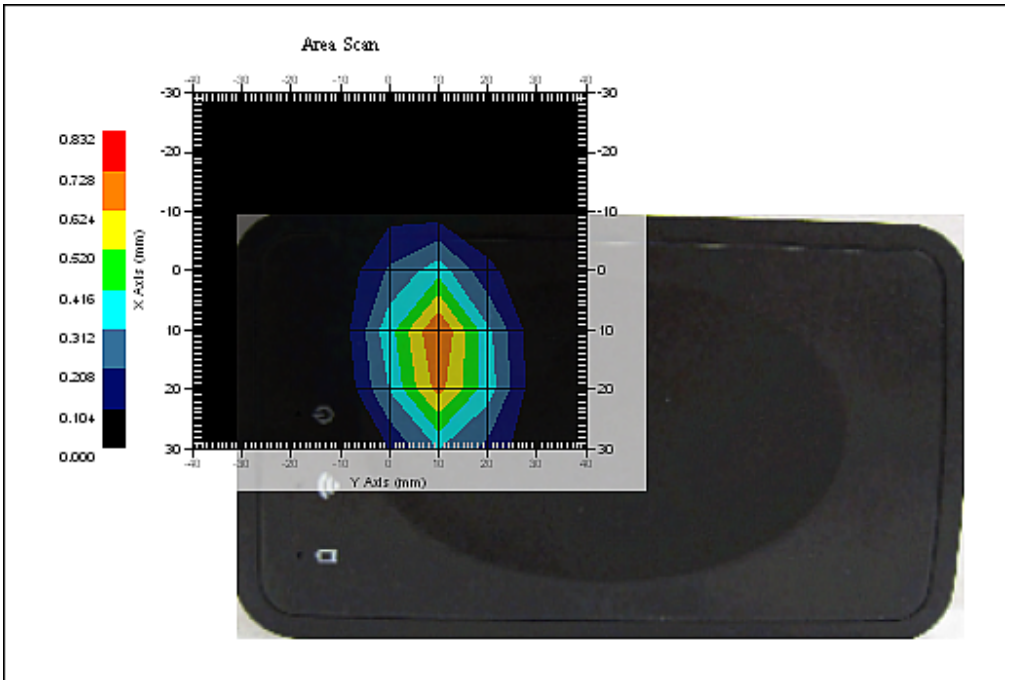
Data No. 5:

```
Report Date        : 14-May-2012
By Operator        : Dino
Measurement Date   : 14-May-2012
Starting Time      : 14-May-2012  10:50:06 AM
End Time           : 14-May-2012  11:10:04 AM
Scanning Time      : 1198 secs

Product Data
Device Name        : ULT-HDD
Serial No.         : NA
Type               : Other
Model              : NA
Frequency          : 2450.00 MHz
Max. Transmit Pwr  : 0.25 W
Drift Time         : 0 min(s)
Length             : 85 mm
Width              : 145 mm
Depth              : 23 mm
Antenna Type       : Internal
Orientation        : Touch
Power Drift-Start  : 0.250 W/kg
Power Drift-Finish: 0.211 W/kg
Power Drift (%)    : -15.622
Picture            : C:\alsas\bitmap\Device-4.bmp

Phantom Data
Name             : APREL-Uni
Type             : Uni-Phantom
Size (mm)        : 280 x 280 x 200
Serial No.       : User Define
Location         : Center
Description      : Unit phantom

Tissue Data
Type             : BODY
Serial No.       : 2450_Body
Frequency        : 2450.00 MHz
Last Calib. Date : 21-Mar-2012
Temperature      : 22.00 °C
Ambient Temp.    : 21.70 °C
Humidity         : 60.00 RH%
Epsilon          : 53.83 F/m
Sigma            : 2.04 S/m
Density          : 1000.00 kg/cu. m
```

Probe Data
Name : E-field Probe
Model : ALS-E-020
Type : E-Field Triangle
Serial No. : 266
Last Calib. Date : 08-Aug-2011
Frequency : 2450.00 MHz
Duty Cycle Factor: 1
Conversion Factor: 4.55
Probe Sensitivity: 1.20 1.20 1.20 $\mu V/(V/m)^2$
Compression Point: 95.00 mV
Offset : 1.56 mm

Measurement Data
Crest Factor : 1
Scan Type : Complete
Tissue Temp. : 22.00 °C
Ambient Temp. : 21.70 °C
Set-up Date : 14-May-2012
Set-up Time : 3:29:45 PM
Area Scan : 7x9x1 : Measurement x=10mm, y=10mm, z=4mm
Zoom Scan : 5x5x8 : Measurement x=8mm, y=8mm, z=4mm

Other Data
DUT Position : Touch
Separation : 5 mm
Channel : Mid



1 gram SAR value : 0.562 W/kg
10 gram SAR value : 0.241 W/kg
Area Scan Peak SAR : 0.730 W/kg
Zoom Scan Peak SAR : 1.110 W/kg

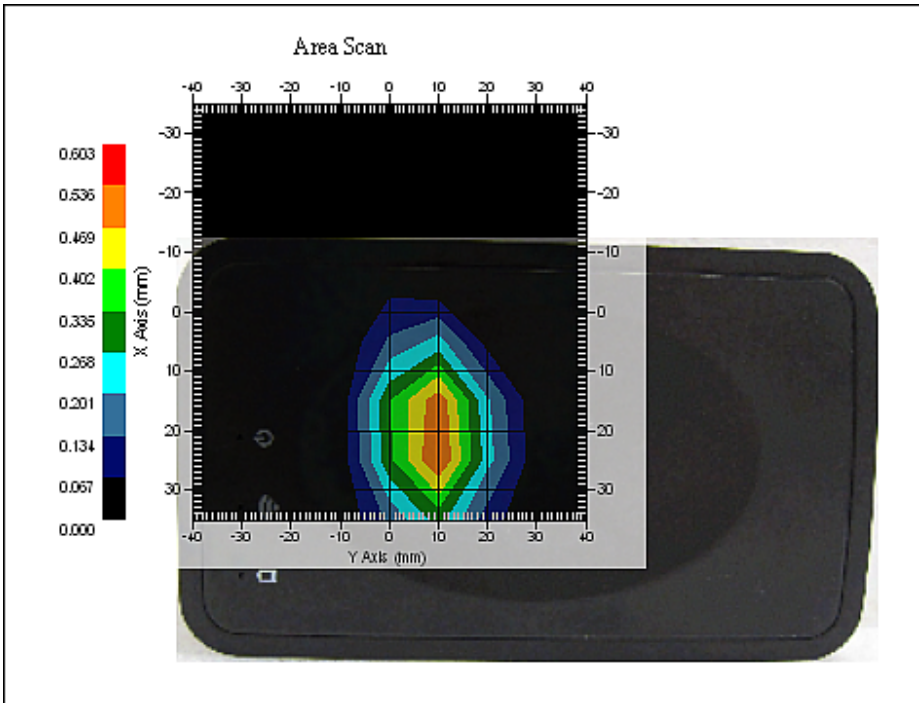
Data No. 6:

```
Report Date        : 11-May-2012
By Operator        : Dino
Measurement Date   : 11-May-2012
Starting Time      : 11-May-2012  04:19:40 PM
End Time           : 11-May-2012  04:41:00 PM
Scanning Time      : 1280 secs

Product Data
Device Name        : ULT-HDD
Serial No.         : NA
Type               : Other
Model              : NA
Frequency          : 2450.00 MHz
Max. Transmit Pwr  : 0.25 W
Drift Time         : 0 min(s)
Length             : 85 mm
Width              : 140 mm
Depth              : 23 mm
Antenna Type       : Internal
Orientation        : Touch
Power Drift-Start  : 0.040 W/kg
Power Drift-Finish: 0.035 W/kg
Power Drift (%)    : -10.694
Picture            : C:\alsas\bitmap\Device-3.bmp

Phantom Data
Name             : APREL-Uni
Type             : Uni-Phantom
Size (mm)        : 280 x 280 x 200
Serial No.       : User Define
Location         : Center
Description      : Unit phantom

Tissue Data
Type             : BODY
Serial No.       : 2450_Body
Frequency        : 2450.00 MHz
Last Calib. Date : 21-Mar-2012
Temperature      : 22.00 °C
Ambient Temp.    : 21.70 °C
Humidity         : 60.00 RH%
Epsilon          : 53.83 F/m
Sigma            : 2.04 S/m
Density          : 1000.00 kg/cu. m
```

Probe Data
Name : E-field Probe
Model : ALS-E-020
Type : E-Field Triangle
Serial No. : 266
Last Calib. Date : 08-Aug-2011
Frequency : 2450.00 MHz
Duty Cycle Factor: 1
Conversion Factor: 4.55
Probe Sensitivity: 1.20 1.20 1.20 $\mu V/(V/m)^2$
Compression Point: 95.00 mV
Offset : 1.56 mm

Measurement Data
Crest Factor : 1
Scan Type : Complete
Tissue Temp. : 22.00 °C
Ambient Temp. : 21.70 °C
Set-up Date : 11-May-2012
Set-up Time : 3:29:45 PM
Area Scan : 8x9x1 : Measurement x=10mm, y=10mm, z=4mm
Zoom Scan : 5x5x8 : Measurement x=8mm, y=8mm, z=4mm

Other Data
DUT Position : Touch
Separation : 5 mm
Channel : High



1 gram SAR value : 0.448 W/kg
10 gram SAR value : 0.187 W/kg
Area Scan Peak SAR : 0.539 W/kg
Zoom Scan Peak SAR : 0.870 W/kg

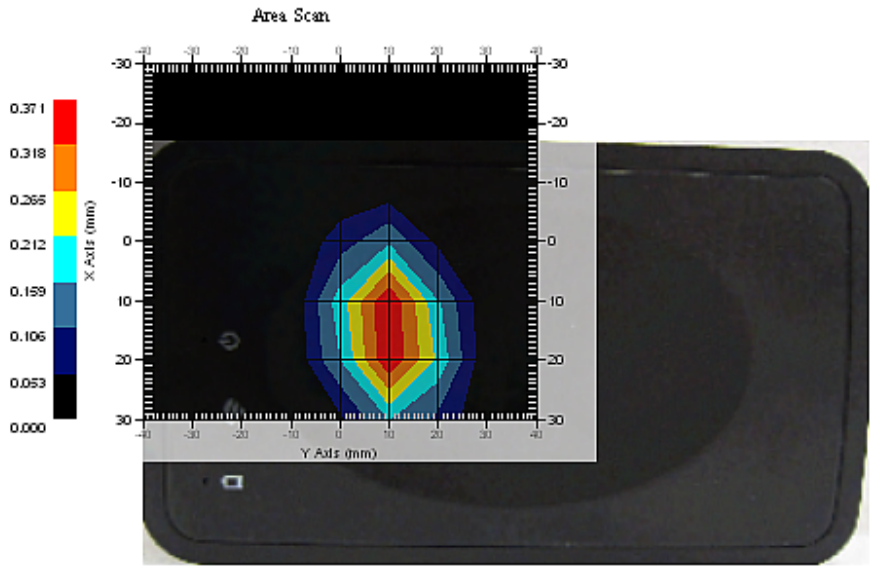
Data No. 7:

```
Report Date        : 14-May-2012
By Operator        : Dino
Measurement Date   : 14-May-2012
Starting Time      : 14-May-2012  09:47:50 AM
End Time           : 14-May-2012  10:07:46 AM
Scanning Time      : 1196 secs

Product Data
Device Name        : ULT-HDD
Serial No.         : NA
Type               : Other
Model              : NA
Frequency          : 2450.00 MHz
Max. Transmit Pwr  : 0.25 W
Drift Time         : 0 min(s)
Length             : 85 mm
Width              : 145 mm
Depth              : 23 mm
Antenna Type       : Internal
Orientation        : Touch
Power Drift-Start  : 0.099 W/kg
Power Drift-Finish: 0.070 W/kg
Power Drift (%)    : -29.182
Picture            : C:\alsas\bitmap\Device-4.bmp

Phantom Data
Name             : APREL-Uni
Type             : Uni-Phantom
Size (mm)        : 280 x 280 x 200
Serial No.       : User Define
Location         : Center
Description      : Unit phantom

Tissue Data
Type             : BODY
Serial No.       : 2450_Body
Frequency        : 2450.00 MHz
Last Calib. Date : 21-Mar-2012
Temperature      : 22.00 °C
Ambient Temp.    : 21.70 °C
Humidity         : 60.00 RH%
Epsilon          : 53.83 F/m
Sigma            : 2.04 S/m
Density          : 1000.00 kg/cu. m
```

Probe Data
Name : E-field Probe
Model : ALS-E-020
Type : E-Field Triangle
Serial No. : 266
Last Calib. Date : 08-Aug-2011
Frequency : 2450.00 MHz
Duty Cycle Factor: 1
Conversion Factor: 4.55
Probe Sensitivity: 1.20 1.20 1.20 $\mu V/(V/m)^2$
Compression Point: 95.00 mV
Offset : 1.56 mm

Measurement Data
Crest Factor : 1
Scan Type : Complete
Tissue Temp. : 22.00 °C
Ambient Temp. : 21.70 °C
Set-up Date : 14-May-2012
Set-up Time : 3:29:45 PM
Area Scan : 7x9x1 : Measurement x=10mm, y=10mm, z=4mm
Zoom Scan : 5x5x8 : Measurement x=8mm, y=8mm, z=4mm

Other Data
DUT Position : Touch
Separation : 5 mm
Channel : Mid



1 gram SAR value : 0.284 W/kg
10 gram SAR value : 0.112 W/kg
Area Scan Peak SAR : 0.368 W/kg
Zoom Scan Peak SAR : 0.580 W/kg

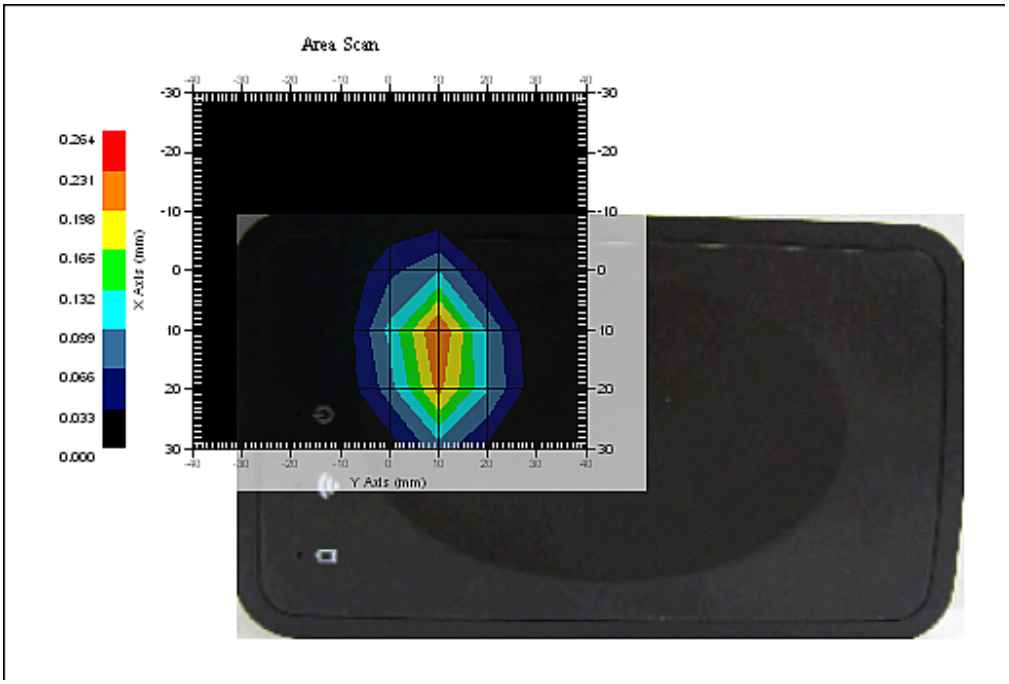
Data No. 8:

```
Report Date        : 14-May-2012
By Operator        : Dino
Measurement Date   : 14-May-2012
Starting Time      : 14-May-2012  10:14:41 AM
End Time           : 14-May-2012  10:34:36 AM
Scanning Time      : 1195 secs

Product Data
Device Name        : ULT-HDD
Serial No.         : NA
Type               : Other
Model              : NA
Frequency          : 2450.00 MHz
Max. Transmit Pwr  : 0.25 W
Drift Time         : 0 min(s)
Length             : 85 mm
Width              : 145 mm
Depth              : 23 mm
Antenna Type       : Internal
Orientation        : Touch
Power Drift-Start  : 0.066 W/kg
Power Drift-Finish: 0.042 W/kg
Power Drift (%)    : -36.375
Picture            : C:\alsas\bitmap\Device-4.bmp

Phantom Data
Name             : APREL-Uni
Type             : Uni-Phantom
Size (mm)        : 280 x 280 x 200
Serial No.       : User Define
Location         : Center
Description      : Unit phantom

Tissue Data
Type             : BODY
Serial No.       : 2450_Body
Frequency        : 2450.00 MHz
Last Calib. Date : 21-Mar-2012
Temperature      : 22.00 °C
Ambient Temp.    : 21.70 °C
Humidity         : 60.00 RH%
Epsilon          : 53.83 F/m
Sigma            : 2.04 S/m
Density          : 1000.00 kg/cu. m
```

Probe Data
Name : E-field Probe
Model : ALS-E-020
Type : E-Field Triangle
Serial No. : 266
Last Calib. Date : 08-Aug-2011
Frequency : 2450.00 MHz
Duty Cycle Factor: 1
Conversion Factor: 4.55
Probe Sensitivity: 1.20 1.20 1.20 $\mu V/(V/m)^2$
Compression Point: 95.00 mV
Offset : 1.56 mm

Measurement Data
Crest Factor : 1
Scan Type : Complete
Tissue Temp. : 22.00 °C
Ambient Temp. : 21.70 °C
Set-up Date : 14-May-2012
Set-up Time : 3:29:45 PM
Area Scan : 7x9x1 : Measurement x=10mm, y=10mm, z=4mm
Zoom Scan : 5x5x8 : Measurement x=8mm, y=8mm, z=4mm

Other Data
DUT Position : Touch
Separation : 5 mm
Channel : Low



1 gram SAR value : 0.181 W/kg
10 gram SAR value : 0.068 W/kg
Area Scan Peak SAR : 0.232 W/kg
Zoom Scan Peak SAR : 0.370 W/kg

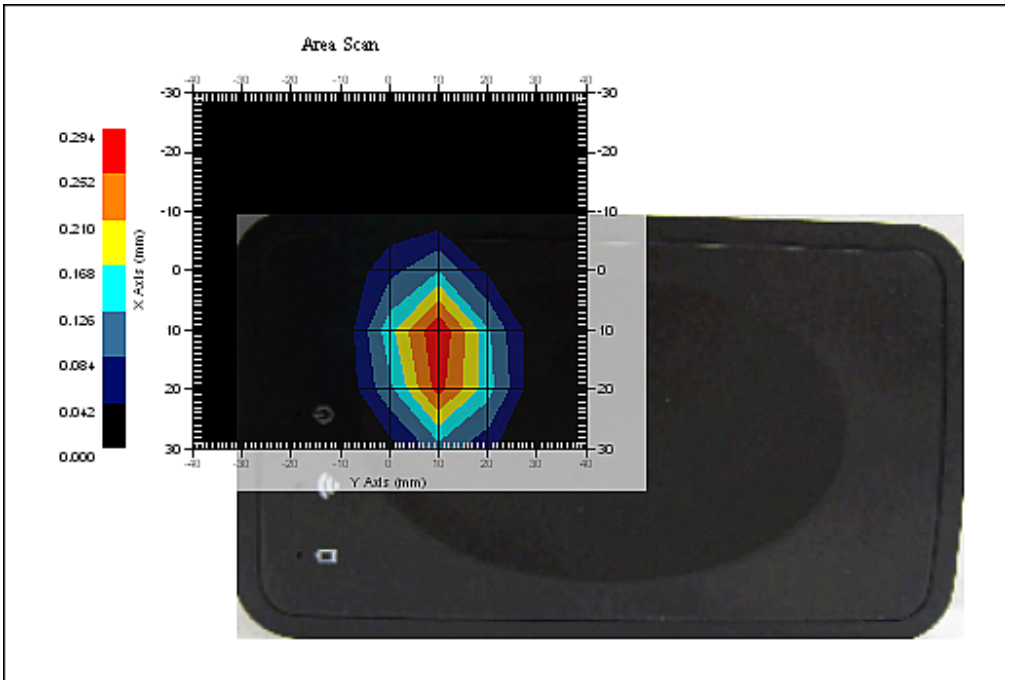
Data No. 9:

```
Report Date        : 14-May-2012
By Operator        : Dino
Measurement Date   : 14-May-2012
Starting Time      : 14-May-2012  11:43:12 AM
End Time           : 14-May-2012  12:03:06 PM
Scanning Time      : 1194 secs

Product Data
Device Name        : ULT-HDD
Serial No.         : NA
Type               : Other
Model              : NA
Frequency          : 2450.00 MHz
Max. Transmit Pwr  : 0.25 W
Drift Time         : 0 min(s)
Length             : 85 mm
Width              : 145 mm
Depth              : 23 mm
Antenna Type       : Internal
Orientation        : Touch
Power Drift-Start  : 0.080 W/kg
Power Drift-Finish: 0.068 W/kg
Power Drift (%)    : -14.835
Picture            : C:\alsas\bitmap\Device-4.bmp

Phantom Data
Name             : APREL-Uni
Type             : Uni-Phantom
Size (mm)        : 280 x 280 x 200
Serial No.       : User Define
Location         : Center
Description      : Unit phantom

Tissue Data
Type             : BODY
Serial No.       : 2450_Body
Frequency        : 2450.00 MHz
Last Calib. Date : 21-Mar-2012
Temperature      : 22.00 °C
Ambient Temp.    : 21.70 °C
Humidity         : 60.00 RH%
Epsilon          : 53.83 F/m
Sigma            : 2.04 S/m
Density          : 1000.00 kg/cu. m
```

Probe Data
Name : E-field Probe
Model : ALS-E-020
Type : E-Field Triangle
Serial No. : 266
Last Calib. Date : 08-Aug-2011
Frequency : 2450.00 MHz
Duty Cycle Factor: 1
Conversion Factor: 4.55
Probe Sensitivity: 1.20 1.20 1.20 $\mu V/(V/m)^2$
Compression Point: 95.00 mV
Offset : 1.56 mm

Measurement Data
Crest Factor : 1
Scan Type : Complete
Tissue Temp. : 22.00 °C
Ambient Temp. : 21.70 °C
Set-up Date : 14-May-2012
Set-up Time : 3:29:45 PM
Area Scan : 7x9x1 : Measurement x=10mm, y=10mm, z=4mm
Zoom Scan : 5x5x8 : Measurement x=8mm, y=8mm, z=4mm

Other Data
DUT Position : Touch
Separation : 5 mm
Channel : Mid



1 gram SAR value : 0.235 W/kg
10 gram SAR value : 0.091 W/kg
Area Scan Peak SAR : 0.293 W/kg
Zoom Scan Peak SAR : 0.480 W/kg

Data no.2 802.11b Worst data