



SAR & HAC Instruments for Wireless • Consulting • Research • Standards • Compliance • Training

Appendix A SAR Plots





SAR & HAC Instruments for Wireless • Consulting • Research • Standards • Compliance • Training

SAR Test Report

Operator : 123
 Validation Date : 11-Mar-2005
 Measurement Date : 11-Mar-2005
 Starting Time : 11-Mar-2005 11:09:58 AM
 End Time : 11-Mar-2005 11:20:05 AM
 Scanning Time : 607 secs

Product Data
 Device Name : Dell Blade II
 Serial No. : CN-0X0024-36521-3AG-00BD
 Type : Other
 Model : Standard
 Frequency : 2450.00 MHz
 Max. Transmit Pwr : 0.045 W
 Drift Time : 0 min(s)
 Length : 170
 Width : 160
 Depth : 30.4
 Antenna Type : Internal
 Power Start : 0.100
 Power Finish : 0.100
 Power Drift (%) : 0.000

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

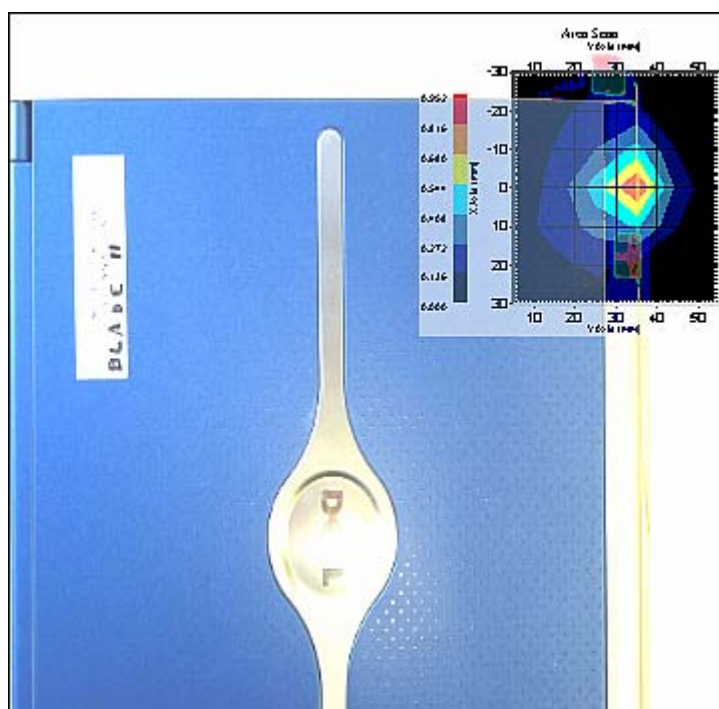
Tissue Data
 Type : BODY
 Serial No. : 2450
 Frequency : 2450 MHz
 Calibration Date : 11-Mar-2005
 Temperature : 22 °C
 Ambient Temp. : 23 °C
 Humidity : 50 RH%
 Epsilon : 54.96 F/m
 Sigma : 1.9 S/m
 Density : 1000 kg/cu. m

Probe Data
 Name : APREL Probe 212
 Model : E020
 Type : E-Field Triangle
 Serial No. : 212
 Calibration Date : 27-Dec-2004
 Frequency : 2450 MHz
 Duty Cycle Factor: 1
 Conversion Factor: 5
 Probe Sensitivity: 1.20 1.20 1.20 $\mu\text{V}/(\text{V}/\text{sq. m})$
 Compression Point: 95 mV
 Offset : 1.56



Measurement Data
 Crest Factor : 1
 Scan Type : Complete
 Set-up Date : 11-Mar-2005
 Set-up Time : 10:22:47 AM

Other Data
 DUT Position : Touch
 Separation : 0
 Channel : Mid - 2437



1 gram SAR value : 0.595 W/kg
 Zoom Scan Peak SAR : 1.461



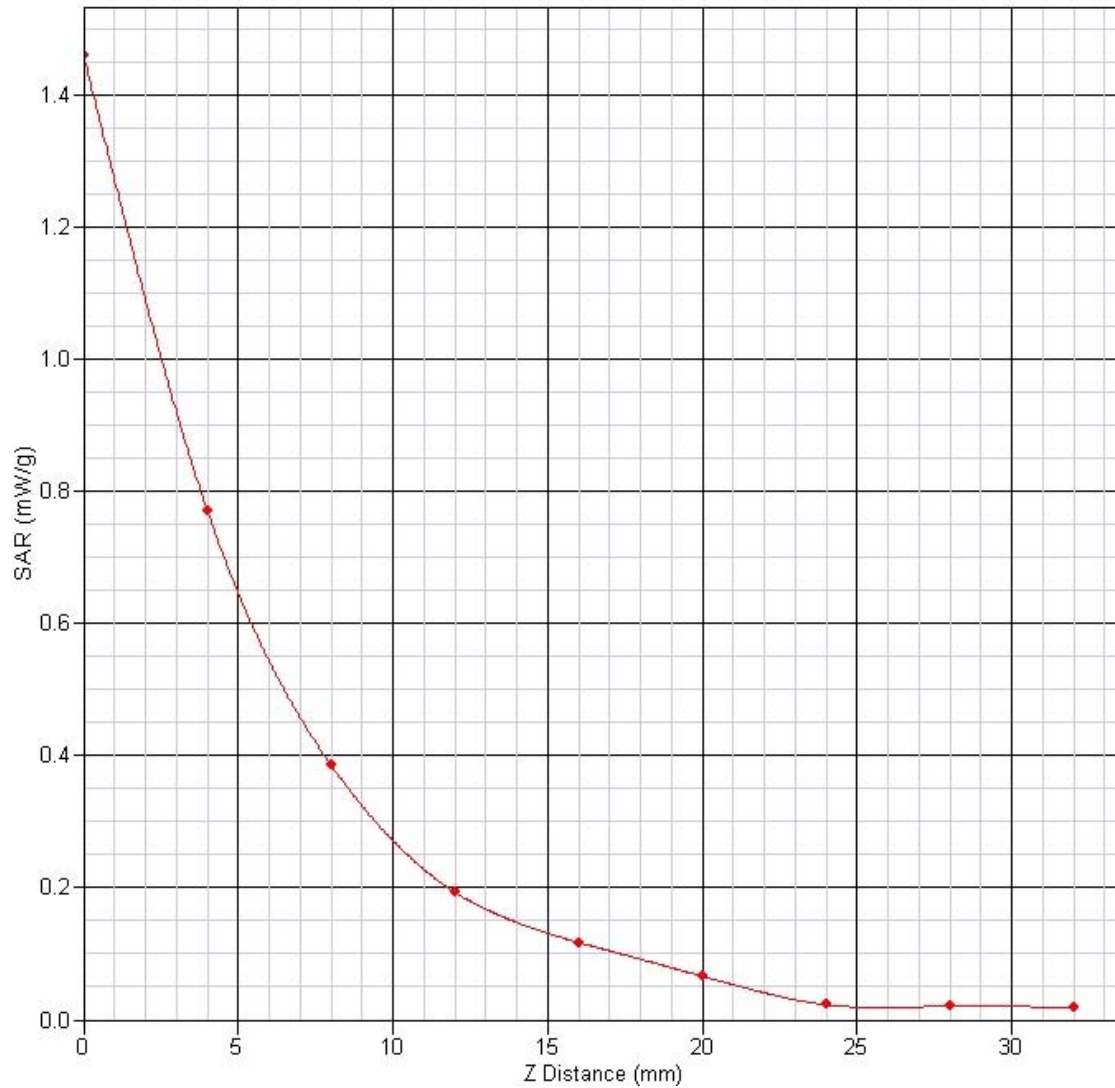
Exposure Assessment Measurement Uncertainty

Source of Uncertainty	Tolerance Value	Probability Distribution	Divisor	c_i^{-1} (1-g)	c_i^{-1} (10-g)	Standard Uncertainty (1-g)	Standard Uncertainty (10-g)
Measurement System							
Probe Calibration	3.5	normal	1	1	1	3.5	3.5
Axial Isotropy	3.7	rectangular	$\sqrt{3}$	$(1-cp)^{1/2}$	$(1-cp)^{1/2}$	1.5	1.5
Hemispherical Isotropy	10.9	rectangular	$\sqrt{3}$	$\sqrt{cp}$	$\sqrt{cp}$	4.4	4.4
Boundary Effect	1.0	rectangular	$\sqrt{3}$	1	1	0.6	0.6
Linearity	4.7	rectangular	$\sqrt{3}$	1	1	2.7	2.7
Detection Limit	1.0	rectangular	$\sqrt{3}$	1	1	0.6	0.6
Readout Electronics	1.0	normal	1	1	1	1.0	1.0
Response Time	0.8	rectangular	$\sqrt{3}$	1	1	0.5	0.5
Integration Time	1.7	rectangular	$\sqrt{3}$	1	1	1.0	1.0
RF Ambient Condition	3.0	rectangular	$\sqrt{3}$	1	1	1.7	1.7
Probe Positioner Mech.	0.4	rectangular	$\sqrt{3}$	1	1	0.2	0.2
Restriction							
Probe Positioning with respect to Phantom Shell	2.9	rectangular	$\sqrt{3}$	1	1	1.7	1.7
Extrapolation and Integration	3.7	rectangular	$\sqrt{3}$	1	1	2.1	2.1
Test Sample Positioning	4.0	normal	1	1	1	4.0	4.0
Device Holder Uncertainty	2.0	normal	1	1	1	2.0	2.0
Drift of Output Power	54.5	rectangular	$\sqrt{3}$	1	1	0.0	0.0
Phantom and Setup							
Phantom Uncertainty(shape & thickness tolerance)	3.4	rectangular	$\sqrt{3}$	1	1	2.0	2.0
Liquid Conductivity(target)	5.0	rectangular	$\sqrt{3}$	0.7	0.5	2.0	1.4
Liquid Conductivity(meas.)	0.2	rectangular	$\sqrt{3}$	0.7	0.5	0.1	0.1
Liquid Permittivity(target)	2.0	rectangular	$\sqrt{3}$	0.6	0.5	0.7	0.6
Liquid Permittivity(meas.)	5.5	rectangular	$\sqrt{3}$	0.6	0.5	1.9	1.6
Combined Uncertainty		RSS				9.3	9.1
Combined Uncertainty (coverage factor=2)		Normal (k=2)				18.6	18.2



SAR-Z Axis

at Hotspot x:0.2 y:34.9





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SAR Test Report

Operator : 123
 Validation Date : 11-Mar-2005
 Measurement Date : 11-Mar-2005
 Starting Time : 11-Mar-2005 11:53:01 AM
 End Time : 11-Mar-2005 12:03:21 PM
 Scanning Time : 620 secs

Product Data
 Device Name : Dell Blade II
 Serial No. : CN-0X0024-36521-3AG-00BD
 Type : Other
 Model : Standard
 Frequency : 2450.00 MHz
 Max. Transmit Pwr : 0.045 W
 Drift Time : 0 min(s)
 Length : 170
 Width : 160
 Depth : 30.4
 Antenna Type : Internal
 Power Start : 0.100
 Power Finish : 95.339
 Power Drift (%) : 05

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

Tissue Data
 Type : BODY
 Serial No. : 2450
 Frequency : 2450 MHz
 Calibration Date : 11-Mar-2005
 Temperature : 22 °C
 Ambient Temp. : 23 °C
 Humidity : 50 RH%
 Epsilon : 54.96 F/m
 Sigma : 1.9 S/m
 Density : 1000 kg/cu. m

Probe Data
 Name : APREL Probe 212
 Model : E020
 Type : E-Field Triangle
 Serial No. : 212
 Calibration Date : 27-Dec-2004
 Frequency : 2450 MHz
 Duty Cycle Factor : 1
 Conversion Factor : 5
 Probe Sensitivity : 1.20 1.20 1.20 $\mu\text{V}/(\text{V}/\text{sq. m})$
 Compression Point : 95 mV
 Offset : 1.56

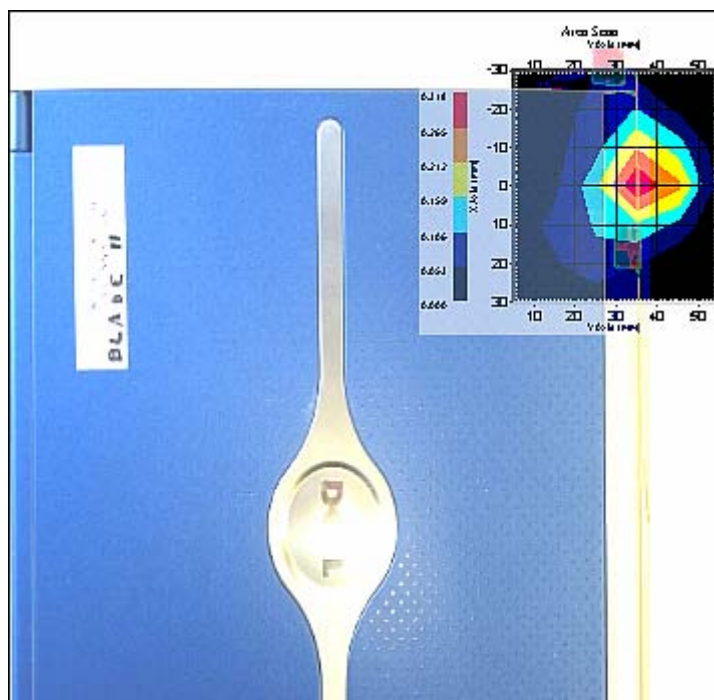


Measurement Data

Crest Factor : 1
 Scan Type : Complete
 Set-up Date : 11-Mar-2005
 Set-up Time : 10:22:47 AM

Other Data

DUT Position : Touch
 Separation : 0
 Channel : Mid - 2437



1 gram SAR value : 0.255 W/kg
 Zoom Scan Peak SAR : 0.560

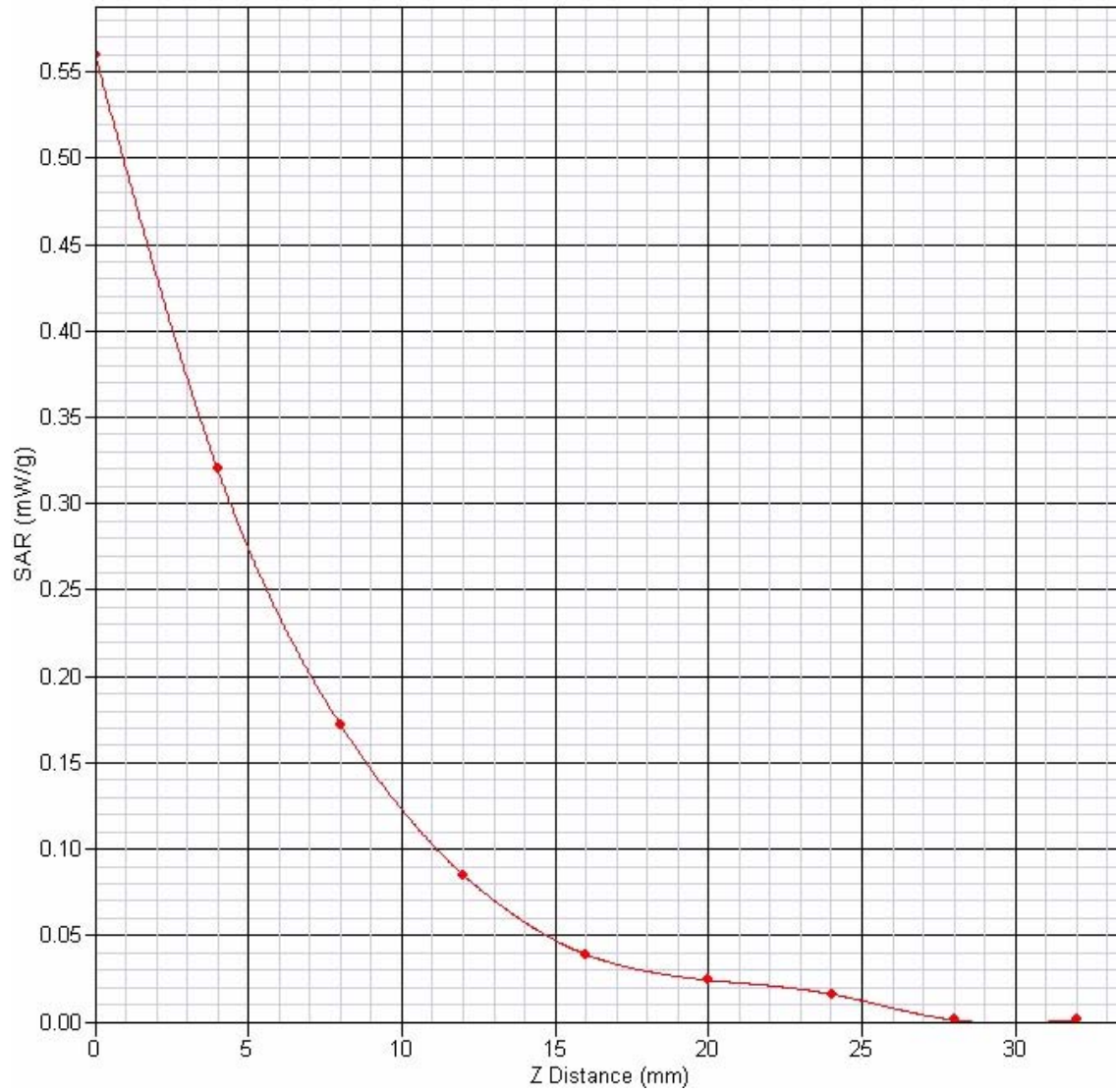


Exposure Assessment Measurement Uncertainty

Source of Uncertainty	Tolerance Value	Probability Distribution	Divisor	c_i^{-1} (1-g)	c_i^{-1} (10-g)	Standard Uncertainty (1-g)	Standard Uncertainty (10-g)
Measurement System							
Probe Calibration	3.5	normal	1	1	1	3.5	3.5
Axial Isotropy	3.7	rectangular	$\sqrt{3}$	$(1-cp)^{1/2}$	$(1-cp)^{1/2}$	1.5	1.5
Hemispherical Isotropy	10.9	rectangular	$\sqrt{3}$	$\sqrt{cp}$	$\sqrt{cp}$	4.4	4.4
Boundary Effect	1.0	rectangular	$\sqrt{3}$	1	1	0.6	0.6
Linearity	4.7	rectangular	$\sqrt{3}$	1	1	2.7	2.7
Detection Limit	1.0	rectangular	$\sqrt{3}$	1	1	0.6	0.6
Readout Electronics	1.0	normal	1	1	1	1.0	1.0
Response Time	0.8	rectangular	$\sqrt{3}$	1	1	0.5	0.5
Integration Time	1.7	rectangular	$\sqrt{3}$	1	1	1.0	1.0
RF Ambient Condition	3.0	rectangular	$\sqrt{3}$	1	1	1.7	1.7
Probe Positioner Mech.	0.4	rectangular	$\sqrt{3}$	1	1	0.2	0.2
Restriction							
Probe Positioning with respect to Phantom Shell	2.9	rectangular	$\sqrt{3}$	1	1	1.7	1.7
Extrapolation and Integration	3.7	rectangular	$\sqrt{3}$	1	1	2.1	2.1
Test Sample Positioning	4.0	normal	1	1	1	4.0	4.0
Device Holder Uncertainty	2.0	normal	1	1	1	2.0	2.0
Drift of Output Power	95.3	rectangular	$\sqrt{3}$	1	1	0.0	0.0
Phantom and Setup							
Phantom Uncertainty(shape & thickness tolerance)	3.4	rectangular	$\sqrt{3}$	1	1	2.0	2.0
Liquid Conductivity(target)	5.0	rectangular	$\sqrt{3}$	0.7	0.5	2.0	1.4
Liquid Conductivity(meas.)	0.2	rectangular	$\sqrt{3}$	0.7	0.5	0.1	0.1
Liquid Permittivity(target)	2.0	rectangular	$\sqrt{3}$	0.6	0.5	0.7	0.6
Liquid Permittivity(meas.)	5.5	rectangular	$\sqrt{3}$	0.6	0.5	1.9	1.6
Combined Uncertainty		RSS				9.3	9.1
Combined Uncertainty (coverage factor=2)		Normal (k=2)				18.6	18.2



SAR-Z Axis
at Hotspot x:0.2 y:34.8





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SAR Test Report

Operator : 123
 Validation Date : 10-Mar-2005
 Measurement Date : 10-Mar-2005
 Starting Time : 10-Mar-2005 12:22:40 PM
 End Time : 10-Mar-2005 12:32:57 PM
 Scanning Time : 617 secs

Product Data
 Device Name : Dell Blade II
 Serial No. : CN-0X0024-36521-3AG-00BD
 Type : Other
 Model : Standard
 Frequency : 2450.00 MHz
 Max. Transmit Pwr : 0.045 W
 Drift Time : 0 min(s)
 Length : 150
 Width : 160
 Depth : 30.4
 Antenna Type : Internal
 Power Start : 0.100
 Power Finish : 0.100
 Power Drift (%) : 0.00

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

Tissue Data
 Type : BODY
 Serial No. : 2450
 Frequency : 2450 MHz
 Calibration Date : 10-Mar-2005
 Temperature : 22 °C
 Ambient Temp. : 23 °C
 Humidity : 50 RH%
 Epsilon : 54.96 F/m
 Sigma : 1.9 S/m
 Density : 1000 kg/cu. m

Probe Data
 Name : APREL Probe 212
 Model : E020
 Type : E-Field Triangle
 Serial No. : 212
 Calibration Date : 27-Dec-2004
 Frequency : 2450 MHz
 Duty Cycle Factor: 1
 Conversion Factor: 5
 Probe Sensitivity: 1.20 1.20 1.20 $\mu\text{V}/(\text{V}/\text{sq. m})$
 Compression Point: 95 mV
 Offset : 1.56

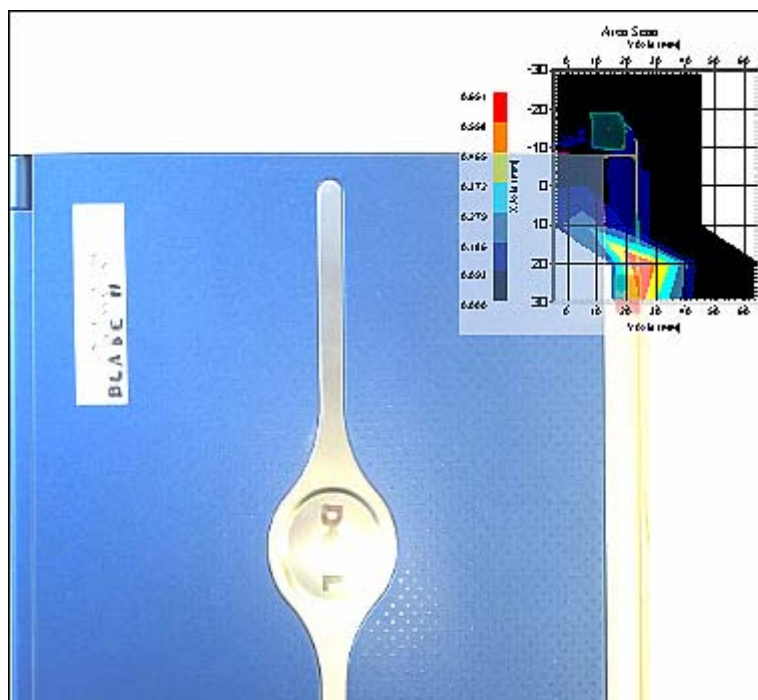


Measurement Data

Crest Factor : 1
 Scan Type : Complete
 Set-up Date : 09-Mar-2005
 Set-up Time : 4:00:52 PM

Other Data

DUT Position : Touch
 Separation : 0
 Channel : Low - 2412



1 gram SAR value : 0.437 W/kg
 Zoom Scan Peak SAR : 0.940



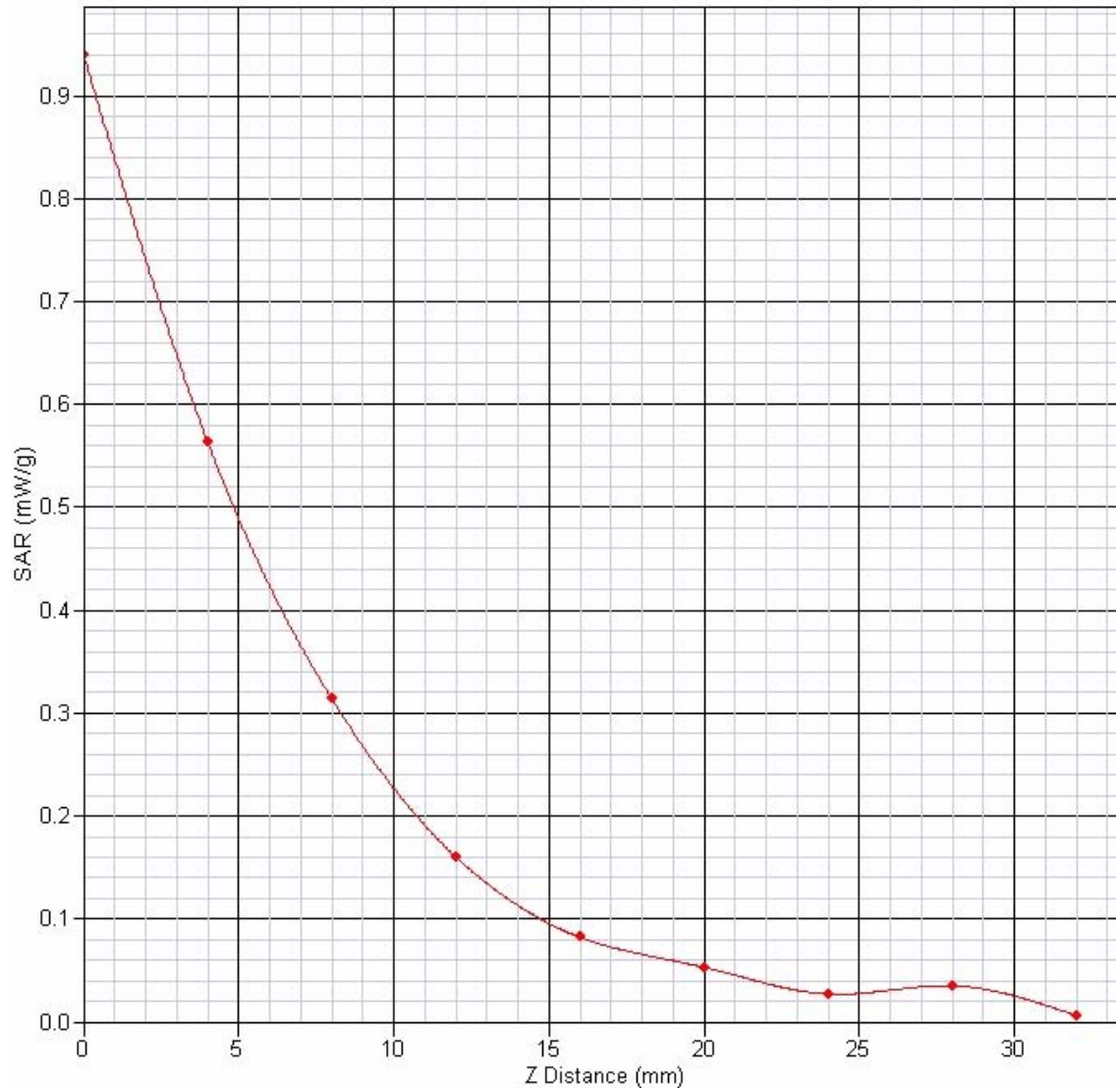
Exposure Assessment Measurement Uncertainty

Source of Uncertainty	Tolerance Value	Probability Distribution	Divisor	c_i^{-1} (1-g)	c_i^{-1} (10-g)	Standard Uncertainty (1-g)	Standard Uncertainty (10-g)
Measurement System							
Probe Calibration	3.5	normal	1	1	1	3.5	3.5
Axial Isotropy	3.7	rectangular	$\sqrt{3}$	$(1-cp)^{1/2}$	$(1-cp)^{1/2}$	1.5	1.5
Hemispherical Isotropy	10.9	rectangular	$\sqrt{3}$	$\sqrt{cp}$	$\sqrt{cp}$	4.4	4.4
Boundary Effect	1.0	rectangular	$\sqrt{3}$	1	1	0.6	0.6
Linearity	4.7	rectangular	$\sqrt{3}$	1	1	2.7	2.7
Detection Limit	1.0	rectangular	$\sqrt{3}$	1	1	0.6	0.6
Readout Electronics	1.0	normal	1	1	1	1.0	1.0
Response Time	0.8	rectangular	$\sqrt{3}$	1	1	0.5	0.5
Integration Time	1.7	rectangular	$\sqrt{3}$	1	1	1.0	1.0
RF Ambient Condition	3.0	rectangular	$\sqrt{3}$	1	1	1.7	1.7
Probe Positioner Mech.	0.4	rectangular	$\sqrt{3}$	1	1	0.2	0.2
Restriction							
Probe Positioning with respect to Phantom Shell	2.9	rectangular	$\sqrt{3}$	1	1	1.7	1.7
Extrapolation and Integration	3.7	rectangular	$\sqrt{3}$	1	1	2.1	2.1
Test Sample Positioning	4.0	normal	1	1	1	4.0	4.0
Device Holder Uncertainty	2.0	normal	1	1	1	2.0	2.0
Drift of Output Power	66.9	rectangular	$\sqrt{3}$	1	1	0.0	0.0
Phantom and Setup							
Phantom Uncertainty(shape & thickness tolerance)	3.4	rectangular	$\sqrt{3}$	1	1	2.0	2.0
Liquid Conductivity(target)	5.0	rectangular	$\sqrt{3}$	0.7	0.5	2.0	1.4
Liquid Conductivity(meas.)	0.2	rectangular	$\sqrt{3}$	0.7	0.5	0.1	0.1
Liquid Permittivity(target)	2.0	rectangular	$\sqrt{3}$	0.6	0.5	0.7	0.6
Liquid Permittivity(meas.)	5.5	rectangular	$\sqrt{3}$	0.6	0.5	1.9	1.6
Combined Uncertainty		RSS				9.3	9.1
Combined Uncertainty (coverage factor=2)		Normal (k=2)				18.6	18.2



SAR-Z Axis

at Hotspot x:28.3 y:24.9





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SAR Test Report

Operator : 123
 Validation Date : 10-Mar-2005
 Measurement Date : 10-Mar-2005
 Starting Time : 10-Mar-2005 02:18:06 PM
 End Time : 10-Mar-2005 02:28:09 PM
 Scanning Time : 603 secs

Product Data
 Device Name : Dell Blade II
 Serial No. : CN-0X0024-36521-3AG-00BD
 Type : Other
 Model : Standard
 Frequency : 2450.00 MHz
 Max. Transmit Pwr : 0.045 W
 Drift Time : 0 min(s)
 Length : 150
 Width : 160
 Depth : 30.4
 Antenna Type : Internal
 Power Start : 0.100
 Power Finish : 0.100
 Power Drift (%) : 0.00

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

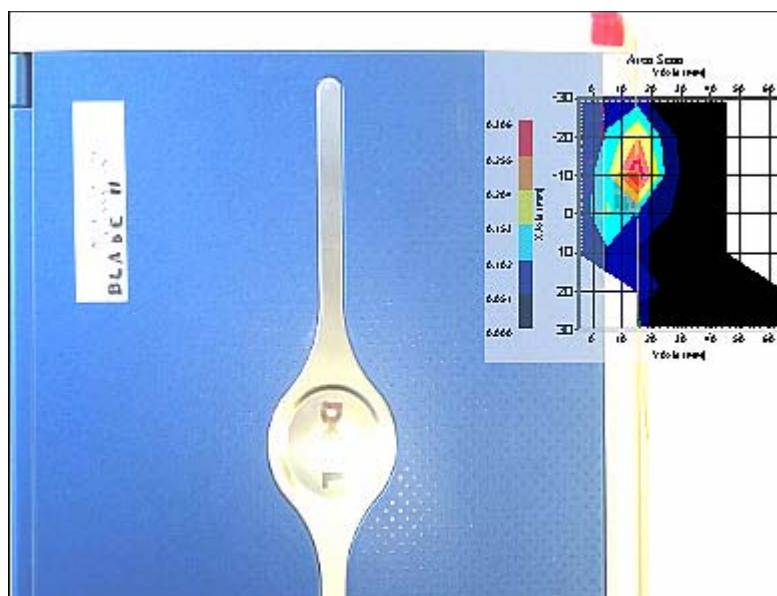
Tissue Data
 Type : BODY
 Serial No. : 2450
 Frequency : 2450 MHz
 Calibration Date : 10-Mar-2005
 Temperature : 22 °C
 Ambient Temp. : 23 °C
 Humidity : 50 RH%
 Epsilon : 54.96 F/m
 Sigma : 1.9 S/m
 Density : 1000 kg/cu. m

Probe Data
 Name : APREL Probe 212
 Model : E020
 Type : E-Field Triangle
 Serial No. : 212
 Calibration Date : 27-Dec-2004
 Frequency : 2450 MHz
 Duty Cycle Factor: 1
 Conversion Factor: 5
 Probe Sensitivity: 1.20 1.20 1.20 $\mu\text{V}/(\text{V}/\text{sq. m})$
 Compression Point: 95 mV
 Offset : 1.56



Measurement Data
 Crest Factor : 1
 Scan Type : Complete
 Set-up Date : 09-Mar-2005
 Set-up Time : 4:00:52 PM

Other Data
 DUT Position : Touch
 Separation : 0
 Channel : Low - 2412



1 gram SAR value : 0.220 W/kg
 Zoom Scan Peak SAR : 0.460

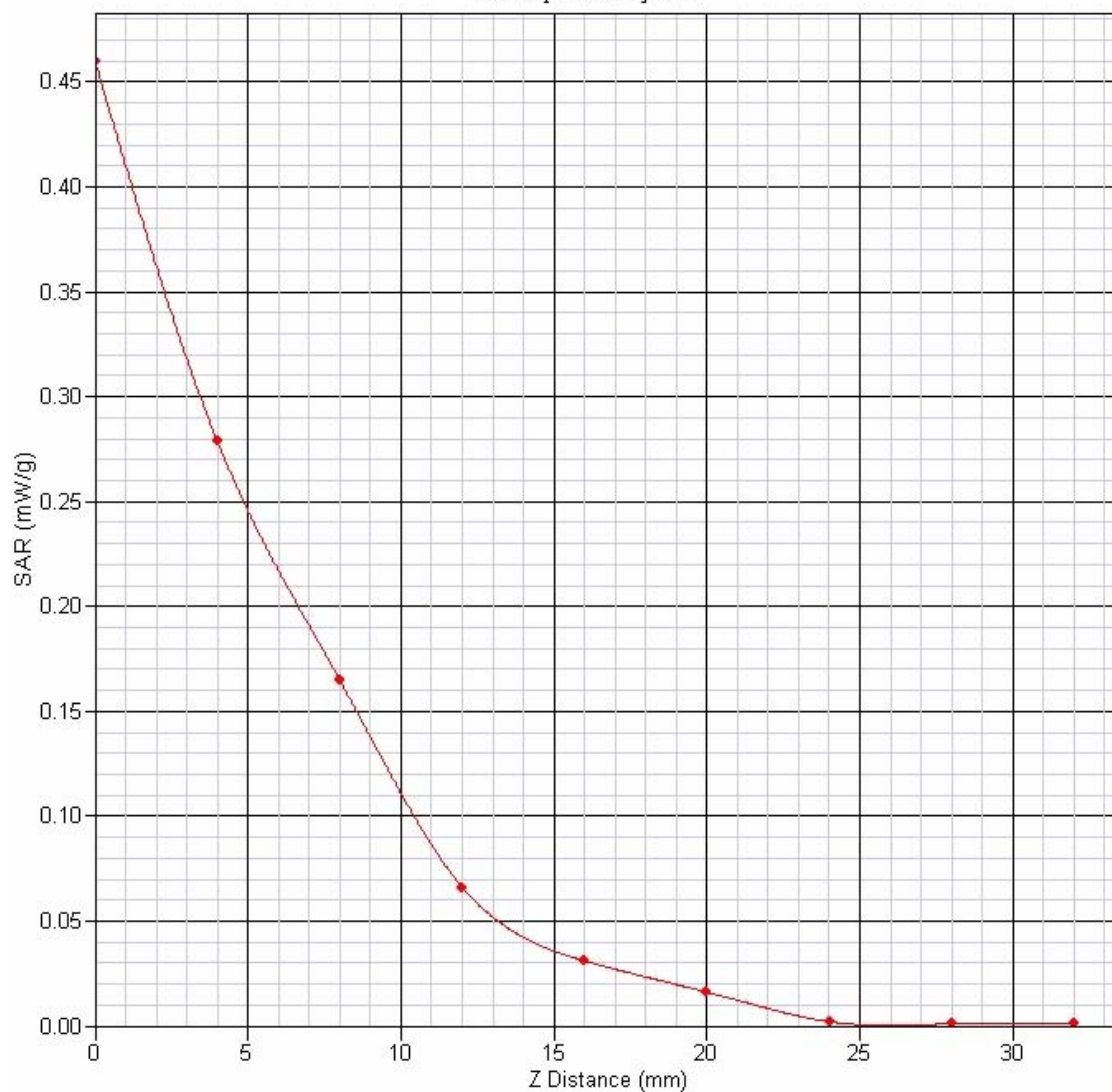


Exposure Assessment Measurement Uncertainty

Source of Uncertainty	Tolerance Value	Probability Distribution	Divisor	c_i^{-1} (1-g)	c_i^{-1} (10-g)	Standard Uncertainty (1-g)	Standard Uncertainty (10-g)
Measurement System							
Probe Calibration	3.5	normal	1	1	1	3.5	3.5
Axial Isotropy	3.7	rectangular	$\sqrt{3}$	$(1-cp)^{1/2}$	$(1-cp)^{1/2}$	1.5	1.5
Hemispherical Isotropy	10.9	rectangular	$\sqrt{3}$	$\sqrt{cp}$	$\sqrt{cp}$	4.4	4.4
Boundary Effect	1.0	rectangular	$\sqrt{3}$	1	1	0.6	0.6
Linearity	4.7	rectangular	$\sqrt{3}$	1	1	2.7	2.7
Detection Limit	1.0	rectangular	$\sqrt{3}$	1	1	0.6	0.6
Readout Electronics	1.0	normal	1	1	1	1.0	1.0
Response Time	0.8	rectangular	$\sqrt{3}$	1	1	0.5	0.5
Integration Time	1.7	rectangular	$\sqrt{3}$	1	1	1.0	1.0
RF Ambient Condition	3.0	rectangular	$\sqrt{3}$	1	1	1.7	1.7
Probe Positioner Mech.	0.4	rectangular	$\sqrt{3}$	1	1	0.2	0.2
Restriction							
Probe Positioning with respect to Phantom Shell	2.9	rectangular	$\sqrt{3}$	1	1	1.7	1.7
Extrapolation and Integration	3.7	rectangular	$\sqrt{3}$	1	1	2.1	2.1
Test Sample Positioning	4.0	normal	1	1	1	4.0	4.0
Device Holder Uncertainty	2.0	normal	1	1	1	2.0	2.0
Drift of Output Power	85.2	rectangular	$\sqrt{3}$	1	1	0.0	0.0
Phantom and Setup							
Phantom Uncertainty(shape & thickness tolerance)	3.4	rectangular	$\sqrt{3}$	1	1	2.0	2.0
Liquid Conductivity(target)	5.0	rectangular	$\sqrt{3}$	0.7	0.5	2.0	1.4
Liquid Conductivity(meas.)	0.2	rectangular	$\sqrt{3}$	0.7	0.5	0.1	0.1
Liquid Permittivity(target)	2.0	rectangular	$\sqrt{3}$	0.6	0.5	0.7	0.6
Liquid Permittivity(meas.)	5.5	rectangular	$\sqrt{3}$	0.6	0.5	1.9	1.6
Combined Uncertainty		RSS				9.3	9.1
Combined Uncertainty (coverage factor=2)		Normal (k=2)				18.6	18.2



SAR-Z Axis
at Hotspot x:-9.7 y:34.9





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SAR Test Report

Operator : 123
 Validation Date : 11-Mar-2005
 Measurement Date : 11-Mar-2005
 Starting Time : 11-Mar-2005 10:24:45 AM
 End Time : 11-Mar-2005 10:35:00 AM
 Scanning Time : 615 secs

Product Data
 Device Name : Dell Blade II
 Serial No. : CN-0X0024-36521-3AG-00BD
 Type : Other
 Model : Standard
 Frequency : 2450.00 MHz
 Max. Transmit Pwr : 0.045 W
 Drift Time : 0 min(s)
 Length : 170
 Width : 160
 Depth : 30.4
 Antenna Type : Internal
 Power Start : 0.100
 Power Finish : 0.100
 Power Drift (%) : 0.00

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

Tissue Data
 Type : BODY
 Serial No. : 2450
 Frequency : 2450 MHz
 Calibration Date : 11-Mar-2005
 Temperature : 22 °C
 Ambient Temp. : 23 °C
 Humidity : 50 RH%
 Epsilon : 54.96 F/m
 Sigma : 1.9 S/m
 Density : 1000 kg/cu. m

Probe Data
 Name : APREL Probe 212
 Model : E020
 Type : E-Field Triangle
 Serial No. : 212
 Calibration Date : 27-Dec-2004
 Frequency : 2450 MHz
 Duty Cycle Factor: 1
 Conversion Factor: 5
 Probe Sensitivity: 1.20 1.20 1.20 $\mu\text{V}/(\text{V}/\text{sq. m})$
 Compression Point: 95 mV
 Offset : 1.56

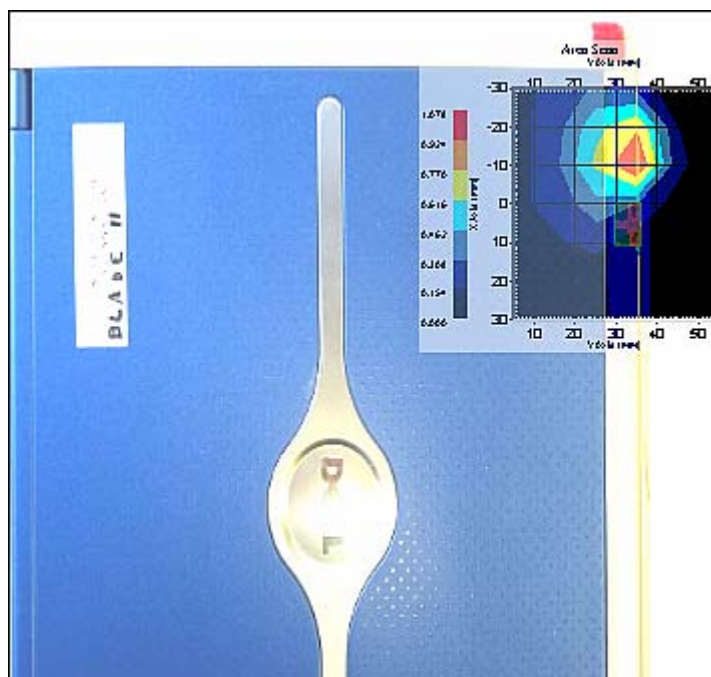


Measurement Data

Crest Factor : 1
 Scan Type : Complete
 Set-up Date : 11-Mar-2005
 Set-up Time : 10:22:47 AM

Other Data

DUT Position : Touch
 Separation : 0
 Channel : High - 2462



1 gram SAR value : 0.577 W/kg
 Zoom Scan Peak SAR : 1.211



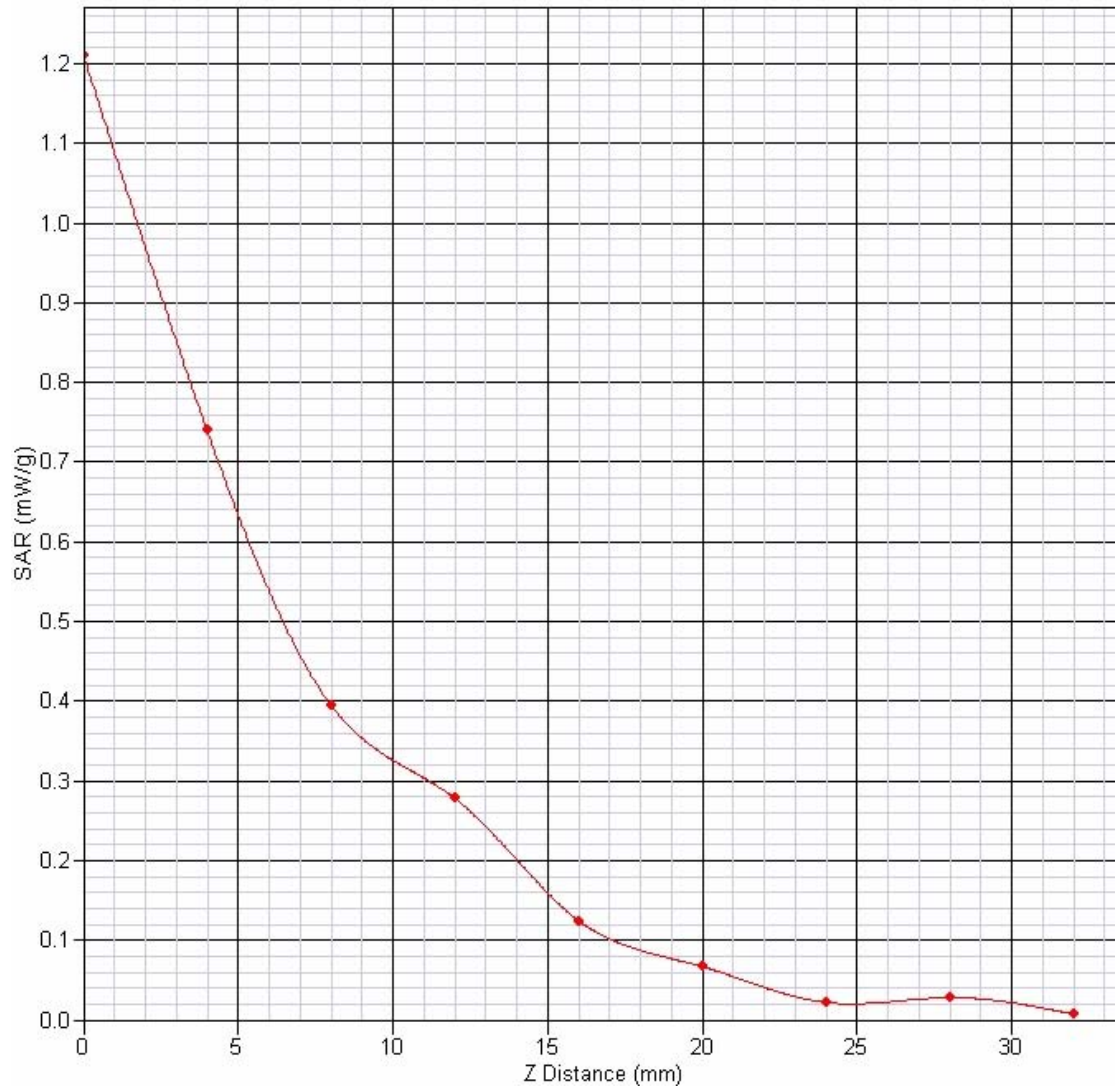
Exposure Assessment Measurement Uncertainty

Source of Uncertainty	Tolerance Value	Probability Distribution	Divisor	c_i^{-1} (1-g)	c_i^{-1} (10-g)	Standard Uncertainty (1-g)	Standard Uncertainty (10-g)
Measurement System							
Probe Calibration	3.5	normal	1	1	1	3.5	3.5
Axial Isotropy	3.7	rectangular	$\sqrt{3}$	$(1-cp)^{1/2}$	$(1-cp)^{1/2}$	1.5	1.5
Hemispherical Isotropy	10.9	rectangular	$\sqrt{3}$	$\sqrt{cp}$	$\sqrt{cp}$	4.4	4.4
Boundary Effect	1.0	rectangular	$\sqrt{3}$	1	1	0.6	0.6
Linearity	4.7	rectangular	$\sqrt{3}$	1	1	2.7	2.7
Detection Limit	1.0	rectangular	$\sqrt{3}$	1	1	0.6	0.6
Readout Electronics	1.0	normal	1	1	1	1.0	1.0
Response Time	0.8	rectangular	$\sqrt{3}$	1	1	0.5	0.5
Integration Time	1.7	rectangular	$\sqrt{3}$	1	1	1.0	1.0
RF Ambient Condition	3.0	rectangular	$\sqrt{3}$	1	1	1.7	1.7
Probe Positioner Mech.	0.4	rectangular	$\sqrt{3}$	1	1	0.2	0.2
Restriction							
Probe Positioning with respect to Phantom Shell	2.9	rectangular	$\sqrt{3}$	1	1	1.7	1.7
Extrapolation and Integration	3.7	rectangular	$\sqrt{3}$	1	1	2.1	2.1
Test Sample Positioning	4.0	normal	1	1	1	4.0	4.0
Device Holder Uncertainty	2.0	normal	1	1	1	2.0	2.0
Drift of Output Power	56.3	rectangular	$\sqrt{3}$	1	1	0.0	0.0
Phantom and Setup							
Phantom Uncertainty(shape & thickness tolerance)	3.4	rectangular	$\sqrt{3}$	1	1	2.0	2.0
Liquid Conductivity(target)	5.0	rectangular	$\sqrt{3}$	0.7	0.5	2.0	1.4
Liquid Conductivity(meas.)	0.2	rectangular	$\sqrt{3}$	0.7	0.5	0.1	0.1
Liquid Permittivity(target)	2.0	rectangular	$\sqrt{3}$	0.6	0.5	0.7	0.6
Liquid Permittivity(meas.)	5.5	rectangular	$\sqrt{3}$	0.6	0.5	1.9	1.6
Combined Uncertainty		RSS				9.3	9.1
Combined Uncertainty (coverage factor=2)		Normal (k=2)				18.6	18.2



SAR-Z Axis

at Hotspot x:-9.8 y:34.9





SAR & HAC Instruments for Wireless • Consulting • Research • Standards • Compliance • Training

SAR Test Report

Operator : 123
 Validation Date : 11-Mar-2005
 Measurement Date : 11-Mar-2005
 Starting Time : 11-Mar-2005 11:36:53 AM
 End Time : 11-Mar-2005 11:47:01 AM
 Scanning Time : 608 secs

Product Data
 Device Name : Dell Blade II
 Serial No. : CN-0X0024-36521-3AG-00BD
 Type : Other
 Model : Standard
 Frequency : 2450.00 MHz
 Max. Transmit Pwr : 0.045 W
 Drift Time : 0 min(s)
 Length : 170
 Width : 160
 Depth : 30.4
 Antenna Type : Internal
 Power Start : 0.100
 Power Finish : 97.994
 Power Drift (%) : 2.0

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

Tissue Data
 Type : BODY
 Serial No. : 2450
 Frequency : 2450 MHz
 Calibration Date : 11-Mar-2005
 Temperature : 22 °C
 Ambient Temp. : 23 °C
 Humidity : 50 RH%
 Epsilon : 54.96 F/m
 Sigma : 1.9 S/m
 Density : 1000 kg/cu. m

Probe Data
 Name : APREL Probe 212
 Model : E020
 Type : E-Field Triangle
 Serial No. : 212
 Calibration Date : 27-Dec-2004
 Frequency : 2450 MHz
 Duty Cycle Factor: 1
 Conversion Factor: 5
 Probe Sensitivity: 1.20 1.20 1.20 $\mu\text{V}/(\text{V}/\text{sq. m})$
 Compression Point: 95 mV
 Offset : 1.56

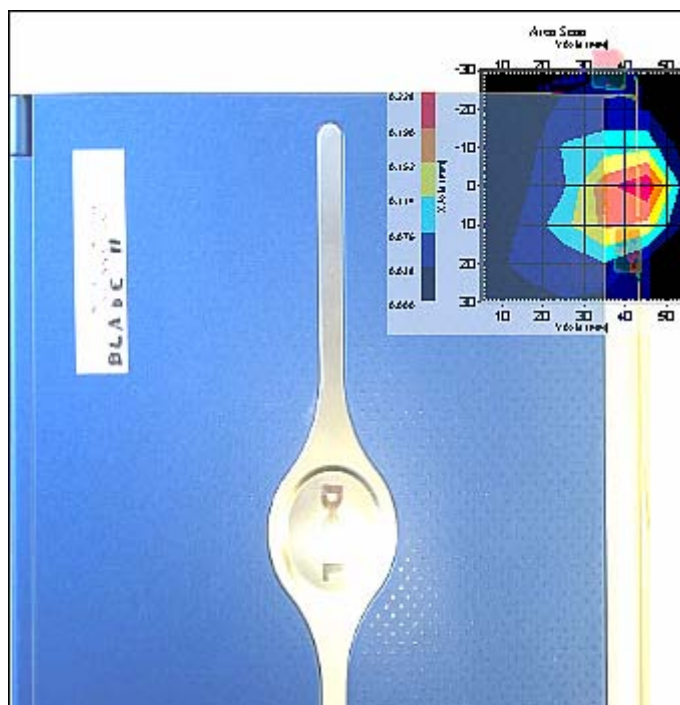


Measurement Data

Crest Factor : 1
 Scan Type : Complete
 Set-up Date : 11-Mar-2005
 Set-up Time : 10:22:47 AM

Other Data

DUT Position : Touch
 Separation : 0
 Channel : High - 2462



1 gram SAR value : 0.172 W/kg
 Zoom Scan Peak SAR : 0.340



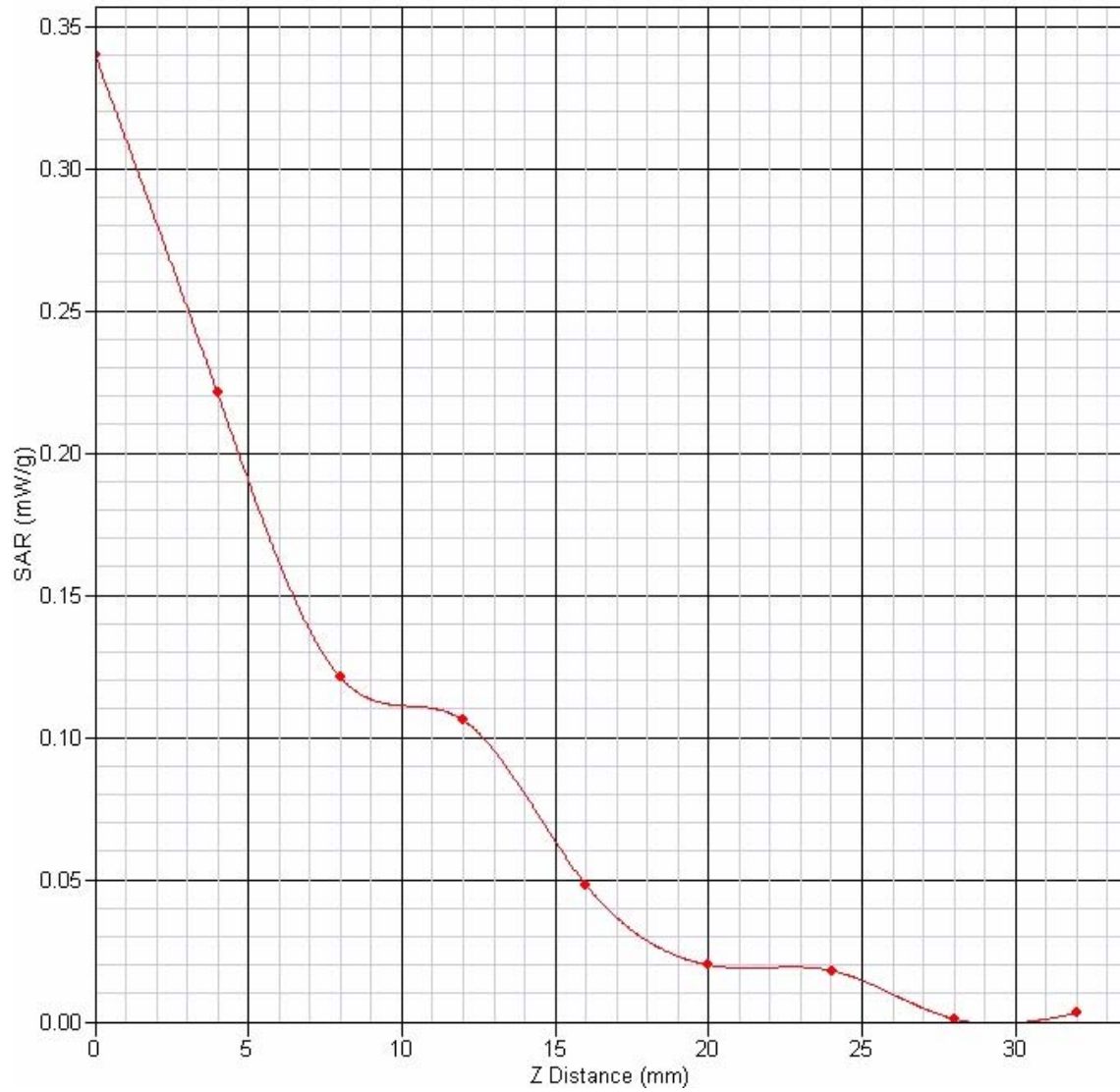
Exposure Assessment Measurement Uncertainty

Source of Uncertainty	Tolerance Value	Probability Distribution	Divisor	c_i^{-1} (1-g)	c_i^{-1} (10-g)	Standard Uncertainty (1-g)	Standard Uncertainty (10-g)
Measurement System							
Probe Calibration	3.5	normal	1	1	1	3.5	3.5
Axial Isotropy	3.7	rectangular	$\sqrt{3}$	$(1-cp)^{1/2}$	$(1-cp)^{1/2}$	1.5	1.5
Hemispherical Isotropy	10.9	rectangular	$\sqrt{3}$	$\sqrt{cp}$	$\sqrt{cp}$	4.4	4.4
Boundary Effect	1.0	rectangular	$\sqrt{3}$	1	1	0.6	0.6
Linearity	4.7	rectangular	$\sqrt{3}$	1	1	2.7	2.7
Detection Limit	1.0	rectangular	$\sqrt{3}$	1	1	0.6	0.6
Readout Electronics	1.0	normal	1	1	1	1.0	1.0
Response Time	0.8	rectangular	$\sqrt{3}$	1	1	0.5	0.5
Integration Time	1.7	rectangular	$\sqrt{3}$	1	1	1.0	1.0
RF Ambient Condition	3.0	rectangular	$\sqrt{3}$	1	1	1.7	1.7
Probe Positioner Mech.	0.4	rectangular	$\sqrt{3}$	1	1	0.2	0.2
Restriction							
Probe Positioning with respect to Phantom Shell	2.9	rectangular	$\sqrt{3}$	1	1	1.7	1.7
Extrapolation and Integration	3.7	rectangular	$\sqrt{3}$	1	1	2.1	2.1
Test Sample Positioning	4.0	normal	1	1	1	4.0	4.0
Device Holder Uncertainty	2.0	normal	1	1	1	2.0	2.0
Drift of Output Power	98.0	rectangular	$\sqrt{3}$	1	1	0.0	0.0
Phantom and Setup							
Phantom Uncertainty(shape & thickness tolerance)	3.4	rectangular	$\sqrt{3}$	1	1	2.0	2.0
Liquid Conductivity(target)	5.0	rectangular	$\sqrt{3}$	0.7	0.5	2.0	1.4
Liquid Conductivity(meas.)	0.2	rectangular	$\sqrt{3}$	0.7	0.5	0.1	0.1
Liquid Permittivity(target)	2.0	rectangular	$\sqrt{3}$	0.6	0.5	0.7	0.6
Liquid Permittivity(meas.)	5.5	rectangular	$\sqrt{3}$	0.6	0.5	1.9	1.6
Combined Uncertainty		RSS				9.3	9.1
Combined Uncertainty (coverage factor=2)		Normal (k=2)				18.6	18.2



SAR-Z Axis

at Hotspot x:0.2 y:36.8





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SAR Test Report

Operator : 123
 Validation Date : 11-Mar-2005
 Measurement Date : 11-Mar-2005
 Starting Time : 11-Mar-2005 04:13:40 PM
 End Time : 11-Mar-2005 04:23:58 PM
 Scanning Time : 618 secs

Product Data
 Device Name : Dell Blade II
 Serial No. : CN-0X0024-36521-3AG-00BD
 Type : Other
 Model : Standard
 Frequency : 2450.00 MHz
 Max. Transmit Pwr : 0.045 W
 Drift Time : 0 min(s)
 Length : 150
 Width : 160
 Depth : 30.4
 Antenna Type : Internal
 Power Start : 0.043
 Power Finish : 0.043
 Power Drift (%) : 0.00

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

Tissue Data
 Type : BODY
 Serial No. : 2450
 Frequency : 2450 MHz
 Calibration Date : 11-Mar-2005
 Temperature : 22 °C
 Ambient Temp. : 23 °C
 Humidity : 50 RH%
 Epsilon : 54.96 F/m
 Sigma : 1.9 S/m
 Density : 1000 kg/cu. m

Probe Data
 Name : APREL Probe 212
 Model : E020
 Type : E-Field Triangle
 Serial No. : 212
 Calibration Date : 27-Dec-2004
 Frequency : 2450 MHz
 Duty Cycle Factor: 1
 Conversion Factor: 5
 Probe Sensitivity: 1.20 1.20 1.20 $\mu\text{V}/(\text{V}/\text{sq. m})$
 Compression Point: 95 mV
 Offset : 1.56

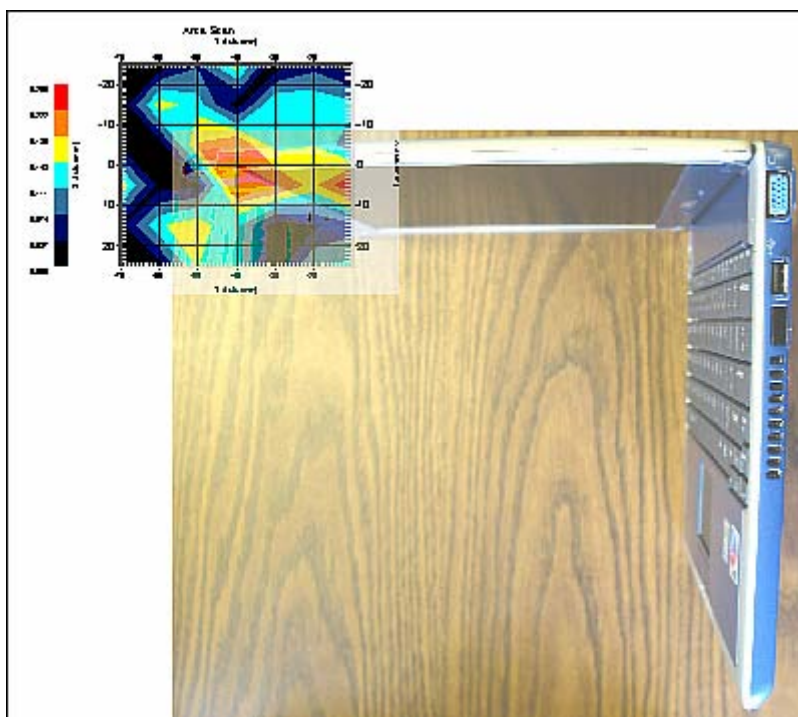


Measurement Data

Crest Factor : 1
 Scan Type : Complete
 Set-up Date : 11-Mar-2005
 Set-up Time : 4:43:07 PM

Other Data

DUT Position : Touch
 Separation : 0
 Channel : Mid - 2437



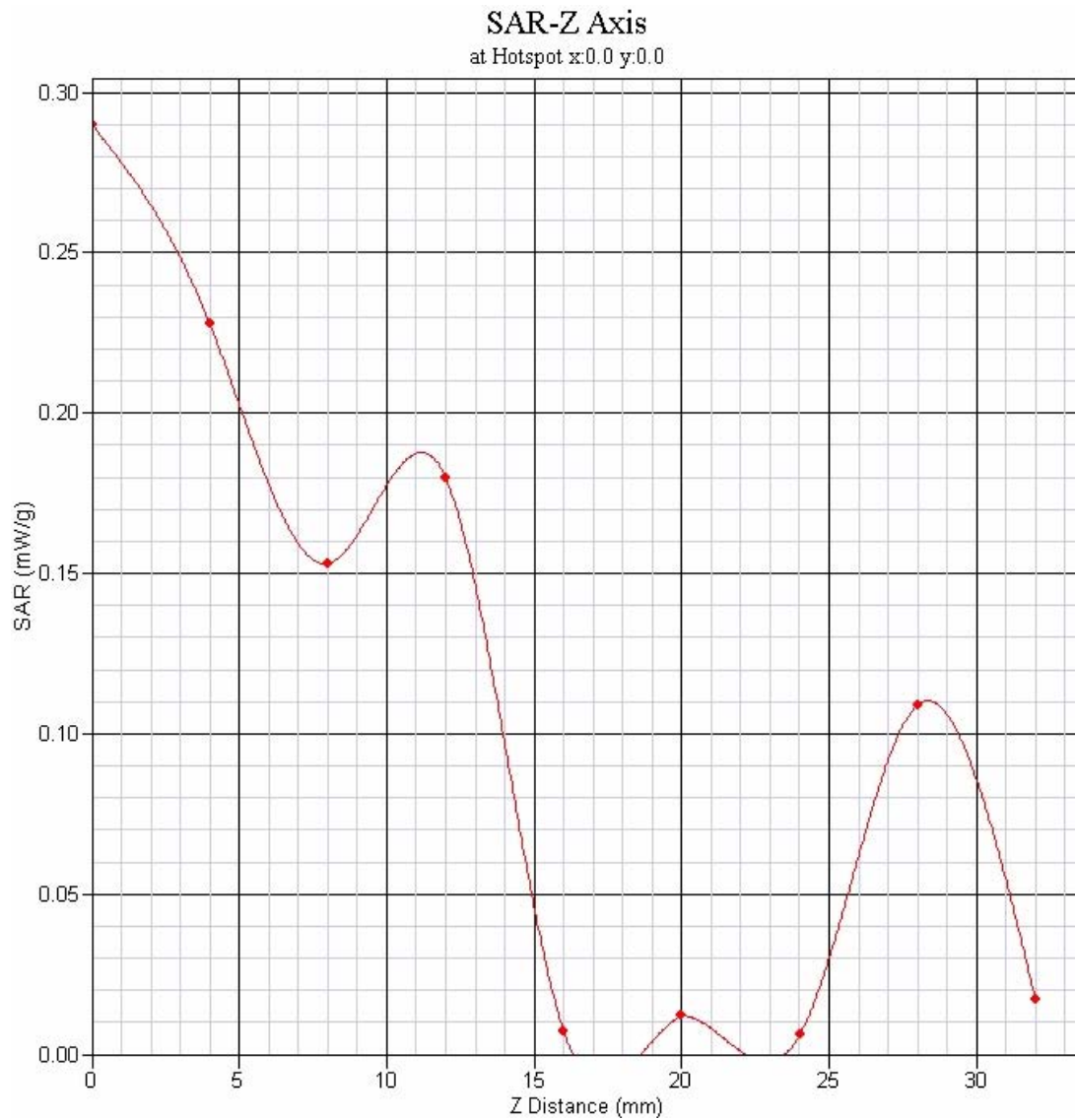
1 gram SAR value : 0.172 W/kg
 Zoom Scan Peak SAR : 0.290



Exposure Assessment Measurement Uncertainty

Source of Uncertainty	Tolerance Value	Probability Distribution	Divisor	c_i^{-1} (1-g)	c_i^{-1} (10-g)	Standard Uncertainty (1-g)	Standard Uncertainty (10-g)
Measurement System							
Probe Calibration	3.5	normal	1	1	1	3.5	3.5
Axial Isotropy	3.7	rectangular	$\sqrt{3}$	$(1-cp)^{1/2}$	$(1-cp)^{1/2}$	1.5	1.5
Hemispherical Isotropy	10.9	rectangular	$\sqrt{3}$	$\sqrt{cp}$	$\sqrt{cp}$	4.4	4.4
Boundary Effect	1.0	rectangular	$\sqrt{3}$	1	1	0.6	0.6
Linearity	4.7	rectangular	$\sqrt{3}$	1	1	2.7	2.7
Detection Limit	1.0	rectangular	$\sqrt{3}$	1	1	0.6	0.6
Readout Electronics	1.0	normal	1	1	1	1.0	1.0
Response Time	0.8	rectangular	$\sqrt{3}$	1	1	0.5	0.5
Integration Time	1.7	rectangular	$\sqrt{3}$	1	1	1.0	1.0
RF Ambient Condition	3.0	rectangular	$\sqrt{3}$	1	1	1.7	1.7
Probe Positioner Mech.	0.4	rectangular	$\sqrt{3}$	1	1	0.2	0.2
Restriction							
Probe Positioning with respect to Phantom Shell	2.9	rectangular	$\sqrt{3}$	1	1	1.7	1.7
Extrapolation and Integration	3.7	rectangular	$\sqrt{3}$	1	1	2.1	2.1
Test Sample Positioning	4.0	normal	1	1	1	4.0	4.0
Device Holder Uncertainty	2.0	normal	1	1	1	2.0	2.0
Drift of Output Power	142.8	rectangular	$\sqrt{3}$	1	1	0.0	0.0
Phantom and Setup							
Phantom Uncertainty(shape & thickness tolerance)	3.4	rectangular	$\sqrt{3}$	1	1	2.0	2.0
Liquid Conductivity(target)	5.0	rectangular	$\sqrt{3}$	0.7	0.5	2.0	1.4
Liquid Conductivity(meas.)	0.2	rectangular	$\sqrt{3}$	0.7	0.5	0.1	0.1
Liquid Permittivity(target)	2.0	rectangular	$\sqrt{3}$	0.6	0.5	0.7	0.6
Liquid Permittivity(meas.)	5.5	rectangular	$\sqrt{3}$	0.6	0.5	1.9	1.6
Combined Uncertainty		RSS				9.3	9.1
Combined Uncertainty (coverage factor=2)		Normal (k=2)				18.6	18.2







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SAR Test Report

Operator : 123
 Validation Date : 11-Mar-2005
 Measurement Date : 11-Mar-2005
 Starting Time : 11-Mar-2005 03:30:55 PM
 End Time : 11-Mar-2005 03:41:03 PM
 Scanning Time : 608 secs

Product Data
 Device Name : Dell Blade II
 Serial No. : CN-0X0024-36521-3AG-00BD
 Type : Other
 Model : Standard
 Frequency : 2450.00 MHz
 Max. Transmit Pwr : 0.045 W
 Drift Time : 0 min(s)
 Length : 150
 Width : 160
 Depth : 30.4
 Antenna Type : Internal
 Power Start : 0.043
 Power Finish : 0.043
 Power Drift (%) : 0.00

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

Tissue Data
 Type : BODY
 Serial No. : 2450
 Frequency : 2450 MHz
 Calibration Date : 11-Mar-2005
 Temperature : 22 °C
 Ambient Temp. : 23 °C
 Humidity : 50 RH%
 Epsilon : 54.96 F/m
 Sigma : 1.9 S/m
 Density : 1000 kg/cu. m

Probe Data
 Name : APREL Probe 212
 Model : E020
 Type : E-Field Triangle
 Serial No. : 212
 Calibration Date : 27-Dec-2004
 Frequency : 2450 MHz
 Duty Cycle Factor : 1
 Conversion Factor : 5
 Probe Sensitivity : 1.20 1.20 1.20 $\mu\text{V}/(\text{V}/\text{sq. m})$
 Compression Point : 95 mV
 Offset : 1.56

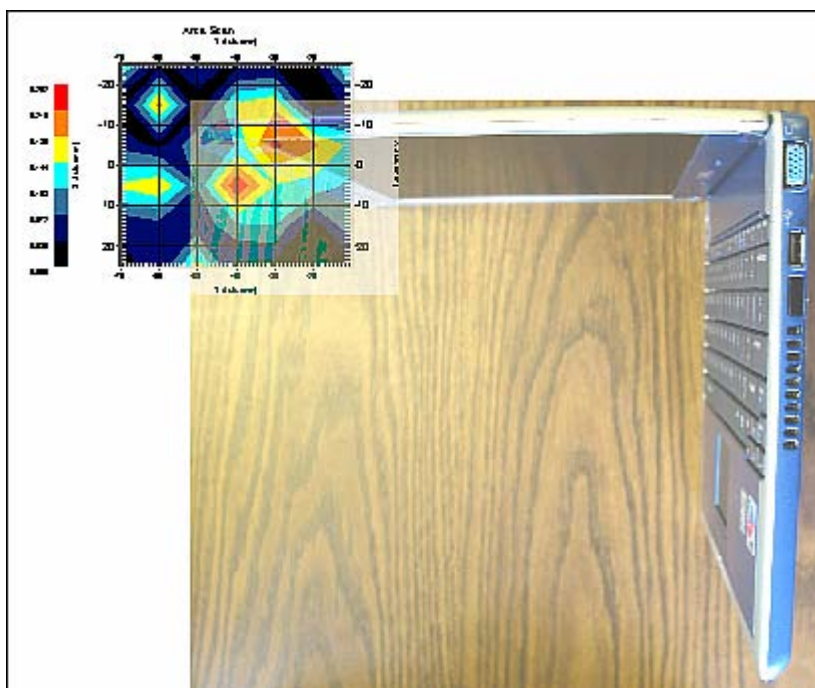


Measurement Data

Crest Factor : 1
 Scan Type : Complete
 Set-up Date : 09-Mar-2005
 Set-up Time : 4:00:52 PM

Other Data

DUT Position : Touch
 Separation : 0
 Channel : Mid - 2437



1 gram SAR value : 0.141 W/kg
 Zoom Scan Peak SAR : 0.520



Exposure Assessment Measurement Uncertainty

Source of Uncertainty	Tolerance Value	Probability Distribution	Divisor	c_i^{-1} (1-g)	c_i^{-1} (10-g)	Standard Uncertainty (1-g)	Standard Uncertainty (10-g)
Measurement System							
Probe Calibration	3.5	normal	1	1	1	3.5	3.5
Axial Isotropy	3.7	rectangular	$\sqrt{3}$	$(1-cp)^{1/2}$	$(1-cp)^{1/2}$	1.5	1.5
Hemispherical Isotropy	10.9	rectangular	$\sqrt{3}$	$\sqrt{cp}$	$\sqrt{cp}$	4.4	4.4
Boundary Effect	1.0	rectangular	$\sqrt{3}$	1	1	0.6	0.6
Linearity	4.7	rectangular	$\sqrt{3}$	1	1	2.7	2.7
Detection Limit	1.0	rectangular	$\sqrt{3}$	1	1	0.6	0.6
Readout Electronics	1.0	normal	1	1	1	1.0	1.0
Response Time	0.8	rectangular	$\sqrt{3}$	1	1	0.5	0.5
Integration Time	1.7	rectangular	$\sqrt{3}$	1	1	1.0	1.0
RF Ambient Condition	3.0	rectangular	$\sqrt{3}$	1	1	1.7	1.7
Probe Positioner Mech.	0.4	rectangular	$\sqrt{3}$	1	1	0.2	0.2
Restriction							
Probe Positioning with respect to Phantom Shell	2.9	rectangular	$\sqrt{3}$	1	1	1.7	1.7
Extrapolation and Integration	3.7	rectangular	$\sqrt{3}$	1	1	2.1	2.1
Test Sample Positioning	4.0	normal	1	1	1	4.0	4.0
Device Holder Uncertainty	2.0	normal	1	1	1	2.0	2.0
Drift of Output Power	31.5	rectangular	$\sqrt{3}$	1	1	0.0	0.0
Phantom and Setup							
Phantom Uncertainty(shape & thickness tolerance)	3.4	rectangular	$\sqrt{3}$	1	1	2.0	2.0
Liquid Conductivity(target)	5.0	rectangular	$\sqrt{3}$	0.7	0.5	2.0	1.4
Liquid Conductivity(meas.)	0.2	rectangular	$\sqrt{3}$	0.7	0.5	0.1	0.1
Liquid Permittivity(target)	2.0	rectangular	$\sqrt{3}$	0.6	0.5	0.7	0.6
Liquid Permittivity(meas.)	5.5	rectangular	$\sqrt{3}$	0.6	0.5	1.9	1.6
Combined Uncertainty		RSS				9.3	9.1
Combined Uncertainty (coverage factor=2)		Normal (k=2)				18.6	18.2



SAR-Z Axis

at Hotspot x:5.2 y:-23.9

