



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

Probe Data

Name : APREL
 Model : E-020
 Type : E-Field Triangle
 Serial No. : 225
 Last Calib. Date : 03-May-2007
 Frequency : 2450.00 MHz
 Duty Cycle Factor: 1
 Conversion Factor: 4.01
 Probe Sensitivity: 1.20 1.20 1.20 $\mu\text{V}/(\text{V}/\text{m})^2$
 Compression Point: 95.00 mV
 Offset : 1.56 mm

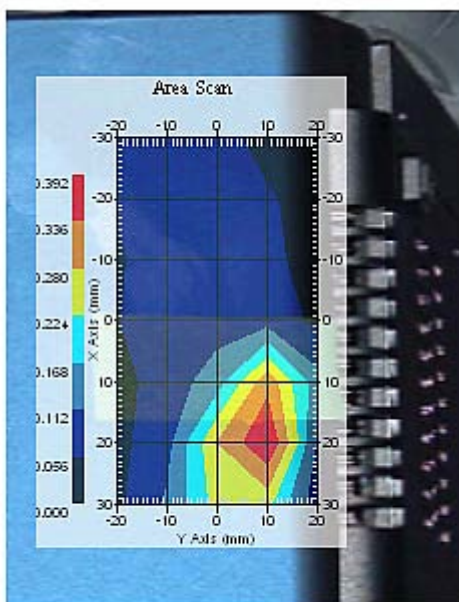
Measurement Data

Crest Factor : 1
 Scan Type : Complete
 Tissue Temp. : 20.00 °C
 Ambient Temp. : 21.00 °C
 Set-up Date : 25-Aug-2008
 Set-up Time : 11:32:21 AM
 Area Scan : 7x5x1 : Measurement x=10mm, y=10mm, z=4mm
 Zoom Scan : 5x5x8 : Measurement x=8mm, y=8mm, z=4mm

Other Data

DUT Position : Touch
 Separation : 0
 Channel : Mid





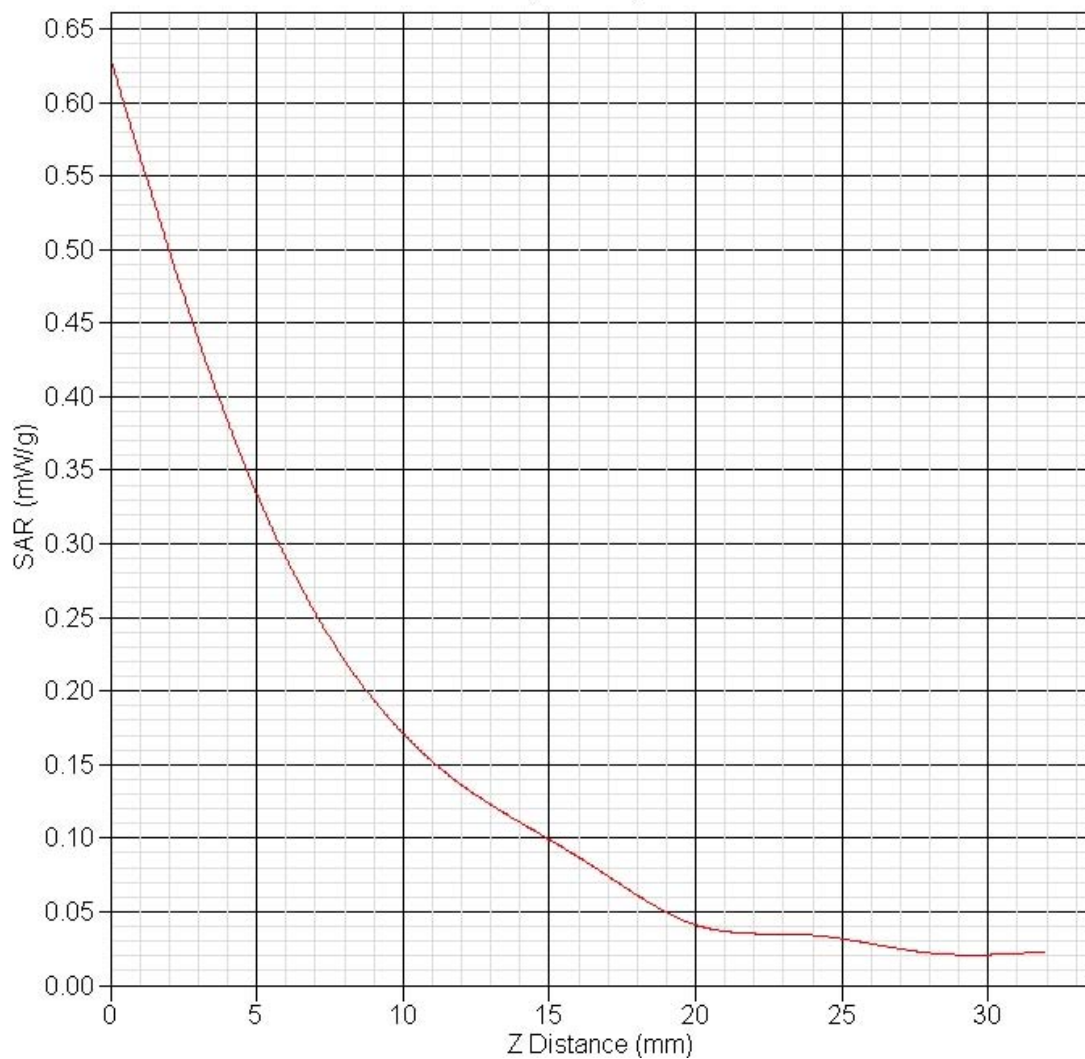
1 gram SAR value : 0.321 W/kg
 Zoom Scan Peak SAR : 0.630 W/kg

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	•3	$(1-cp)^{1/2}$	$(1-cp)^{1/2}$	1.5	1.5
Hemispherical Isotropy	10.9	rectangular	•3	•cp	•cp	4.4	4.4
Boundary Effect	1.0	rectangular	•3	1	1	0.6	0.6
Linearity	4.7	rectangular	•3	1	1	2.7	2.7
Detection Limit	1.0	rectangular	•3	1	1	0.6	0.6
Readout Electronics	1.0	normal	1	1	1	1.0	1.0
Response Time	0.8	rectangular	•3	1	1	0.5	0.5
Integration Time	1.7	rectangular	•3	1	1	1.0	1.0
RF Ambient Condition	3.0	rectangular	•3	1	1	1.7	1.7
Probe Positioner Mech.	0.4	rectangular	•3	1	1	0.2	0.2
Restriction							
Probe Positioning with respect to Phantom Shell	2.9	rectangular	•3	1	1	1.7	1.7
Extrapolation and Integration	3.7	rectangular	•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	1.7	rectangular	•3	1	1	1	1
Phantom and Setup							
Phantom Uncertainty(shape & thickness tolerance)	3.4	rectangular	•3	1	1	2	2
Liquid Conductivity(target)	5.0	rectangular	•3	0.7	0.5	2	1.4
Liquid Conductivity(meas.)	0.5	normal	1	0.7	0.5	0.4	0.3
Liquid Permittivity(target)	5.0	rectangular	•3	0.6	0.5	1.7	1.4
Liquid Permittivity(meas.)	3.6	normal	1	0.6	0.5	2.2	1.8
Combined Uncertainty		RSS				9.3	7.9
Combined Uncertainty (coverage factor=2)		Normal (k=2)				18.6	15.8

SAR-Z Axis

at Hotspot x:20.05 y:9.88





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SAR Test Report

Report Date : 25-Aug-2008
 By Operator : 123
 Measurement Date : 25-Aug-2008
 Starting Time : 25-Aug-2008 11:57:44 AM
 End Time : 25-Aug-2008 12:14:12 PM
 Scanning Time : 988 secs

Product Data
 Device Name : Hepburn amphenol front
 Serial No. : 5355
 Type : Other
 Model : HEP-E2-M4
 Frequency : 2450.00 MHz
 Max. Transmit Pwr : 1 W
 Drift Time : 0 min(s)
 Length : 115 mm
 Width : 90 mm
 Depth : 15 mm
 Antenna Type : Internal
 Orientation : Touch
 Power Drift-Start : 0.024 W/kg
 Power Drift-Finish : 0.023 W/kg
 Power Drift (%) : -2.915
 Picture : C:\alsas\bitmap\Hep-5355-front.bmp

Phantom Data
 Name : APREL-Uni
 Type : Uni-Phantom
 Size (mm) : 280 x 280 x 200
 Serial No. : System Default
 Location : Center
 Description : SD

Tissue Data
 Type : BODY
 Serial No. : 2450_B
 Frequency : 2450.00 MHz
 Last Calib. Date : 21-Aug-2008
 Temperature : 20.00 °C
 Ambient Temp. : 21.00 °C
 Humidity : 40.00 RH%
 Epsilon : 50.98 F/m
 Sigma : 1.97 S/m
 Density : 1000.00 kg/cu. m





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Probe Data

Name : APREL
 Model : E-020
 Type : E-Field Triangle
 Serial No. : 225
 Last Calib. Date : 03-May-2007
 Frequency : 2450.00 MHz
 Duty Cycle Factor: 1
 Conversion Factor: 4.01
 Probe Sensitivity: 1.20 1.20 1.20 $\mu\text{V}/(\text{V}/\text{m})^2$
 Compression Point: 95.00 mV
 Offset : 1.56 mm

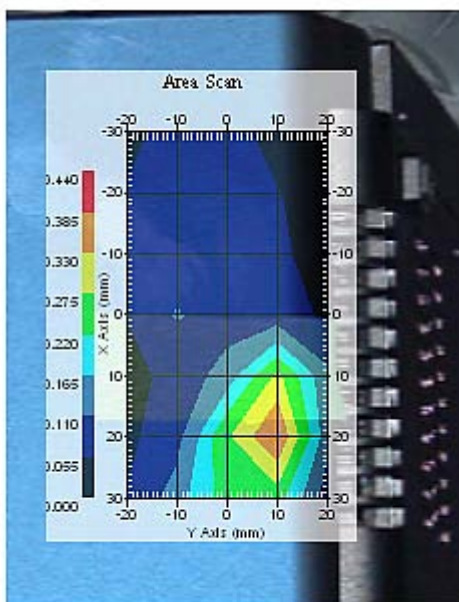
Measurement Data

Crest Factor : 1
 Scan Type : Complete
 Tissue Temp. : 20.00 °C
 Ambient Temp. : 21.00 °C
 Set-up Date : 25-Aug-2008
 Set-up Time : 11:49:05 AM
 Area Scan : 7x5x1 : Measurement x=10mm, y=10mm, z=4mm
 Zoom Scan : 5x5x8 : Measurement x=8mm, y=8mm, z=4mm

Other Data

DUT Position : Touch
 Separation : 0
 Channel : Mid





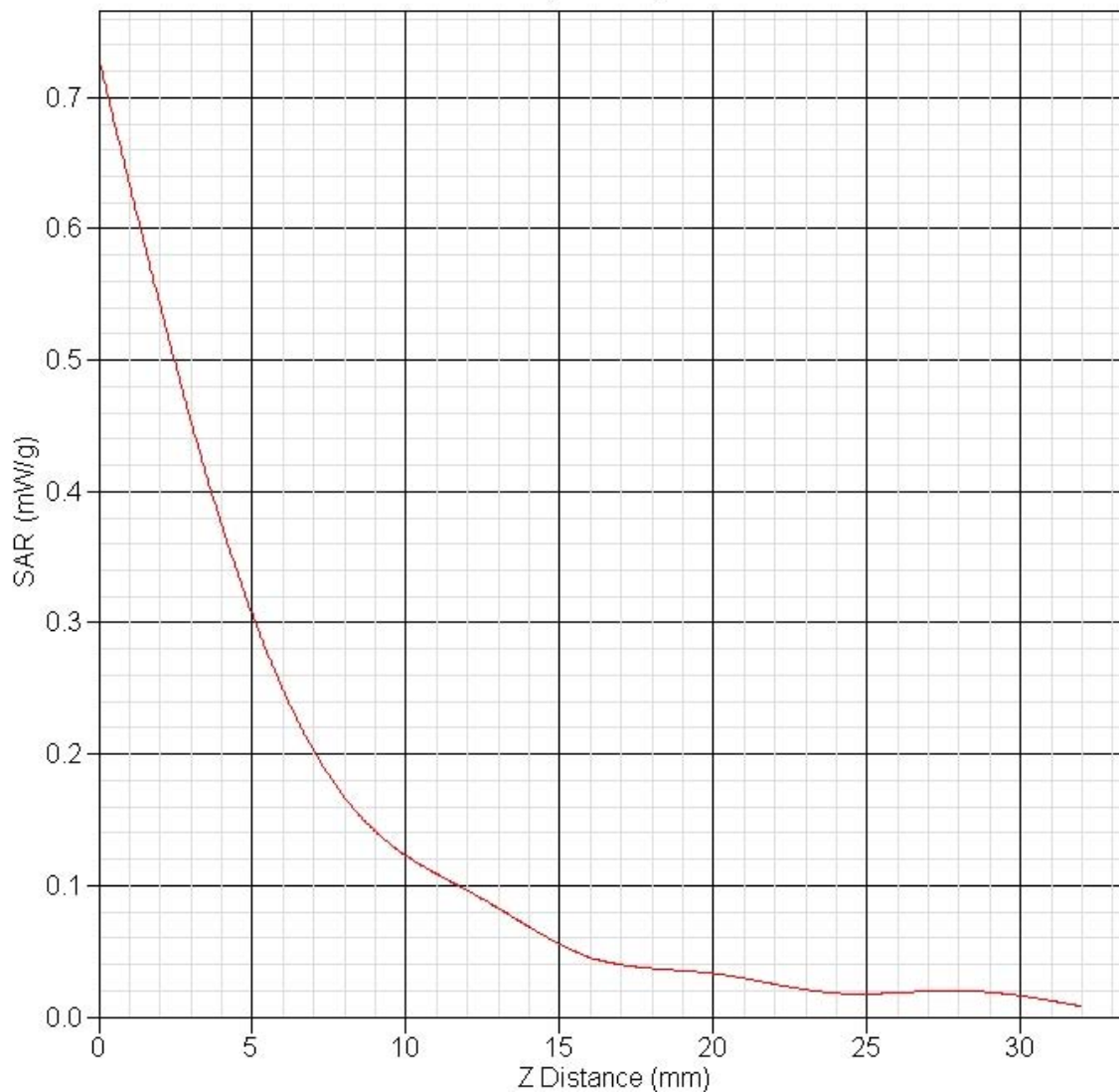
1 gram SAR value : 0.275 W/kg
 Zoom Scan Peak SAR : 0.730 W/kg

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	•3	$(1-cp)^{1/2}$	$(1-cp)^{1/2}$	1.5	1.5
Hemispherical Isotropy	10.9	rectangular	•3	•cp	•cp	4.4	4.4
Boundary Effect	1.0	rectangular	•3	1	1	0.6	0.6
Linearity	4.7	rectangular	•3	1	1	2.7	2.7
Detection Limit	1.0	rectangular	•3	1	1	0.6	0.6
Readout Electronics	1.0	normal	1	1	1	1.0	1.0
Response Time	0.8	rectangular	•3	1	1	0.5	0.5
Integration Time	1.7	rectangular	•3	1	1	1.0	1.0
RF Ambient Condition	3.0	rectangular	•3	1	1	1.7	1.7
Probe Positioner Mech.	0.4	rectangular	•3	1	1	0.2	0.2
Restriction							
Probe Positioning with respect to Phantom Shell	2.9	rectangular	•3	1	1	1.7	1.7
Extrapolation and Integration	3.7	rectangular	•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	2.9	rectangular	•3	1	1	1.7	1.7
Phantom and Setup							
Phantom Uncertainty(shape & thickness tolerance)	3.4	rectangular	•3	1	1	2	2
Liquid Conductivity(target)	5.0	rectangular	•3	0.7	0.5	2	1.4
Liquid Conductivity(meas.)	0.5	normal	1	0.7	0.5	0.4	0.3
Liquid Permittivity(target)	5.0	rectangular	•3	0.6	0.5	1.7	1.4
Liquid Permittivity(meas.)	3.6	normal	1	0.6	0.5	2.2	1.8
Combined Uncertainty		RSS				10	8.6
Combined Uncertainty (coverage factor=2)		Normal (k=2)				20	17.2

SAR-Z Axis

at Hotspot x:12.08 y:9.88





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SAR Test Report

Report Date : 25-Aug-2008
 By Operator : 123
 Measurement Date : 25-Aug-2008
 Starting Time : 25-Aug-2008 12:16:54 PM
 End Time : 25-Aug-2008 12:33:20 PM
 Scanning Time : 986 secs

Product Data
 Device Name : Hepburn amphenol front
 Serial No. : 5355
 Type : Other
 Model : HEP-E2-M4
 Frequency : 2450.00 MHz
 Max. Transmit Pwr : 1 W
 Drift Time : 0 min(s)
 Length : 115 mm
 Width : 90 mm
 Depth : 15 mm
 Antenna Type : Internal
 Orientation : Touch
 Power Drift-Start : 0.019 W/kg
 Power Drift-Finish : 0.019 W/kg
 Power Drift (%) : 0.797
 Picture : C:\alsas\bitmap\Hep-5355-front.bmp

Phantom Data
 Name : APREL-Uni
 Type : Uni-Phantom
 Size (mm) : 280 x 280 x 200
 Serial No. : System Default
 Location : Center
 Description : SD

Tissue Data
 Type : BODY
 Serial No. : 2450_B
 Frequency : 2450.00 MHz
 Last Calib. Date : 21-Aug-2008
 Temperature : 20.00 °C
 Ambient Temp. : 21.00 °C
 Humidity : 40.00 RH%
 Epsilon : 50.79 F/m
 Sigma : 1.94 S/m
 Density : 1000.00 kg/cu. m





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Probe Data

Name : APREL
 Model : E-020
 Type : E-Field Triangle
 Serial No. : 225
 Last Calib. Date : 03-May-2007
 Frequency : 2450.00 MHz
 Duty Cycle Factor: 1
 Conversion Factor: 4.01
 Probe Sensitivity: 1.20 1.20 1.20 $\mu\text{V}/(\text{V}/\text{m})^2$
 Compression Point: 95.00 mV
 Offset : 1.56 mm

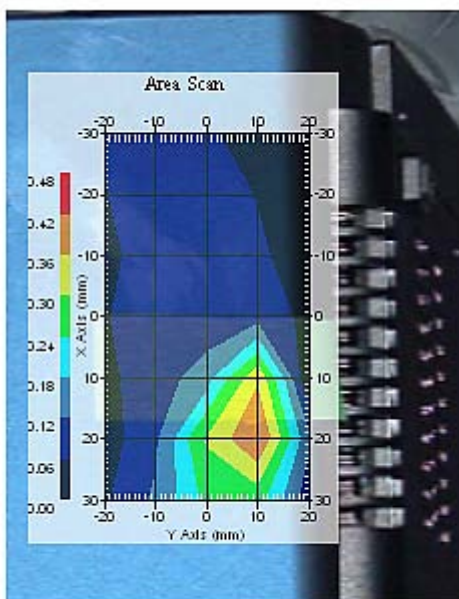
Measurement Data

Crest Factor : 1
 Scan Type : Complete
 Tissue Temp. : 20.00 °C
 Ambient Temp. : 21.00 °C
 Set-up Date : 25-Aug-2008
 Set-up Time : 12:16:17 PM
 Area Scan : 7x5x1 : Measurement x=10mm, y=10mm, z=4mm
 Zoom Scan : 5x5x8 : Measurement x=8mm, y=8mm, z=4mm

Other Data

DUT Position : Touch
 Separation : 0
 Channel : Mid





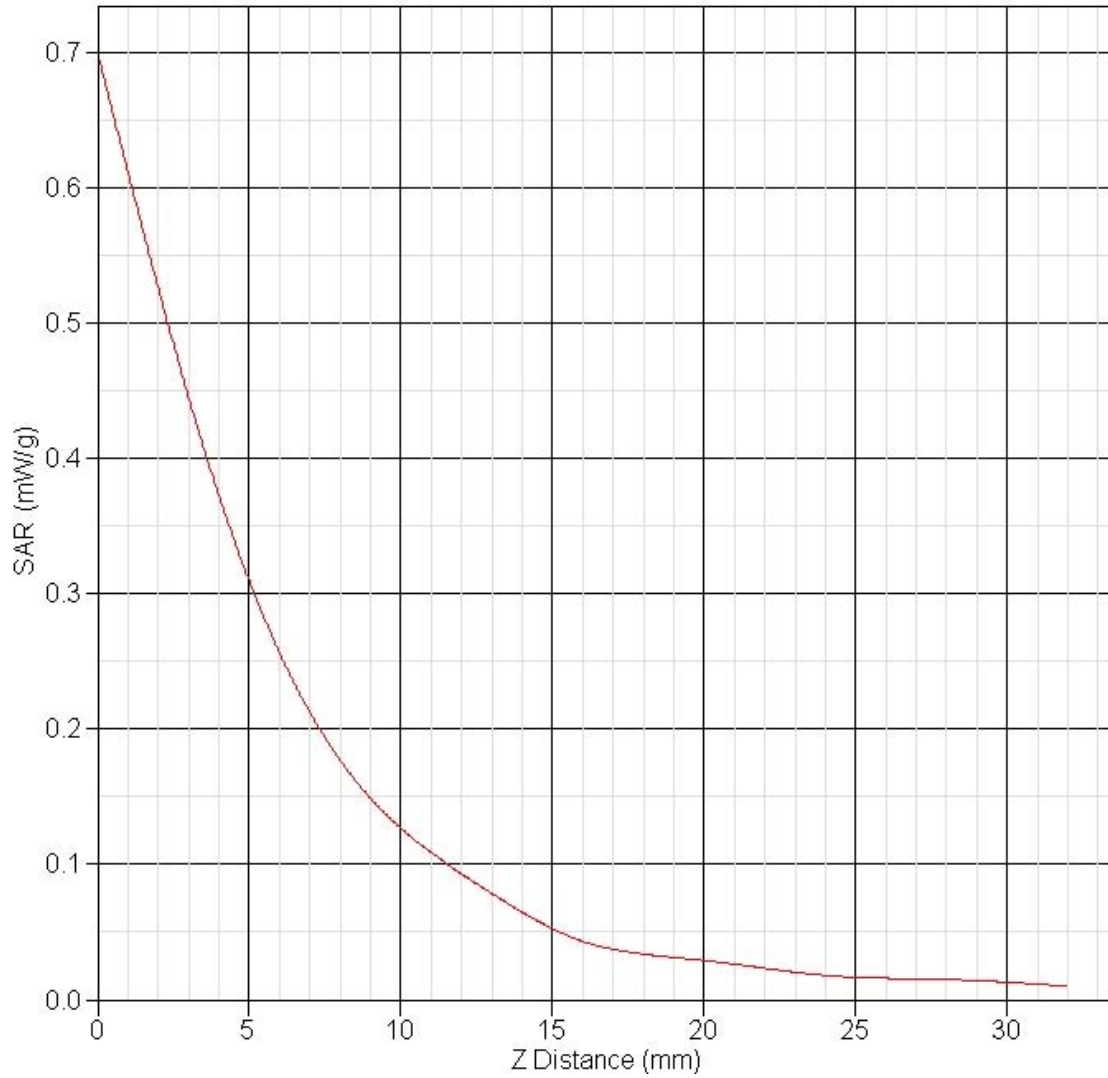
1 gram SAR value : 0.290 W/kg
 Zoom Scan Peak SAR : 0.700 W/kg

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	•3	$(1-cp)^{1/2}$	$(1-cp)^{1/2}$	1.5	1.5
Hemispherical Isotropy	10.9	rectangular	•3	•cp	•cp	4.4	4.4
Boundary Effect	1.0	rectangular	•3	1	1	0.6	0.6
Linearity	4.7	rectangular	•3	1	1	2.7	2.7
Detection Limit	1.0	rectangular	•3	1	1	0.6	0.6
Readout Electronics	1.0	normal	1	1	1	1.0	1.0
Response Time	0.8	rectangular	•3	1	1	0.5	0.5
Integration Time	1.7	rectangular	•3	1	1	1.0	1.0
RF Ambient Condition	3.0	rectangular	•3	1	1	1.7	1.7
Probe Positioner Mech.	0.4	rectangular	•3	1	1	0.2	0.2
Restriction							
Probe Positioning with respect to Phantom Shell	2.9	rectangular	•3	1	1	1.7	1.7
Extrapolation and Integration	3.7	rectangular	•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	1.0	rectangular	•3	1	1	0.6	0.6
Phantom and Setup							
Phantom Uncertainty(shape & thickness tolerance)	3.4	rectangular	•3	1	1	2	2
Liquid Conductivity(target)	5.0	rectangular	•3	0.7	0.5	2	1.4
Liquid Conductivity(meas.)	0.5	normal	1	0.7	0.5	0.4	0.3
Liquid Permittivity(target)	5.0	rectangular	•3	0.6	0.5	1.7	1.4
Liquid Permittivity(meas.)	3.6	normal	1	0.6	0.5	2.2	1.8
Combined Uncertainty		RSS				8.9	7.5
Combined Uncertainty (coverage factor=2)		Normal (k=2)				17.8	15

SAR-Z Axis

at Hotspot x:12.07 y:9.88





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SAR Test Report

Report Date : 15-Sep-2008
 By Operator : 123
 Measurement Date : 15-Sep-2008
 Starting Time : 15-Sep-2008 12:56:02 PM
 End Time : 15-Sep-2008 02:17:55 PM
 Scanning Time : 1313 secs

Product Data
 Device Name : Hepburn amphenol front
 Serial No. : 5355
 Type : Other
 Model : APL
 Frequency : 5200.00 MHz
 Max. Transmit Pwr : 1 W
 Drift Time : 0 min(s)
 Length : 110 mm
 Width : 80 mm
 Depth : 10 mm
 Antenna Type : Internal
 Orientation : Touch
 Power Drift-Start : 0.054 W/kg
 Power Drift-Finish : 0.053 W/kg
 Power Drift (%) : -5.901
 Picture : C:\alsas\bitmap\Hep-5355-front.bmp

Phantom Data
 Name : APREL-Uni
 Type : Uni-Phantom
 Size (mm) : 280 x 280 x 200
 Serial No. : System Default
 Location : Center
 Description : SD

Tissue Data
 Type : BODY
 Serial No. : 5200-B
 Frequency : 5200.00 MHz
 Last Calib. Date : 15-Sep-2008
 Temperature : 20.00 °C
 Ambient Temp. : 21.00 °C
 Humidity : 40.00 RH%
 Epsilon : 47.96 F/m
 Sigma : 5.18 S/m
 Density : 1000.00 kg/cu. m





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Probe Data

Name : APREL
 Model : E-020
 Type : E-Field Triangle
 Serial No. : 225
 Last Calib. Date : 03-May-2007
 Frequency : 5200.00 MHz
 Duty Cycle Factor: 1
 Conversion Factor: 3.2
 Probe Sensitivity: 1.20 1.20 1.20 $\mu\text{V}/(\text{V/m})^2$
 Compression Point: 95.00 mV
 Offset : 1.56 mm

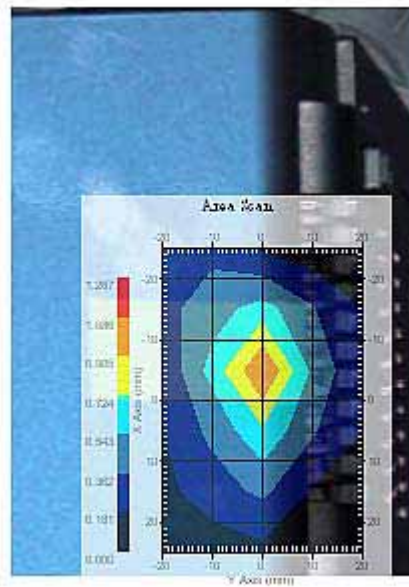
Measurement Data

Crest Factor : 1
 Scan Type : Complete
 Tissue Temp. : 20.00 °C
 Ambient Temp. : 20.00 °C
 Set-up Date : 15-Sep-2008
 Set-up Time : 12:54:43 PM
 Area Scan : 6x5x1 : Measurement x=10mm, y=10mm, z=2mm
 Zoom Scan : 8x8x17 : Measurement x=4mm, y=4mm, z=2mm

Other Data

DUT Position : Touch
 Separation : 0
 Channel : Low



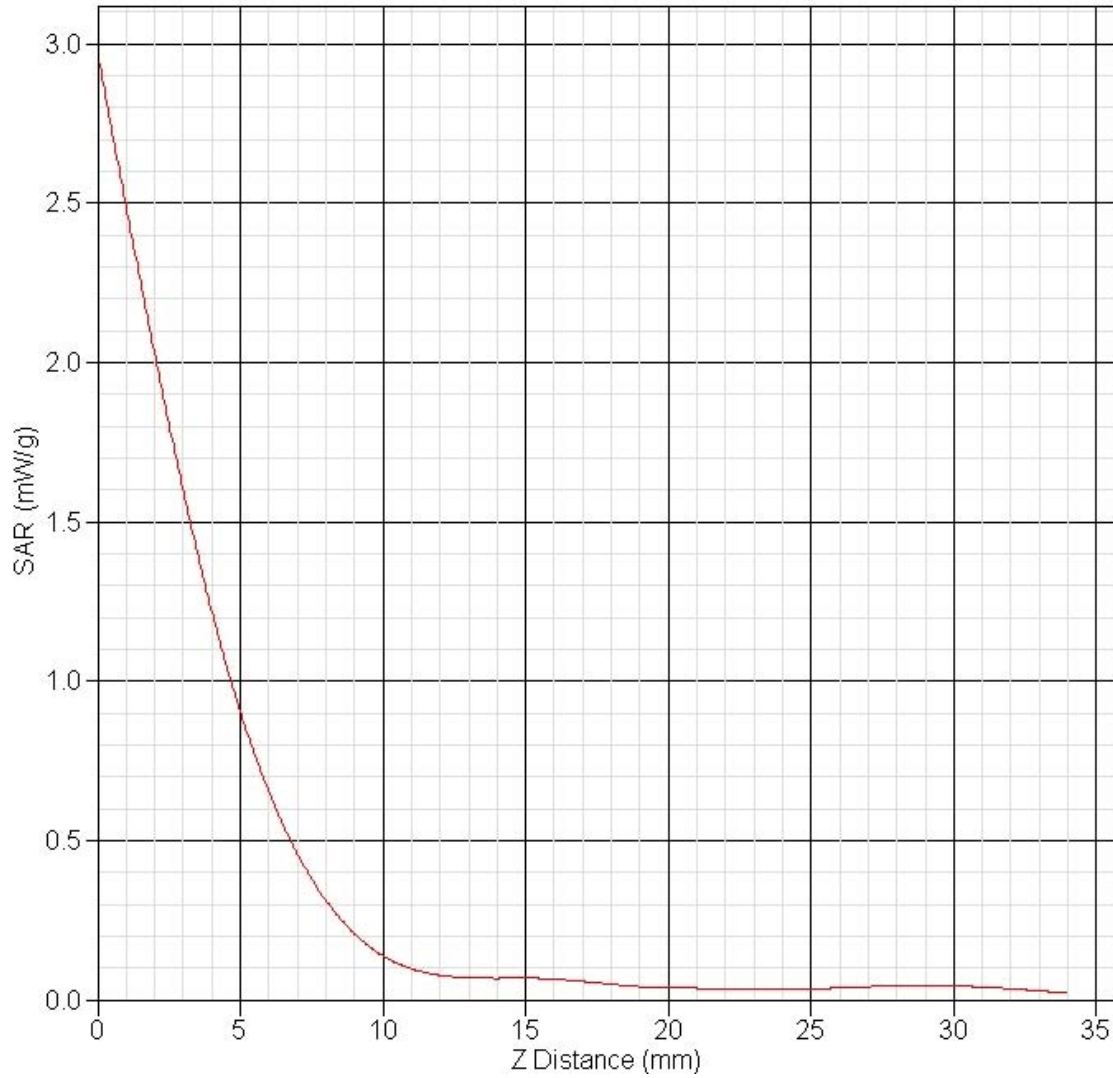


1 gram SAR value : 1.071 W/kg
 Zoom Scan Peak SAR : 2.972 W/kg

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	•3	$(1-cp)^{1/2}$	$(1-cp)^{1/2}$	1.5	1.5
Hemispherical Isotropy	10.9	rectangular	•3	•cp	•cp	4.4	4.4
Boundary Effect	1.0	rectangular	•3	1	1	0.6	0.6
Linearity	4.7	rectangular	•3	1	1	2.7	2.7
Detection Limit	1.0	rectangular	•3	1	1	0.6	0.6
Readout Electronics	1.0	normal	1	1	1	1.0	1.0
Response Time	0.8	rectangular	•3	1	1	0.5	0.5
Integration Time	1.7	rectangular	•3	1	1	1.0	1.0
RF Ambient Condition	3.0	rectangular	•3	1	1	1.7	1.7
Probe Positioner Mech.	0.4	rectangular	•3	1	1	0.2	0.2
Restriction							
Probe Positioning with respect to Phantom Shell	2.9	rectangular	•3	1	1	1.7	1.7
Extrapolation and Integration	3.7	rectangular	•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	6.0	rectangular	•3	1	1	3.5	3.5
Phantom and Setup							
Phantom Uncertainty(shape & thickness tolerance)	3.4	rectangular	•3	1	1	2	2
Liquid Conductivity(target)	5.0	rectangular	•3	0.7	0.5	2	1.4
Liquid Conductivity(meas.)	3.2	normal	1	0.7	0.5	2.2	1.6
Liquid Permittivity(target)	5.0	rectangular	•3	0.6	0.5	1.7	1.4
Liquid Permittivity(meas.)	1.9	normal	1	0.6	0.5	1.2	1
Combined Uncertainty		RSS				12.6	10.9
Combined Uncertainty (coverage factor=2)		Normal (k=2)				25.2	21.8

SAR-Z Axis at Hotspot x:-4.95 y:-0.15





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SAR Test Report

Report Date : 15-Sep-2008
 By Operator : 123
 Measurement Date : 15-Sep-2008
 Starting Time : 15-Sep-2008 03:16:16 PM
 End Time : 15-Sep-2008 04:38:18 PM
 Scanning Time : 1322 secs

Product Data
 Device Name : Hepburn amphenol front
 Serial No. : 5355
 Type : Other
 Model : APL
 Frequency : 5200.00 MHz
 Max. Transmit Pwr : 1 W
 Drift Time : 0 min(s)
 Length : 110 mm
 Width : 80 mm
 Depth : 10 mm
 Antenna Type : Internal
 Orientation : Touch
 Power Drift-Start : 0.034 W/kg
 Power Drift-Finish : 0.033 W/kg
 Power Drift (%) : 2.182
 Picture : C:\alsas\bitmap\Hep-5355-front.bmp

Phantom Data
 Name : APREL-Uni
 Type : Uni-Phantom
 Size (mm) : 280 x 280 x 200
 Serial No. : System Default
 Location : Center
 Description : SD

Tissue Data
 Type : BODY
 Serial No. : 5200-B
 Frequency : 5200.00 MHz
 Last Calib. Date : 15-Sep-2008
 Temperature : 20.00 °C
 Ambient Temp. : 21.00 °C
 Humidity : 40.00 RH%
 Epsilon : 47.96 F/m
 Sigma : 5.18 S/m
 Density : 1000.00 kg/cu. m





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Probe Data

Name : APREL
 Model : E-020
 Type : E-Field Triangle
 Serial No. : 225
 Last Calib. Date : 03-May-2007
 Frequency : 5200.00 MHz
 Duty Cycle Factor: 1
 Conversion Factor: 3.2
 Probe Sensitivity: 1.20 1.20 1.20 $\mu\text{V}/(\text{V}/\text{m})^2$
 Compression Point: 95.00 mV
 Offset : 1.56 mm

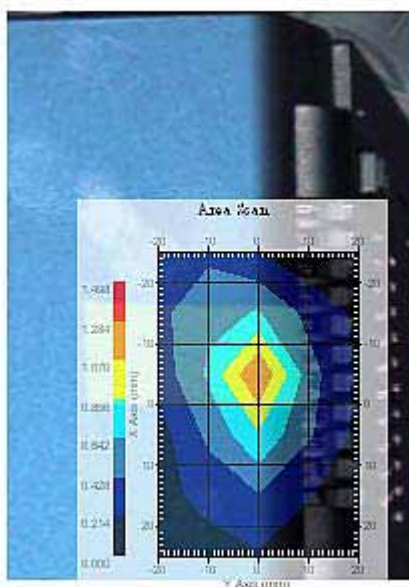
Measurement Data

Crest Factor : 1
 Scan Type : Complete
 Tissue Temp. : 20.00 °C
 Ambient Temp. : 20.00 °C
 Set-up Date : 15-Sep-2008
 Set-up Time : 3:15:38 PM
 Area Scan : 6x5x1 : Measurement x=10mm, y=10mm, z=2mm
 Zoom Scan : 8x8x17 : Measurement x=4mm, y=4mm, z=2mm

Other Data

DUT Position : Touch
 Separation : 0
 Channel : Low





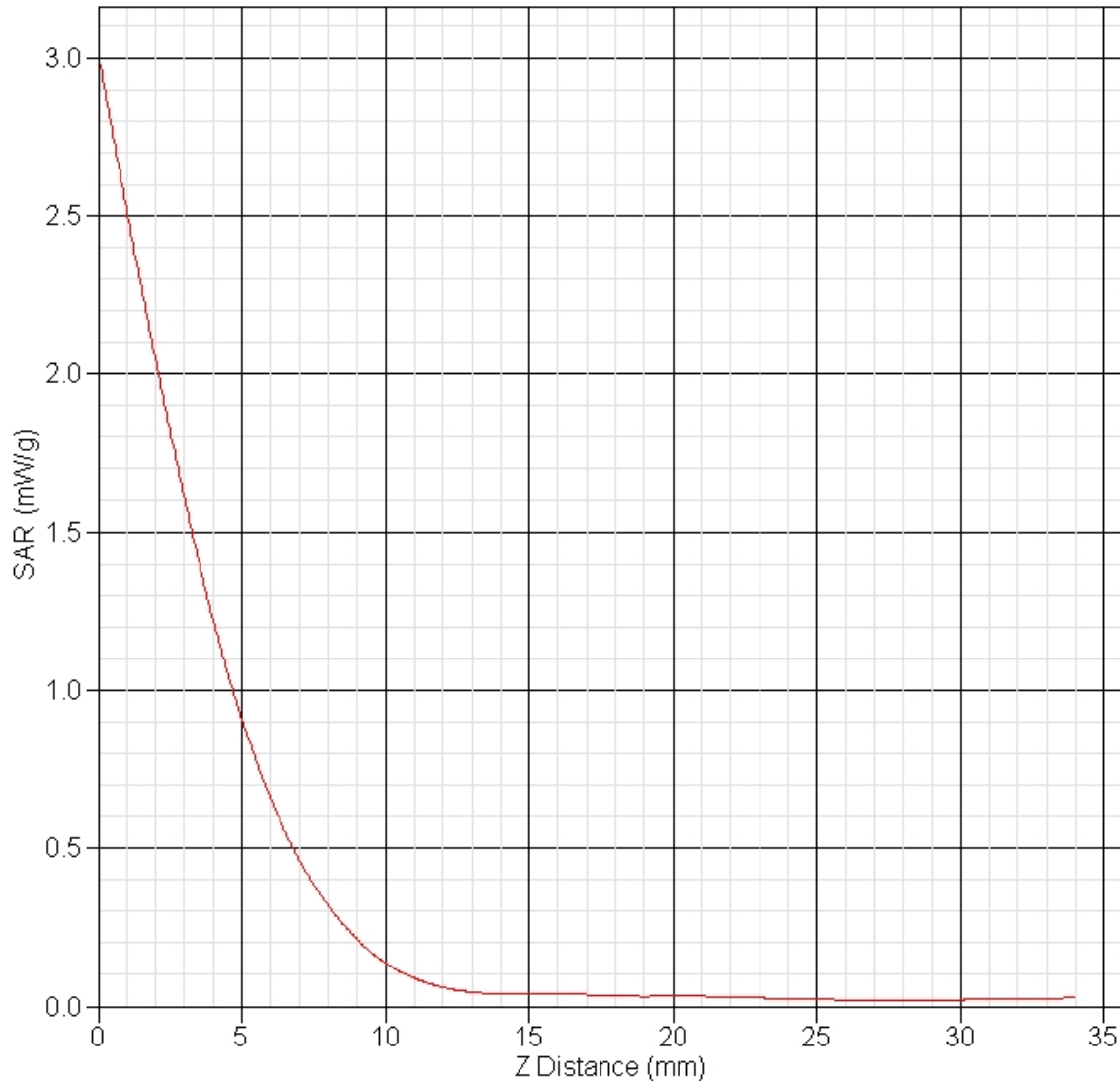
1 gram SAR value : 1.114 W/kg
 Zoom Scan Peak SAR : 3.012 W/kg

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	•3	$(1-cp)^{1/2}$	$(1-cp)^{1/2}$	1.5	1.5
Hemispherical Isotropy	10.9	rectangular	•3	•cp	•cp	4.4	4.4
Boundary Effect	1.0	rectangular	•3	1	1	0.6	0.6
Linearity	4.7	rectangular	•3	1	1	2.7	2.7
Detection Limit	1.0	rectangular	•3	1	1	0.6	0.6
Readout Electronics	1.0	normal	1	1	1	1.0	1.0
Response Time	0.8	rectangular	•3	1	1	0.5	0.5
Integration Time	1.7	rectangular	•3	1	1	1.0	1.0
RF Ambient Condition	3.0	rectangular	•3	1	1	1.7	1.7
Probe Positioner Mech.	0.4	rectangular	•3	1	1	0.2	0.2
Restriction							
Probe Positioning with respect to Phantom Shell	2.9	rectangular	•3	1	1	1.7	1.7
Extrapolation and Integration	3.7	rectangular	•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	2.2	rectangular	•3	1	1	1.3	1.3
Phantom and Setup							
Phantom Uncertainty(shape & thickness tolerance)	3.4	rectangular	•3	1	1	2	2
Liquid Conductivity(target)	5.0	rectangular	•3	0.7	0.5	2	1.4
Liquid Conductivity(meas.)	3.2	normal	1	0.7	0.5	2.2	1.6
Liquid Permittivity(target)	5.0	rectangular	•3	0.6	0.5	1.7	1.4
Liquid Permittivity(meas.)	1.9	normal	1	0.6	0.5	1.2	1
Combined Uncertainty		RSS				10.4	8.7
Combined Uncertainty (coverage factor=2)		Normal (k=2)				20.8	17.4

SAR-Z Axis

at Hotspot x:0.06 y:-0.10





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SAR Test Report

Report Date : 15-Sep-2008
 By Operator : 123
 Measurement Date : 15-Sep-2008
 Starting Time : 15-Sep-2008 04:39:19 PM
 End Time : 15-Sep-2008 06:01:10 PM
 Scanning Time : 1311 secs

Product Data
 Device Name : Hepburn amphenol front
 Serial No. : 5355
 Type : Other
 Model : APL
 Frequency : 5600.00 MHz
 Max. Transmit Pwr : 1 W
 Drift Time : 0 min(s)
 Length : 110 mm
 Width : 80 mm
 Depth : 10 mm
 Antenna Type : Internal
 Orientation : Touch
 Power Drift-Start : 0.014 W/kg
 Power Drift-Finish : 0.015 W/kg
 Power Drift (%) : -3.894
 Picture : C:\alsas\bitmap\Hep-5355-front.bmp

Phantom Data
 Name : APREL-Uni
 Type : Uni-Phantom
 Size (mm) : 280 x 280 x 200
 Serial No. : System Default
 Location : Center
 Description : SD

Tissue Data
 Type : BODY
 Serial No. : 5600BB
 Frequency : 5600.00 MHz
 Last Calib. Date : 15-Sep-2008
 Temperature : 20.00 °C
 Ambient Temp. : 20.00 °C
 Humidity : 40.00 RH%
 Epsilon : 46.49 F/m
 Sigma : 5.77 S/m
 Density : 1000.00 kg/cu. m





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Probe Data

Name : APREL
 Model : E-020
 Type : E-Field Triangle
 Serial No. : 225
 Last Calib. Date : 03-May-2007
 Frequency : 5600.00 MHz
 Duty Cycle Factor: 1
 Conversion Factor: 3.9
 Probe Sensitivity: 1.20 1.20 1.20 $\mu\text{V}/(\text{V}/\text{m})^2$
 Compression Point: 95.00 mV
 Offset : 1.56 mm

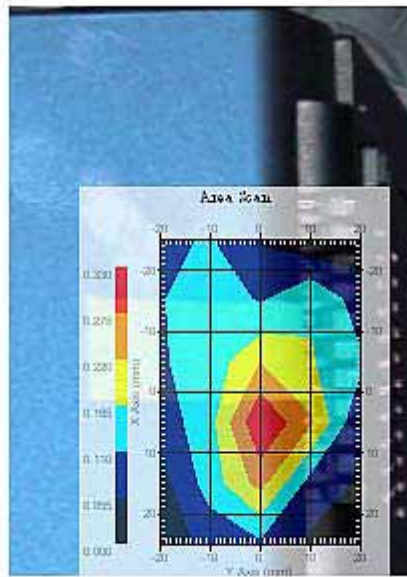
Measurement Data

Crest Factor : 1
 Scan Type : Complete
 Tissue Temp. : 20.00 °C
 Ambient Temp. : 20.00 °C
 Set-up Date : 15-Sep-2008
 Set-up Time : 4:38:48 PM
 Area Scan : 6x5x1 : Measurement x=10mm, y=10mm, z=2mm
 Zoom Scan : 8x8x17 : Measurement x=4mm, y=4mm, z=2mm

Other Data

DUT Position : Touch
 Separation : 0
 Channel : High





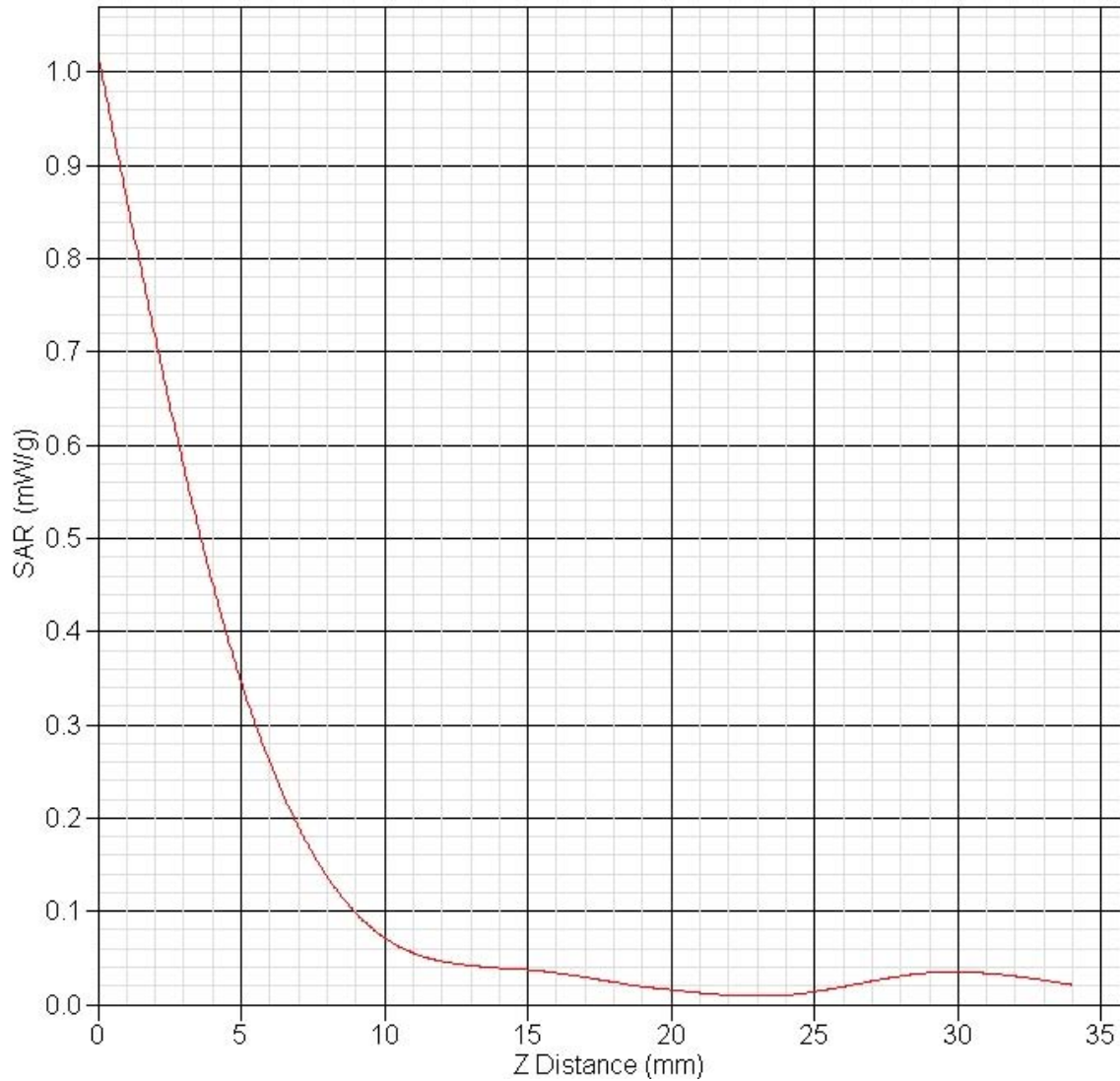
1 gram SAR value : 0.344 W/kg
 Zoom Scan Peak SAR : 1.020 W/kg

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	•3	$(1-cp)^{1/2}$	$(1-cp)^{1/2}$	1.5	1.5
Hemispherical Isotropy	10.9	rectangular	•3	•cp	•cp	4.4	4.4
Boundary Effect	1.0	rectangular	•3	1	1	0.6	0.6
Linearity	4.7	rectangular	•3	1	1	2.7	2.7
Detection Limit	1.0	rectangular	•3	1	1	0.6	0.6
Readout Electronics	1.0	normal	1	1	1	1.0	1.0
Response Time	0.8	rectangular	•3	1	1	0.5	0.5
Integration Time	1.7	rectangular	•3	1	1	1.0	1.0
RF Ambient Condition	3.0	rectangular	•3	1	1	1.7	1.7
Probe Positioner Mech.	0.4	rectangular	•3	1	1	0.2	0.2
Restriction							
Probe Positioning with respect to Phantom Shell	2.9	rectangular	•3	1	1	1.7	1.7
Extrapolation and Integration	3.7	rectangular	•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	4.0	rectangular	•3	1	1	2.3	2.3
Phantom and Setup							
Phantom Uncertainty(shape & thickness tolerance)	3.4	rectangular	•3	1	1	2	2
Liquid Conductivity(target)	5.0	rectangular	•3	0.7	0.5	2	1.4
Liquid Conductivity(meas.)	1.4	normal	1	0.7	0.5	1	0.7
Liquid Permittivity(target)	5.0	rectangular	•3	0.6	0.5	1.7	1.4
Liquid Permittivity(meas.)	1.4	normal	1	0.6	0.5	0.8	0.7
Combined Uncertainty		RSS				9.8	8.5
Combined Uncertainty (coverage factor=2)		Normal (k=2)				19.6	17

SAR-Z Axis

at Hotspot x:5.05 y:-0.13





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SAR Test Report

Report Date : 15-Sep-2008
 By Operator : 123
 Measurement Date : 15-Sep-2008
 Starting Time : 15-Sep-2008 07:35:21 PM
 End Time : 15-Sep-2008 08:57:21 PM
 Scanning Time : 1320 secs

Product Data
 Device Name : Hepburn amphenol front
 Serial No. : 5355
 Type : Other
 Model : APL
 Frequency : 5600.00 MHz
 Max. Transmit Pwr : 1 W
 Drift Time : 0 min(s)
 Length : 110 mm
 Width : 80 mm
 Depth : 10 mm
 Antenna Type : Internal
 Orientation : Touch
 Power Drift-Start : 0.016 W/kg
 Power Drift-Finish : 0.015 W/kg
 Power Drift (%) : -4.142
 Picture : C:\alsas\bitmap\Hep-5355-front.bmp

Phantom Data
 Name : APREL-Uni
 Type : Uni-Phantom
 Size (mm) : 280 x 280 x 200
 Serial No. : System Default
 Location : Center
 Description : SD

Tissue Data
 Type : BODY
 Serial No. : 5600BB
 Frequency : 5600.00 MHz
 Last Calib. Date : 15-Sep-2008
 Temperature : 20.00 °C
 Ambient Temp. : 20.00 °C
 Humidity : 40.00 RH%
 Epsilon : 46.49 F/m
 Sigma : 5.77 S/m
 Density : 1000.00 kg/cu. m





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Probe Data

Name : APREL
 Model : E-020
 Type : E-Field Triangle
 Serial No. : 225
 Last Calib. Date : 03-May-2007
 Frequency : 5600.00 MHz
 Duty Cycle Factor: 1
 Conversion Factor: 3.9
 Probe Sensitivity: 1.20 1.20 1.20 $\mu\text{V}/(\text{V/m})^2$
 Compression Point: 95.00 mV
 Offset : 1.56 mm

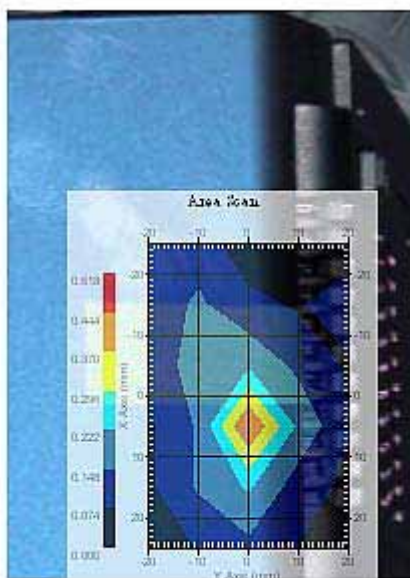
Measurement Data

Crest Factor : 1
 Scan Type : Complete
 Tissue Temp. : 20.00 °C
 Ambient Temp. : 20.00 °C
 Set-up Date : 15-Sep-2008
 Set-up Time : 5:33:50 PM
 Area Scan : 6x5x1 : Measurement x=10mm, y=10mm, z=2mm
 Zoom Scan : 8x8x17 : Measurement x=4mm, y=4mm, z=2mm

Other Data

DUT Position : Touch
 Separation : 0
 Channel : High





1 gram SAR value : 0.309 W/kg
 Zoom Scan Peak SAR : 0.820 W/kg



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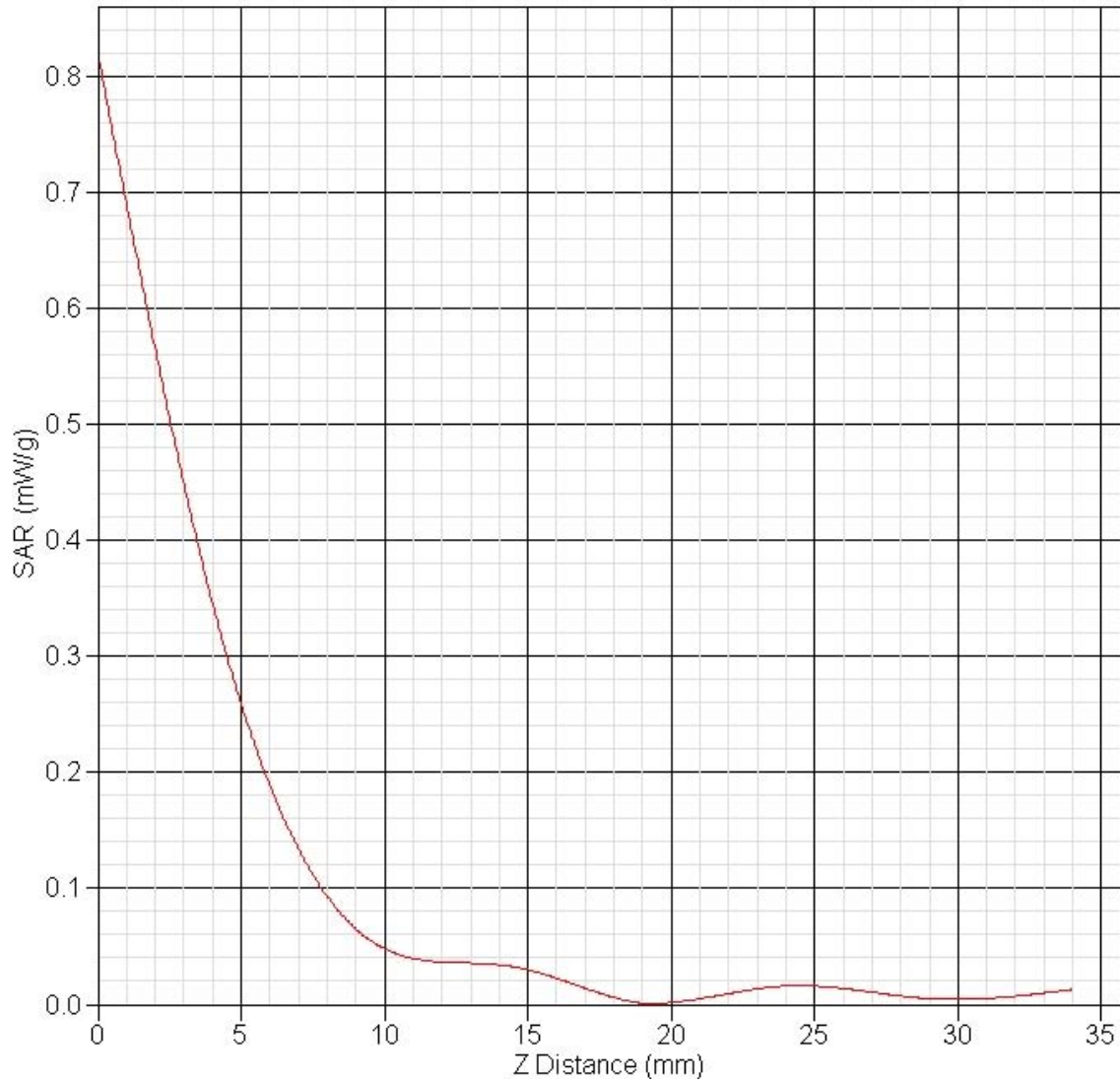
Exposure Assessment Measurement Uncertainty

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	•3	$(1-cp)^{1/2}$	$(1-cp)^{1/2}$	1.5	1.5
Hemispherical Isotropy	10.9	rectangular	•3	•cp	•cp	4.4	4.4
Boundary Effect	1.0	rectangular	•3	1	1	0.6	0.6
Linearity	4.7	rectangular	•3	1	1	2.7	2.7
Detection Limit	1.0	rectangular	•3	1	1	0.6	0.6
Readout Electronics	1.0	normal	1	1	1	1.0	1.0
Response Time	0.8	rectangular	•3	1	1	0.5	0.5
Integration Time	1.7	rectangular	•3	1	1	1.0	1.0
RF Ambient Condition	3.0	rectangular	•3	1	1	1.7	1.7
Probe Positioner Mech.	0.4	rectangular	•3	1	1	0.2	0.2
Restriction							
Probe Positioning with respect to Phantom Shell	2.9	rectangular	•3	1	1	1.7	1.7
Extrapolation and Integration	3.7	rectangular	•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	4.1	rectangular	•3	1	1	2.4	2.4
Phantom and Setup							
Phantom Uncertainty(shape & thickness tolerance)	3.4	rectangular	•3	1	1	2	2
Liquid Conductivity(target)	5.0	rectangular	•3	0.7	0.5	2	1.4
Liquid Conductivity(meas.)	1.4	normal	1	0.7	0.5	1	0.7
Liquid Permittivity(target)	5.0	rectangular	•3	0.6	0.5	1.7	1.4
Liquid Permittivity(meas.)	1.4	normal	1	0.6	0.5	0.8	0.7
Combined Uncertainty		RSS				9.9	8.6
Combined Uncertainty (coverage factor=2)		Normal (k=2)				19.8	17.2



SAR-Z Axis

at Hotspot x:5.06 y:-0.10





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SAR Test Report

Report Date : 16-Sep-2008
 By Operator : 123
 Measurement Date : 16-Sep-2008
 Starting Time : 16-Sep-2008 12:03:55 AM
 End Time : 16-Sep-2008 01:25:45 AM
 Scanning Time : 1310 secs

Product Data
 Device Name : Hepburn amphenol front
 Serial No. : 5355
 Type : Other
 Model : APL
 Frequency : 5800.00 MHz
 Max. Transmit Pwr : 1 W
 Drift Time : 0 min(s)
 Length : 110 mm
 Width : 80 mm
 Depth : 10 mm
 Antenna Type : Internal
 Orientation : Touch
 Power Drift-Start : 0.014 W/kg
 Power Drift-Finish : 0.014 W/kg
 Power Drift (%) : 0.699
 Picture : C:\alsas\bitmap\Hep-5355-front.bmp

Phantom Data
 Name : APREL-Uni
 Type : Uni-Phantom
 Size (mm) : 280 x 280 x 200
 Serial No. : System Default
 Location : Center
 Description : SD

Tissue Data
 Type : BODY
 Serial No. : 5800-B
 Frequency : 5800.00 MHz
 Last Calib. Date : 15-Sep-2008
 Temperature : 20.00 °C
 Ambient Temp. : 20.00 °C
 Humidity : 50.00 RH%
 Epsilon : 46.20 F/m
 Sigma : 6.10 S/m
 Density : 1000.00 kg/cu. m





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Probe Data

Name : APREL
 Model : E-020
 Type : E-Field Triangle
 Serial No. : 225
 Last Calib. Date : 03-May-2007
 Frequency : 5800.00 MHz
 Duty Cycle Factor: 1
 Conversion Factor: 3.9
 Probe Sensitivity: 1.20 1.20 1.20 $\mu\text{V}/(\text{V}/\text{m})^2$
 Compression Point: 95.00 mV
 Offset : 1.56 mm

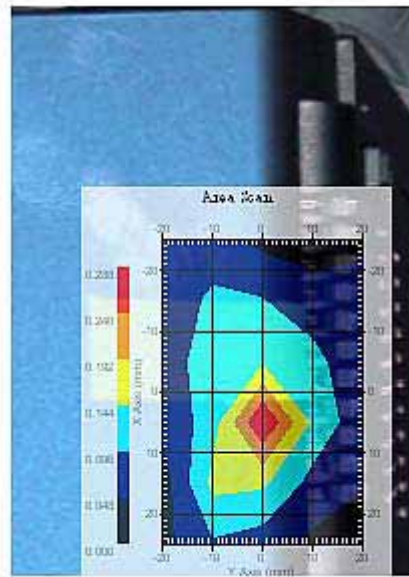
Measurement Data

Crest Factor : 1
 Scan Type : Complete
 Tissue Temp. : 20.00 °C
 Ambient Temp. : 20.00 °C
 Set-up Date : 16-Sep-2008
 Set-up Time : 11:03:26 AM
 Area Scan : 6x5x1 : Measurement x=10mm, y=10mm, z=2mm
 Zoom Scan : 8x8x17 : Measurement x=4mm, y=4mm, z=2mm

Other Data

DUT Position : Touch
 Separation : 0
 Channel : Mid





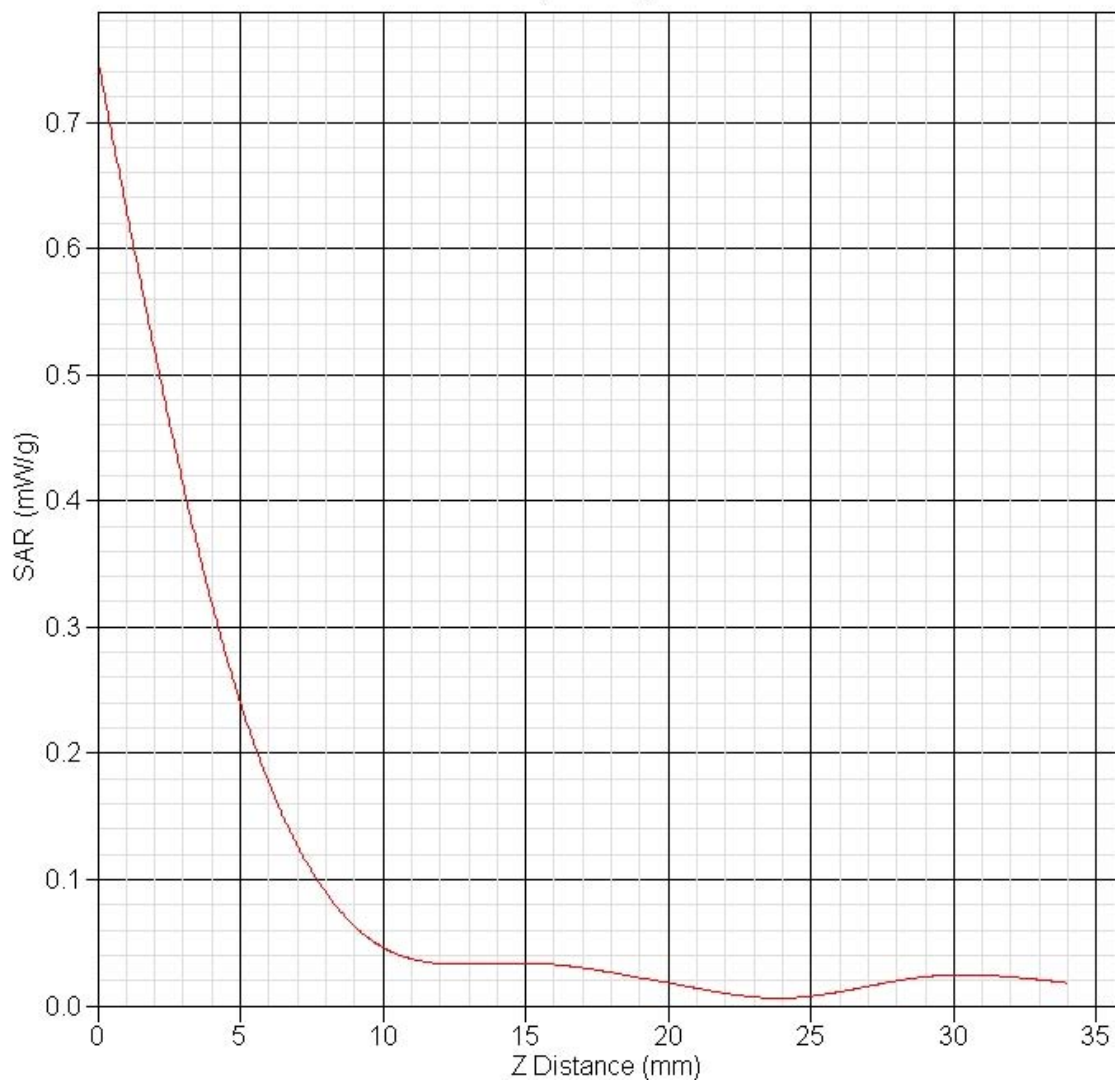
1 gram SAR value : 0.285 W/kg
 Zoom Scan Peak SAR : 0.750 W/kg

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	•3	$(1-cp)^{1/2}$	$(1-cp)^{1/2}$	1.5	1.5
Hemispherical Isotropy	10.9	rectangular	•3	•cp	•cp	4.4	4.4
Boundary Effect	1.0	rectangular	•3	1	1	0.6	0.6
Linearity	4.7	rectangular	•3	1	1	2.7	2.7
Detection Limit	1.0	rectangular	•3	1	1	0.6	0.6
Readout Electronics	1.0	normal	1	1	1	1.0	1.0
Response Time	0.8	rectangular	•3	1	1	0.5	0.5
Integration Time	1.7	rectangular	•3	1	1	1.0	1.0
RF Ambient Condition	3.0	rectangular	•3	1	1	1.7	1.7
Probe Positioner Mech.	0.4	rectangular	•3	1	1	0.2	0.2
Restriction							
Probe Positioning with respect to Phantom Shell	2.9	rectangular	•3	1	1	1.7	1.7
Extrapolation and Integration	3.7	rectangular	•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	0.7	rectangular	•3	1	1	0.4	0.4
Phantom and Setup							
Phantom Uncertainty(shape & thickness tolerance)	3.4	rectangular	•3	1	1	2	2
Liquid Conductivity(target)	5.0	rectangular	•3	0.7	0.5	2	1.4
Liquid Conductivity(meas.)	1.7	normal	1	0.7	0.5	1.2	0.8
Liquid Permittivity(target)	5.0	rectangular	•3	0.6	0.5	1.7	1.4
Liquid Permittivity(meas.)	4.1	normal	1	0.6	0.5	2.5	2.1
Combined Uncertainty		RSS				9.8	8.1
Combined Uncertainty (coverage factor=2)		Normal (k=2)				19.6	16.2

SAR-Z Axis

at Hotspot x:5.09 y:-0.07





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SAR Test Report

Report Date : 16-Sep-2008
 By Operator : 123
 Measurement Date : 16-Sep-2008
 Starting Time : 16-Sep-2008 01:33:29 AM
 End Time : 16-Sep-2008 02:55:24 AM
 Scanning Time : 1315 secs

Product Data
 Device Name : Hepburn amphenol front
 Serial No. : 5355
 Type : Other
 Model : APL
 Frequency : 5800.00 MHz
 Max. Transmit Pwr : 1 W
 Drift Time : 0 min(s)
 Length : 110 mm
 Width : 80 mm
 Depth : 10 mm
 Antenna Type : Internal
 Orientation : Touch
 Power Drift-Start : 0.039 W/kg
 Power Drift-Finish : 0.040 W/kg
 Power Drift (%) : 2.201
 Picture : C:\alsas\bitmap\Hep-5355-front.bmp

Phantom Data
 Name : APREL-Uni
 Type : Uni-Phantom
 Size (mm) : 280 x 280 x 200
 Serial No. : System Default
 Location : Center
 Description : SD

Tissue Data
 Type : BODY
 Serial No. : 5800-B
 Frequency : 5800.00 MHz
 Last Calib. Date : 15-Sep-2008
 Temperature : 20.00 °C
 Ambient Temp. : 20.00 °C
 Humidity : 50.00 RH%
 Epsilon : 46.20 F/m
 Sigma : 6.10 S/m
 Density : 1000.00 kg/cu. m





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Probe Data

Name : APREL
 Model : E-020
 Type : E-Field Triangle
 Serial No. : 225
 Last Calib. Date : 03-May-2007
 Frequency : 5800.00 MHz
 Duty Cycle Factor: 1
 Conversion Factor: 3.9
 Probe Sensitivity: 1.20 1.20 1.20 $\mu\text{V}/(\text{V}/\text{m})^2$
 Compression Point: 95.00 mV
 Offset : 1.56 mm

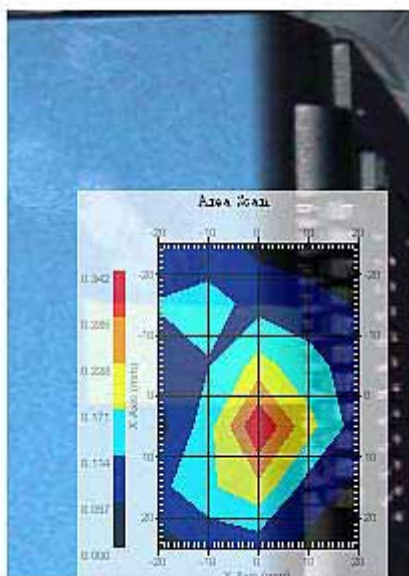
Measurement Data

Crest Factor : 1
 Scan Type : Complete
 Tissue Temp. : 20.00 °C
 Ambient Temp. : 20.00 °C
 Set-up Date : 16-Sep-2008
 Set-up Time : 11:30:42 AM
 Area Scan : 6x5x1 : Measurement x=10mm, y=10mm, z=2mm
 Zoom Scan : 8x8x17 : Measurement x=4mm, y=4mm, z=2mm

Other Data

DUT Position : Touch
 Separation : 0
 Channel : Mid





1 gram SAR value : 0.353 W/kg
 Zoom Scan Peak SAR : 1.100 W/kg

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	•3	$(1-cp)^{1/2}$	$(1-cp)^{1/2}$	1.5	1.5
Hemispherical Isotropy	10.9	rectangular	•3	•cp	•cp	4.4	4.4
Boundary Effect	1.0	rectangular	•3	1	1	0.6	0.6
Linearity	4.7	rectangular	•3	1	1	2.7	2.7
Detection Limit	1.0	rectangular	•3	1	1	0.6	0.6
Readout Electronics	1.0	normal	1	1	1	1.0	1.0
Response Time	0.8	rectangular	•3	1	1	0.5	0.5
Integration Time	1.7	rectangular	•3	1	1	1.0	1.0
RF Ambient Condition	3.0	rectangular	•3	1	1	1.7	1.7
Probe Positioner Mech.	0.4	rectangular	•3	1	1	0.2	0.2
Restriction							
Probe Positioning with respect to Phantom Shell	2.9	rectangular	•3	1	1	1.7	1.7
Extrapolation and Integration	3.7	rectangular	•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	2.2	rectangular	•3	1	1	1.3	1.3
Phantom and Setup							
Phantom Uncertainty(shape & thickness tolerance)	3.4	rectangular	•3	1	1	2	2
Liquid Conductivity(target)	5.0	rectangular	•3	0.7	0.5	2	1.4
Liquid Conductivity(meas.)	1.7	normal	1	0.7	0.5	1.2	0.8
Liquid Permittivity(target)	5.0	rectangular	•3	0.6	0.5	1.7	1.4
Liquid Permittivity(meas.)	4.1	normal	1	0.6	0.5	2.5	2.1
Combined Uncertainty		RSS				10.7	9
Combined Uncertainty (coverage factor=2)		Normal (k=2)				21.4	18

SAR-Z Axis

at Hotspot x:5.06 y:-0.12

