

Intel® WiFi-Link 5150 Series Network Connection with Yageo Antennas **802.11a Low Band MODE**

Power	16.45dBm
DUT Position	Underside
Separation	0mm
Antenna Type	IFA
Antenna Manufacturer	Yageo
Antenna Location	Left Hand Side
Power Mode	Battery
Tx Frequency	5180-5320MHz
Duty Cycle	100%
Epsilon	48.53
Sigma	5.27
Tissue Depth	15cm
Phantom Type	Universal
DUT Workstation Location	Centre
Device Positioner	Not Needed
Test Date	May 2009
Test Engineer	Maryna. N

Mode	Separation Distance (mm)	Channel	Frequency MHz	1g SAR W/kg
802.11a	0	36	5180	0.219
802.11a	0	52	5260	0.154
802.11a	0	64	5320	0.169

SAR Limit	Conservative Measured SAR
1.6 W/kg 1gram Average Maximum	0.219 W/kg 1gram Average

SAR Plot for Conservative SAR Included in Appendix A.



Intel® WiFi-Link 5150 Series Network Connection with Yageo Antennas **802.11n Low Band MODE**

Power	16.54dBm
DUT Position	Underside
Separation	0mm
Antenna Type	IFA
Antenna Manufacturer	Yageo
Antenna Location	Left Hand Side
Power Mode	Battery
Tx Frequency	5180-5320MHz
Duty Cycle	100%
Epsilon	48.53
Sigma	5.27
Tissue Depth	15cm
Phantom Type	Universal
DUT Workstation Location	Centre
Device Positioner	Not Needed
Test Date	May 2009
Test Engineer	Maryna. N

Mode	Separation Distance (mm)	Channel	Frequency MHz	1g SAR W/kg
802.11n 20MHz	0	36	5180	0.135
802.11n 40MHz	0	38	5190	0.137

SAR Limit	Conservative Measured SAR
1.6 W/kg 1gram Average Maximum	0.137 W/kg 1gram Average

SAR Plot for Conservative SAR Included in Appendix A.



Intel® WiFi-Link 5150 Series Network Connection with Yageo Antennas **802.11a Mid Band MODE**

Power	16.45dBm
DUT Position	Underside
Separation	0mm
Antenna Type	IFA
Antenna Manufacturer	Yageo
Antenna Location	Left Hand Side
Power Mode	Battery
Tx Frequency	5500-5700MHz
Duty Cycle	100%
Epsilon	47.49
Sigma	5.87
Tissue Depth	15cm
Phantom Type	Universal
DUT Workstation Location	Centre
Device Positioner	Not Needed
Test Date	May 2009
Test Engineer	Maryna. N

Mode	Separation Distance (mm)	Channel	Frequency MHz	1g SAR W/kg
802.11a	0	100	5500	0.133
802.11a	0	120	5600	0.174
802.11a	0	140	5700	0.158

SAR Limit	Conservative Measured SAR
1.6 W/kg 1gram Average Maximum	0.174 W/kg 1gram Average

SAR Plot for Conservative SAR Included in Appendix A.



Intel® WiFi-Link 5150 Series Network Connection with Yageo Antennas **802.11n Mid Band MODE**

Power	16.54dBm
DUT Position	Underside
Separation	0mm
Antenna Type	IFA
Antenna Manufacturer	Yageo
Antenna Location	Left Hand Side
Power Mode	Battery
Tx Frequency	5500-5700MHz
Duty Cycle	100%
Epsilon	46.75
Sigma	5.84
Tissue Depth	15cm
Phantom Type	Universal
DUT Workstation Location	Centre
Device Positioner	Not Needed
Test Date	May 2009
Test Engineer	Maryna. N

Mode	Separation Distance (mm)	Channel	Frequency MHz	1g SAR W/kg
802.11n 20MHz	0	120	5600	0.163
802.11n 40MHz	0	190	5590	0.139

SAR Limit	Conservative Measured SAR
1.6 W/kg 1gram Average Maximum	0.163 W/kg 1gram Average

SAR Plot for Conservative SAR Included in Appendix A.



Intel® WiFi-Link 5150 Series Network Connection with Yageo Antennas **802.11a High Band MODE**

Power	16.45dBm
DUT Position	Underside
Separation	0mm
Antenna Type	IFA
Antenna Manufacturer	Yageo
Antenna Location	Left Hand Side
Power Mode	Battery
Tx Frequency	5745-5825MHz
Duty Cycle	100%
Epsilon	47.2
Sigma	6.25
Tissue Depth	15cm
Phantom Type	Universal
DUT Workstation Location	Centre
Device Positioner	Not Needed
Test Date	May 2009
Test Engineer	Maryna. N

Mode	Separation Distance (mm)	Channel	Frequency MHz	1g SAR W/kg
802.11a	0	149	5745	0.210
802.11a	0	157	5785	0.193
802.11a	0	165	5825	0.104

SAR Limit	Conservative Measured SAR
1.6 W/kg 1gram Average Maximum	0.210 W/kg 1gram Average

SAR Plot for Conservative SAR Included in Appendix A.



Intel® WiFi-Link 5150 Series Network Connection with Yageo Antennas **802.11n Mid Band MODE**

Power	16.54dBm
DUT Position	Underside
Separation	0mm
Antenna Type	IFA
Antenna Manufacturer	Yageo
Antenna Location	Left Hand Side
Power Mode	Battery
Tx Frequency	5500-5700MHz
Duty Cycle	100%
Epsilon	47.2
Sigma	6.25
Tissue Depth	15cm
Phantom Type	Universal
DUT Workstation Location	Centre
Device Positioner	Not Needed
Test Date	June 2009
Test Engineer	Maryna. N

Mode	Separation Distance (mm)	Channel	Frequency MHz	1g SAR W/kg
802.11n 20MHz	0	149	5745	0.266
802.11n 40MHz	0	151	5755	0.151

SAR Limit	Conservative Measured SAR
1.6 W/kg 1gram Average Maximum	0.266 W/kg 1gram Average

SAR Plot for Conservative SAR Included in Appendix A.



6.6 Additional Information

The Intel® WiFi-Link 5150 Series Network Connection card located inside a Dell laptop computer was tested at other locations to ensure a conservative SAR was assessed.

(See setup photos)



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Appendix A SAR Plots



SAR Test Report

Report Date : 20-May-2009
 By Operator : 123
 Measurement Date : 20-May-2009
 Starting Time : 20-May-2009 01:58:39 PM
 End Time : 20-May-2009 02:10:05 PM
 Scanning Time : 686 secs

Product Data
 Device Name : Tiger-Tyco-bottom
 Serial No. : 220-00754CN0J390M1296193C007
 Type : Other
 Model : TIR-E3-C2
 Frequency : 2450.00 MHz
 Max. Transmit Pwr : 1 W
 Drift Time : 0 min(s)
 Length : 105 mm
 Width : 100 mm
 Depth : 30.4 mm
 Antenna Type : Internal
 Orientation : Touch
 Power Drift-Start : 0.037 W/kg
 Power Drift-Finish : 0.037 W/kg
 Power Drift (%) : -0.902
 Picture : C:\alsas\bitmap\tiger-Tyco-bottom.bmp

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

Tissue Data
 Type : BODY
 Serial No. : 2450_B
 Frequency : 2450.00 MHz
 Last Calib. Date : 20-Apr-2009
 Temperature : 20.00 °C
 Ambient Temp. : 20.00 °C
 Humidity : 40.00 RH%
 Epsilon : 50.60 F/m
 Sigma : 1.93 S/m
 Density : 1000.00 kg/cu. m

Probe Data

Name : .E30
 Model : E30
 Type : E-Field Triangle
 Serial No. : 222
 Last Calib. Date : 16-Jan-2009
 Frequency : 2450.00 MHz
 Duty Cycle Factor: 1
 Conversion Factor: 4.75
 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

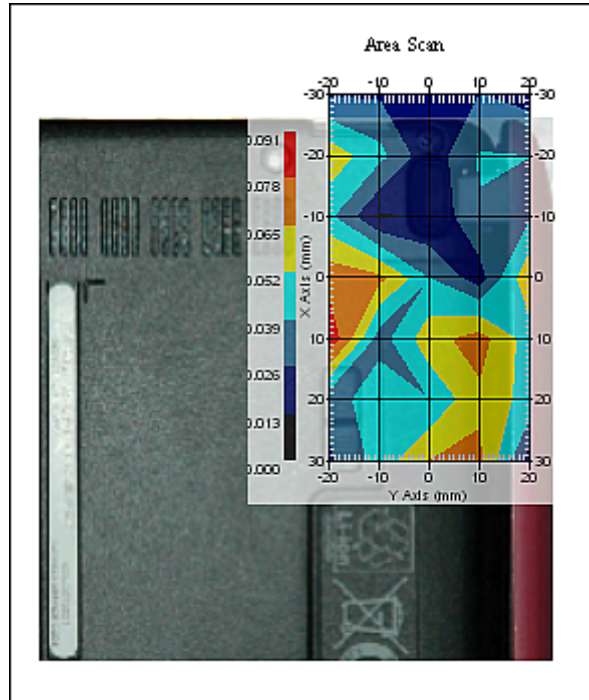
Measurement Data

Crest Factor : 1
 Scan Type : Complete
 Tissue Temp. : 21.00 °C
 Ambient Temp. : 22.00 °C
 Set-up Date : 20-May-2009
 Set-up Time : 1:58:07 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 : Low





1 gram SAR value : 0.193 W/kg
 Zoom Scan Peak SAR : 0.700 W/kg





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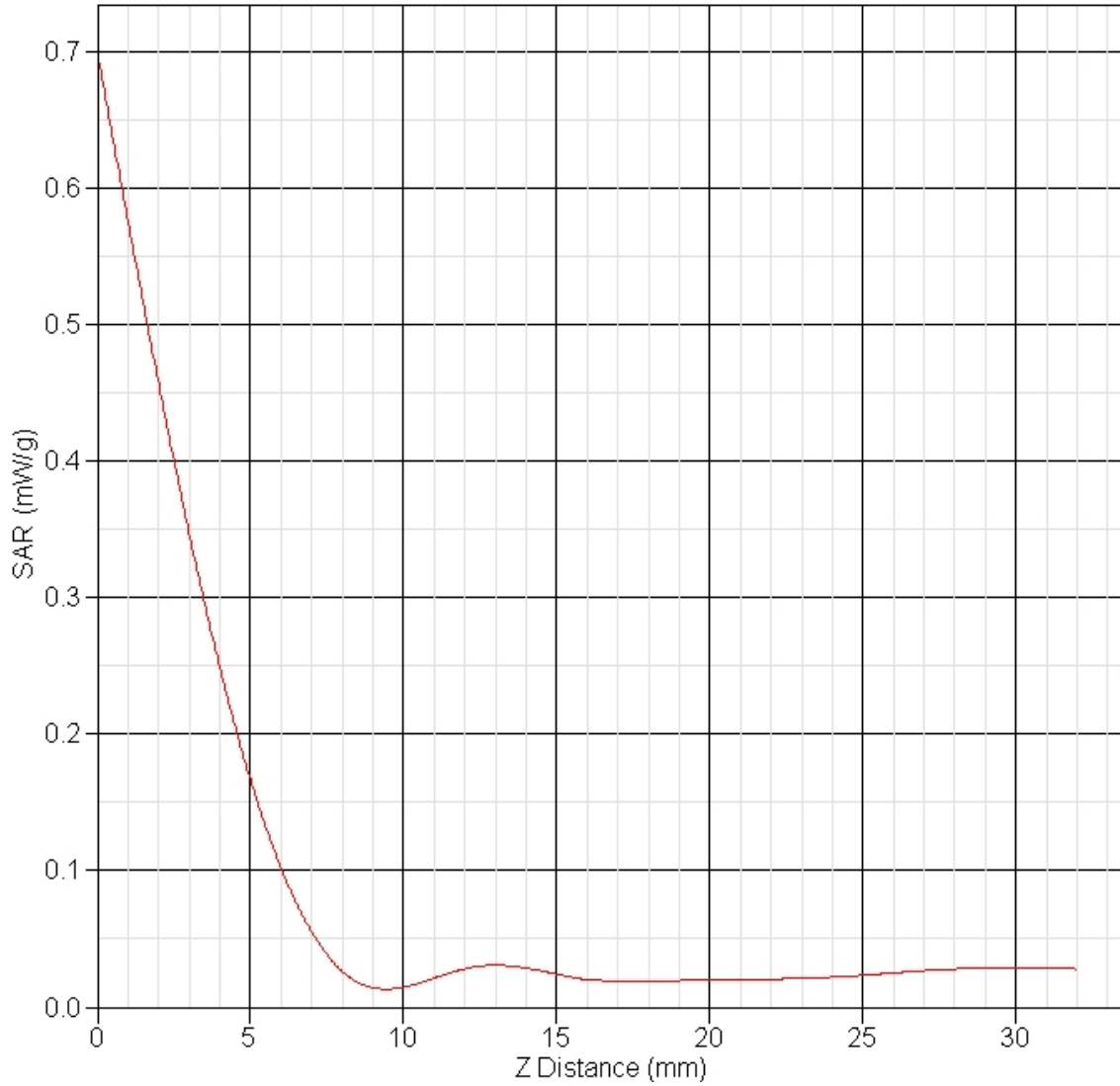
Exposure Assessment Measurement Uncertainty

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	0.9	rectangular	•3	1	1	0.9	0.9
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.)	1.0	normal	1	0.7	0.5	0.7	0.5
Liquid Permittivity (target)	5.0	rectangular	•3	0.6	0.5	1.7	1.4
Liquid Permittivity (meas.)	4.0	normal	1	0.6	0.5	2.4	2
Combined Uncertainty		RSS				9.7	8.2
Combined Uncertainty (coverage factor=2)		Normal (k=2)				19.4	16.4



SAR-Z Axis

at Hotspot x:26.16 y:-6.10



SAR Test Report

WiMAX DQ64_UQ4_12_12S_10M

Report Date : 19-May-2009
 By Operator : 123
 Measurement Date : 19-May-2009
 Starting Time : 19-May-2009 01:13:11 PM
 End Time : 19-May-2009 01:24:43 PM
 Scanning Time : 692 secs

Product Data
 Device Name : Tiger-Yageo-bottom
 Serial No. : 220-00754CN0J390M1296193C007
 Type : Other
 Model : TIR-E3-C2 - WiMAX
 Frequency : 2600.00 MHz
 Max. Transmit Pwr : 1 W
 Drift Time : 0 min(s)
 Length : 105 mm
 Width : 100 mm
 Depth : 30.4 mm
 Antenna Type : Internal
 Orientation : Touch
 Power Drift-Start : 0.081 W/kg
 Power Drift-Finish : 0.084 W/kg
 Power Drift (%) : 4.530
 Picture : C:\alsas\bitmap\tiger-Yageo-bottom.bmp

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

Tissue Data
 Type : BODY
 Serial No. : 2600-B
 Frequency : 2600.00 MHz
 Last Calib. Date : 19-May-2009
 Temperature : 20.00 °C
 Ambient Temp. : 20.00 °C
 Humidity : 50.00 RH%
 Epsilon : 51.54 F/m
 Sigma : 2.24 S/m
 Density : 1000.00 kg/cu. m

Probe Data

Name : .E30
 Model : E30
 Type : E-Field Triangle
 Serial No. : 222
 Last Calib. Date : 16-Jan-2009
 Frequency : 2600.00 MHz
 Duty Cycle Factor: 2.38
 Conversion Factor: 3.8
 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

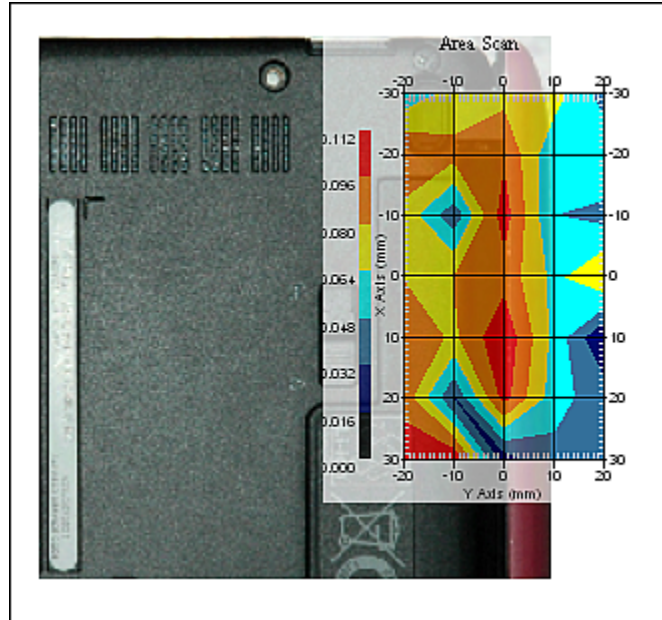
Measurement Data

Crest Factor : 1
 Scan Type : Complete
 Tissue Temp. : 21.00 °C
 Ambient Temp. : 23.00 °C
 Set-up Date : 19-May-2009
 Set-up Time : 1:12:43 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 : Low





Multipeak Detected

1 gram SAR value : 0.091 W/kg
Zoom Scan Peak SAR : 0.340 W/kg

1 gram SAR value : 0.064 W/kg
Zoom Scan Peak SAR : 0.320 W/kg

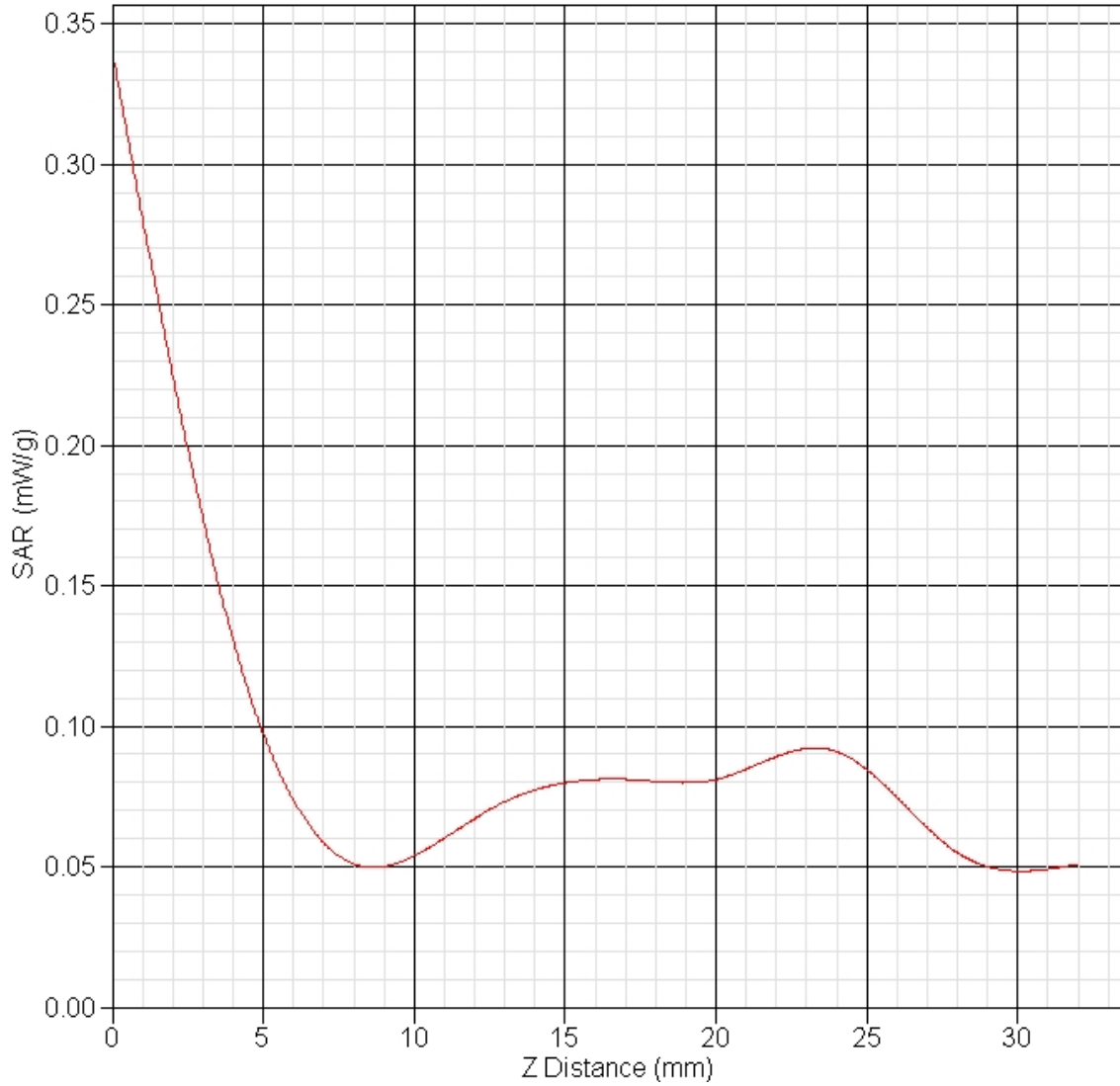


Exposure Assessment Measurement Uncertainty

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	4.5	rectangular	•3	1	1	2.1	2.1
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.)	1.4	normal	1	0.7	0.5	1.1	0.9
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	0.9	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:18.15 y:7.90



SAR Test Report

WiMAX DQ4_12_UQ16_34_5M

Report Date : 19-May-2009
 By Operator : 123
 Measurement Date : 19-May-2009
 Starting Time : 19-May-2009 12:52:30 PM
 End Time : 19-May-2009 01:04:01 PM
 Scanning Time : 691 secs

Product Data
 Device Name : Tiger-Yageo-bottom
 Serial No. : 220-00754CN0J390M1296193C007
 Type : Other
 Model : TIR-E3-C2 - WiMAX
 Frequency : 2600.00 MHz
 Max. Transmit Pwr : 1 W
 Drift Time : 0 min(s)
 Length : 105 mm
 Width : 100 mm
 Depth : 30.4 mm
 Antenna Type : Internal
 Orientation : Touch
 Power Drift-Start : 0.094 W/kg
 Power Drift-Finish : 0.097 W/kg
 Power Drift (%) : 3.231
 Picture : C:\alsas\bitmap\tiger-Yageo-bottom.bmp

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

Tissue Data
 Type : BODY
 Serial No. : 2600-B
 Frequency : 2600.00 MHz
 Last Calib. Date : 19-May-2009
 Temperature : 20.00 °C
 Ambient Temp. : 20.00 °C
 Humidity : 50.00 RH%
 Epsilon : 51.54 F/m
 Sigma : 2.24 S/m
 Density : 1000.00 kg/cu. m

Probe Data

Name : .E30
 Model : E30
 Type : E-Field Triangle
 Serial No. : 222
 Last Calib. Date : 16-Jan-2009
 Frequency : 2600.00 MHz
 Duty Cycle Factor: 2.72
 Conversion Factor: 3.8
 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

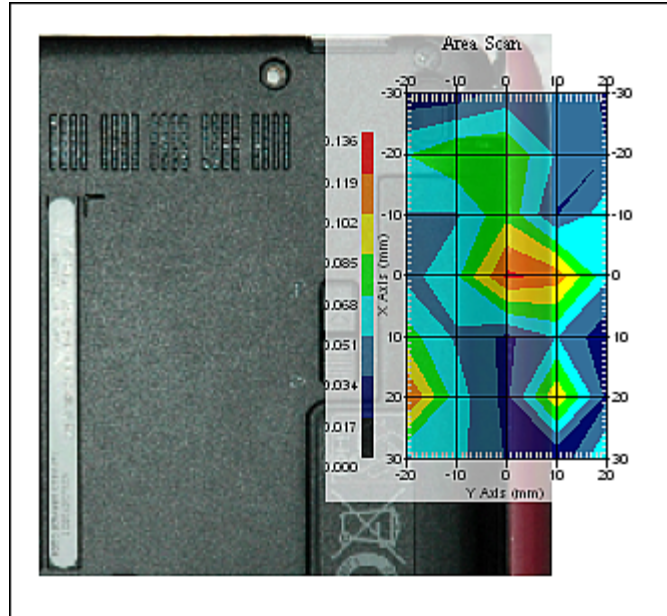
Measurement Data

Crest Factor : 1
 Scan Type : Complete
 Tissue Temp. : 21.00 °C
 Ambient Temp. : 23.00 °C
 Set-up Date : 19-May-2009
 Set-up Time : 12:31:13 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 : Low





1 gram SAR value : 0.075 W/kg
 Zoom Scan Peak SAR : 0.110 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	3.2	rectangular	•3	1	1	1.8	1.8
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	1.1	0.9
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	0.9	0.7
Combined Uncertainty		RSS				9.5	8.2
Combined Uncertainty (coverage factor=2)		Normal (k=2)				19	16.4



SAR Test Report

Report Date : 20-May-2009
 By Operator : 123
 Measurement Date : 20-May-2009
 Starting Time : 20-May-2009 01:04:07 PM
 End Time : 20-May-2009 02:15:37 PM
 Scanning Time : xxxx secs

Product Data

Device Name : Tiger-Tyco-bottom
 Serial No. : 220-00754CN0J390M1296193C007
 Type : Other
 Model : TIR-E3-C2
 Frequency : 5200.00 MHz
 Max. Transmit Pwr : 1 W
 Drift Time : 0 min(s)
 Length : 105 mm
 Width : 100 mm
 Depth : 30.4 mm
 Antenna Type : Internal
 Orientation : Touch
 Power Drift-Start : 0.080 W/kg
 Power Drift-Finish: 0.074 W/kg
 Power Drift (%) : -5.084
 Picture : C:\alsas\bitmap\tiger-Tyco-bottom.bmp

Phantom Data

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

Tissue Data

Type : BODY
 Serial No. : 5200-B
 Frequency : 5200.00 MHz
 Last Calib. Date : 11-May-2009
 Temperature : 20.00 °C
 Ambient Temp. : 20.00 °C
 Humidity : 40.00 RH%
 Epsilon : 48.53 F/m
 Sigma : 5.27 S/m
 Density : 1000.00 kg/cu. m

Probe Data

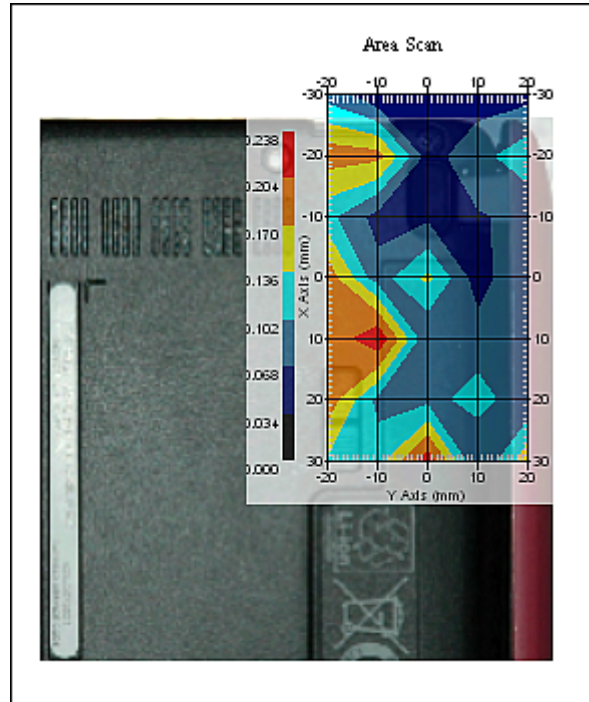
Name : .E30
 Model : E30
 Type : E-Field Triangle
 Serial No. : 222
 Last Calib. Date : 16-Jan-2009
 Frequency : 5200.00 MHz
 Duty Cycle Factor: 1
 Conversion Factor: 3.3
 Probe Sensitivity: 1.20 1.20 1.20 $\mu\text{V}/(\text{V}/\text{m})^2$
 Compression Point: 95.00 mV
 Offset : 1.56 mm

Measurement Data

Crest Factor : 1
 Scan Type : Complete
 Tissue Temp. : 21.00 °C
 Ambient Temp. : 22.00 °C
 Set-up Date : 20-May-2009
 Set-up Time : 1:03:37 PM
 Area Scan : 7x5x1 : Measurement x=10mm, y=10mm, z=2mm
 Zoom Scan : 9x9x17 : Measurement x=4mm, y=4mm, z=2mm

Other Data

DUT Position : Touch
 Separation : 0
 Channel : Low



1 gram SAR value : 0.219 W/kg
 Zoom Scan Peak SAR : 0.200 W/kg



SAR Test Report

Report Date : 08-May-2009
 By Operator : 123
 Measurement Date : 08-May-2009
 Starting Time : 08-May-2009 04:23:31 PM
 End Time : 08-May-2009 05:41:56 PM
 Scanning Time : xxxx secs

Product Data
 Device Name : Tiger-Yageo-back
 Serial No. : 220-00754CN0J390M1296193C007
 Type : Other
 Model : TIR-E3-C2
 Frequency : 5800.00 MHz
 Max. Transmit Pwr : 1 W
 Drift Time : 0 min(s)
 Length : 85 mm
 Width : 55 mm
 Depth : 30.4 mm
 Antenna Type : Internal
 Orientation : Touch
 Power Drift-Start : 0.046 W/kg
 Power Drift-Finish : 0.042 W/kg
 Power Drift (%) : -6.989
 Picture : C:\alsas\bitmap\tiger-Yageo-back.bmp

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

Tissue Data
 Type : BODY
 Serial No. : 5600-B
 Frequency : 5600.00 MHz
 Last Calib. Date : 04-May-2009
 Temperature : 20.00 °C
 Ambient Temp. : 20.00 °C
 Humidity : 50.00 RH%
 Epsilon : 47.59 F/m
 Sigma : 5.87 S/m
 Density : 1000.00 kg/cu. m

Probe Data

Name : .E30
 Model : E30
 Type : E-Field Triangle
 Serial No. : 222
 Last Calib. Date : 16-Jan-2009
 Frequency : 5600.00 MHz
 Duty Cycle Factor: 1
 Conversion Factor: 3.0
 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

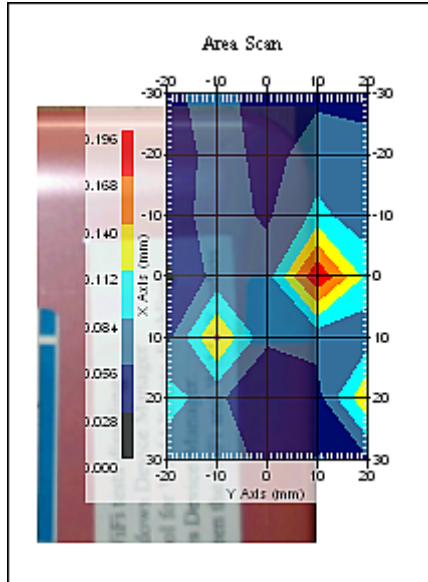
Measurement Data

Crest Factor : 1
 Scan Type : Complete
 Tissue Temp. : 23.00 °C
 Ambient Temp. : 21.00 °C
 Set-up Date : 08-May-2009
 Set-up Time : 4:23:02 PM
 Area Scan : 7x5x1 : Measurement x=10mm, y=10mm, z=2mm
 Zoom Scan : 9x9x17 : Measurement x=4mm, y=4mm, z=2mm

Other Data

DUT Position : Touch
 Separation : 0
 Channel : High





1 gram SAR value : 0.121 W/kg
 Zoom Scan Peak SAR : 0.420 W/kg



SAR Test Report

Report Date : 11-May-2009
 By Operator : 123
 Measurement Date : 11-May-2009
 Starting Time : 11-May-2009 02:52:11 PM
 End Time : 11-May-2009 04:09:55 PM
 Scanning Time : xxxx secs

Product Data
 Device Name : Tiger-Yageo-back
 Serial No. : 220-00754CN0J390M1296193C007
 Type : Other
 Model : TIR-E3-C2
 Frequency : 5800.00 MHz
 Max. Transmit Pwr : 1 W
 Drift Time : 0 min(s)
 Length : 85 mm
 Width : 55 mm
 Depth : 30.4 mm
 Antenna Type : Internal
 Orientation : Touch
 Power Drift-Start : 0.164 W/kg
 Power Drift-Finish : 0.158 W/kg
 Power Drift (%) : -3.658
 Picture : C:\alsas\bitmap\tiger-Yageo-back.bmp

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

Tissue Data
 Type : BODY
 Serial No. : 5800-B
 Frequency : 5800.00 MHz
 Last Calib. Date : 11-May-2009
 Temperature : 20.00 °C
 Ambient Temp. : 20.00 °C
 Humidity : 50.00 RH%
 Epsilon : 47.20 F/m
 Sigma : 6.25 S/m
 Density : 1000.00 kg/cu. m

Probe Data

Name : .E30
 Model : E30
 Type : E-Field Triangle
 Serial No. : 222
 Last Calib. Date : 16-Jan-2009
 Frequency : 5800.00 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

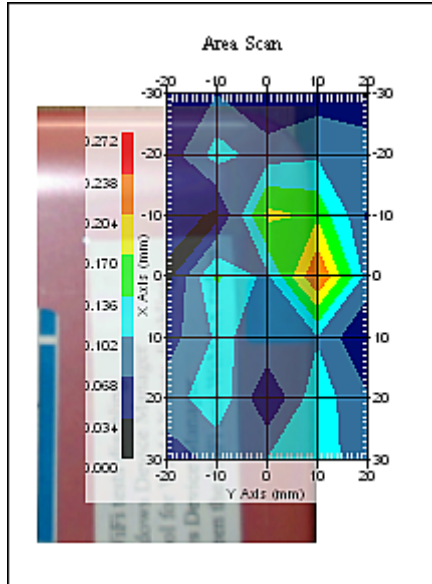
Measurement Data

Crest Factor : 1
 Scan Type : Complete
 Tissue Temp. : 21.00 °C
 Ambient Temp. : 23.00 °C
 Set-up Date : 11-May-2009
 Set-up Time : 2:51:30 PM
 Area Scan : 7x5x1 : Measurement x=10mm, y=10mm, z=2mm
 Zoom Scan : 9x9x17 : Measurement x=4mm, y=4mm, z=2mm

Other Data

DUT Position : Touch
 Separation : 0
 Channel : Low





1 gram SAR value : 0.266 W/kg
 Zoom Scan Peak SAR : 0.890 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	3.7	rectangular	•3	1	1	1.9	1.9
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.)	1.5	normal	1	0.7	0.5	1.1	0.8
Liquid Permittivity (target)	5.0	rectangular	•3	0.6	0.5	1.7	1.4
Liquid Permittivity (meas.)	4.6	normal	1	0.6	0.5	2.7	2.3
Combined Uncertainty		RSS				11.4	9.8
Combined Uncertainty (coverage factor=2)		Normal (k=2)				22.8	19.6



SAR-Z Axis at Hotspot x:0.15 y:4.93

