



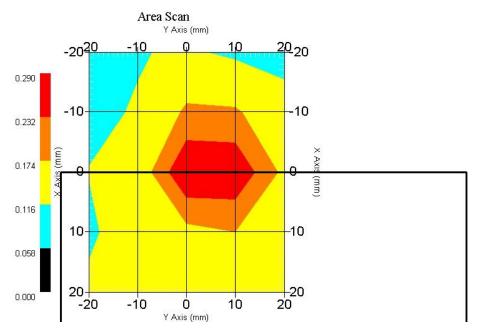
Measurement Data Crest Factor : 1

Scan Type : Complete
Tissue Temp. : 20.00 °C
Ambient Temp. : 23.00 °C
Set-up Date : 05-Sep-2006
Set-up Time : 8:58:01 AM

Area Scan : 5x5x1 : Measurement $x=10\,\text{mm}$, $y=10\,\text{mm}$, $z=4\,\text{mm}$ Zoom Scan : 5x5x8 : Measurement $x=8\,\text{mm}$, $y=8\,\text{mm}$, $z=4\,\text{mm}$

Other Data

DUT Position : Touch Separation : 0 Channel : Mid - 157



1 gram SAR value : 0.267 W/kg 10 gram SAR value : 0.151 W/kg Area Scan Peak SAR : 0.288 W/kg Zoom Scan Peak SAR : 0.690 W/kg





SAR Test Report

By Operator : Jay

Measurement Date : 05-Sep-2006

Starting Time : 05-Sep-2006 02:20:38 PM End Time : 05-Sep-2006 03:17:00 PM Scanning Time : 3382 secs

Product Data

Device Name : OQO
Serial No. : Eng 028
Type : Other
Model : 02 : computer
Frequency : 5785.00 MHz

Max. Transmit Pwr : 0.063 W Drift Time : 0 min(s) Length : 144 mm
Width : 85 mm
Depth : 30 mm
Antenna Type : Internal
Orientation : Touch Power Drift-Start: 0.128 W/kg Power Drift-Finish: 0.125 W/kg Power Drift (%) : -2.344

Phantom Data

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

Tissue Data
Type : BODY
Serial No. : 5800
Frequency : 5785.00 MHz

Last Calib. Date: 05-Sep-2006 Temperature : 20.00 °C

Ambient Temp. : 23.00 °C

Humidity : 50.00 RH%

Epsilon : 48.73 F/m

Sigma : 5.71 S/m

Density : 1000.00 kg/cu. m

Probe Data
Name : RFEL 217
Model : E020
Type : E-Field Triangle
Serial No. : 217

Last Calib. Date: 30-May-2006 Frequency : 5800.00 MHz

Duty Cycle Factor: 1 Conversion Factor: 6.7

Probe Sensitivity: 1.20 1.20 1.20 $\mu V/\left(V/m\right)^2$ Compression Point: 95.00 mV

: 1.56 mm Offset





Measurement Data Crest Factor : 1

Scan Type : Complete
Tissue Temp. : 20.00 °C
Ambient Temp. : 23.00 °C
Set-up Date : 05-Sep-2006
Set-up Time : 8:58:01 AM

Area Scan : 6x7x1 : 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 - 157

Area Scan Y Axis (mm) -30 1ρ 20 -30 -30 0.16 0.14 -20 -20 0.12 0.10 (mm) 0.08 0.08 0 0 0.0 10 -10 0.02 0.00 -30 -20 -10 20 30 Y Axis (mm)

1 gram SAR value : 0.161 W/kg 10 gram SAR value : 0.184 W/kg Area Scan Peak SAR : 0.143 W/kg Zoom Scan Peak SAR : 0.170 W/kg





SAR Test Report

By Operator : Jay

Measurement Date : 05-Sep-2006

Starting Time : 05-Sep-2006 04:53:17 PM End Time : 05-Sep-2006 05:06:26 PM Scanning Time : 789 secs

Product Data

Device Name : OQO
Serial No. : Eng 028
Type : Other
Model : 02 : computer
Frequency : 5785.00 MHz

Max. Transmit Pwr : 0.063 W Drift Time : 0 min(s) Length : 144 mm
Width : 85 mm
Depth : 30 mm
Antenna Type : Internal
Orientation : Touch Power Drift-Start: 0.513 W/kg Power Drift-Finish: 0.493 W/kg Power Drift (%) : -3.899

Phantom Data

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

Tissue Data
Type : BODY
Serial No. : 5800
Frequency : 5785.00 MHz

Last Calib. Date: 05-Sep-2006 Temperature : 20.00 °C

Ambient Temp. : 23.00 °C

Humidity : 50.00 RH%

Epsilon : 48.73 F/m

Sigma : 5.71 S/m

Density : 1000.00 kg/cu. m

Probe Data
Name : RFEL 217
Model : E020
Type : E-Field Triangle
Serial No. : 217

Last Calib. Date: 30-May-2006 Frequency : 5800.00 MHz

Duty Cycle Factor: 1 Conversion Factor: 6.7

Probe Sensitivity: 1.20 1.20 1.20 $\mu V/\left(V/m\right)^2$ Compression Point: 95.00 mV

: 1.56 mm Offset





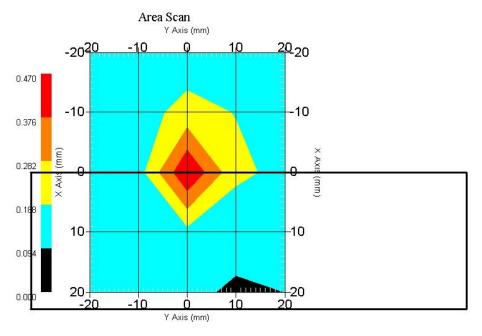
Measurement Data Crest Factor : 1

Scan Type : Complete
Tissue Temp. : 20.00 °C
Ambient Temp. : 23.00 °C
Set-up Date : 05-Sep-2006
Set-up Time : 8:58:01 AM

Area Scan : 5x5x1 : Measurement $x=10\,\text{mm}$, $y=10\,\text{mm}$, $z=4\,\text{mm}$ Zoom Scan : 5x5x8 : Measurement $x=8\,\text{mm}$, $y=8\,\text{mm}$, $z=4\,\text{mm}$

Other Data

DUT Position : Touch Separation : 0 Channel : Mid - 157



1 gram SAR value : 0.372 W/kg 10 gram SAR value : 0.166 W/kg Area Scan Peak SAR : 0.469 W/kg Zoom Scan Peak SAR : 1.150 W/kg



Appendix C – SAR Test Setup Photos



System Body Configuration



Body Tissue Depth





Front Standard Battery Closed Front View



Front Standard Battery Closed Side View



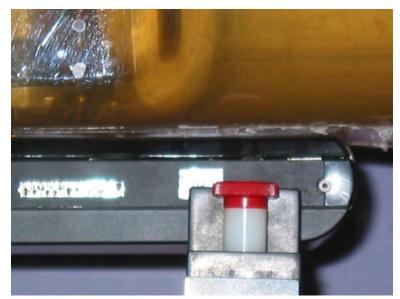


Front Standard Battery Opened Front View



Front Standard Battery Opened Side View



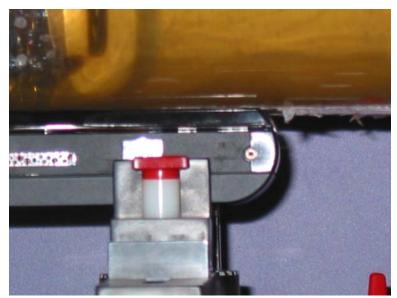


Front Extended Battery Closed Front View

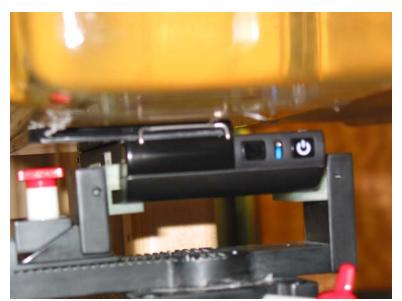


Front Extended Battery Closed Side View





Front Extended Battery Opened Front View



Front Extended Battery Opened Side View





Back Standard Battery Closed Front View



Back Standard Battery Closed Side View





Back Standard Battery Opened Front View



Back Standard Battery Opened Side View



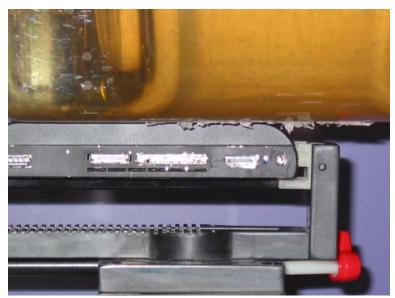


Back Extended Battery Closed Front View



Back Extended Battery Closed Side View





Back Extended Battery Opened Front View



Back Extended Battery Opened Side View





End Standard Battery Closed Front View



End Standard Battery Closed Side View





End Standard Battery Opened Front View



End Standard Battery Opened Side View





End Extended Battery Closed Front View



End Extended Battery Closed Side View





End Extended Battery Opened Front View



End Extended Battery Opened Side View





Unit Front Closed



Unit Front Opened



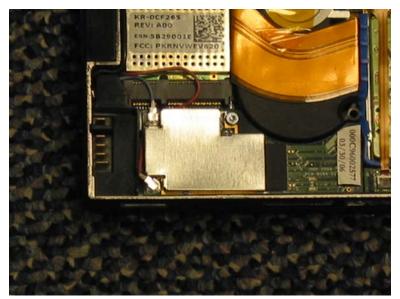


Unit Back w/o Battery



Unit Back w/o Cover





RF Module



Standard Battery Front





Extended Battery Front



Appendix D – Probe Calibration Data Sheets

NCL CALIBRATION LABORATORIES

Calibration File No.: CP-685

Client.: RFEL

CERTIFICATE OF CALIBRATION

It is certified that the equipment identified below has been calibrated in the **NCL CALIBRATION LABORATORIES** by qualified personnel following recognized procedures and using transfer standards traceable to NRC/NIST.

Equipment: Miniature Isotropic RF Probe 2450 MHz

BODY Calibration

Manufacturer: APREL Laboratories

Model No.: E-020 Serial No.: 217

Calibration Procedure: SSI/DRB-TP-D01-032-E020-V2

Project No: RFEB-E020CAL-5232

Calibrated: 30th May 2006 Released on: 2nd June 2006

APREL Laboratories Certified Under Laboratory 48 of SCC

This Calibration Certificate is Incomplete Unless Accompanied with the Calibration Results Summary

Released By:

NCL CALIBRATION LABORATORIES

51 SPECTRUM WAY NEPEAN, ONTARIO CANADA K2R 1E6 Division of APREL Lab. TEL: (613) 820-4988 FAX: (613) 820-4161

Introduction

This Calibration Report reproduces the results of the calibration performed in line with the SSI/DRB-TP-D01-032-E020-V2 E-Field Probe Calibration Procedure. The results contained within this report are for APREL E-Field Probe E-020 217.

References

SSI/DRB-TP-D01-032-E020-V2 E-Field Probe Calibration Procedure

IEEE 1528 "Recommended Practice for Determining the Peak Spatial-Average Specific Absorption Rate (SAR) in the Human Body Due to Wireless Communications Devices: Experimental Techniques"

SSI-TP-011 Tissue Calibration Procedure

IEC 62209 "Human exposure to radio frequency fields from hand-held and body-mounted wireless communication devices – Human models, instrumentation, and procedures –Part 1 & 2: Procedure to determine the Specific Absorption Rate (SAR) for hand-held devices used in close proximity of the ear (frequency range of 300 MHz to 3 GHz)"

IEEE 1309 Draft Standard for Calibration of Electromagnetic Field Sensors and Probes, Excluding Antennas, from 9kHz to 40GHz

Conditions

Probe 217 was a re-calibration.

Ambient Temperature of the Laboratory: 2

22 °C +/- 0.5°C

Temperature of the Tissue:

21 °C +/- 0.5°C

We the undersigned attest that to the best of our knowledge the calibration of this probe has been accurately conducted and that all information contained within this report has been reviewed for accuracy.

Stuart Nicol

Eddie Payapaya

Calibration Results Summary

Probe Type: E-Field Probe E-020

Serial Number: 217

Frequency: 2450 MHz

Sensor Offset: 1.56 mm

Sensor Length: 2.5 mm

Tip Enclosure: Ertalyte*

Tip Diameter: <5 mm

Tip Length: 60 mm

Total Length: 290 mm

Sensitivity in Air

Diode Compression Point: 95 mV

^{*}Resistive to recommended tissue recipes per IEEE-1528

Sensitivity in Body Tissue

Frequency: 2450 MHz

Epsilon: 52.7 (+/-5%) **Sigma:** 1.95 S/m (+/-10%)

ConvF

Channel X: 3.61

Channel Y: 3.61

Channel Z: 3.61

Tissue sensitivity values were calculated using the load impedance of the APREL Laboratories Daq-Paq.

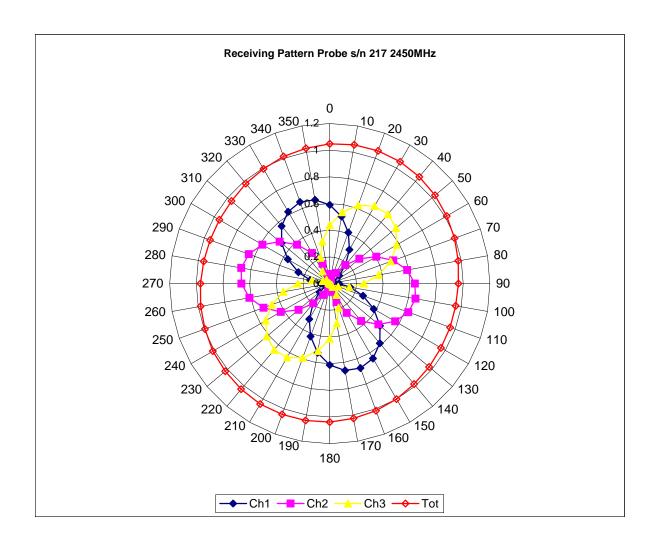
Boundary Effect:

Uncertainty resulting from the boundary effect is less than 2% for the distance between the tip of the probe and the tissue boundary, when less than 2.44mm.

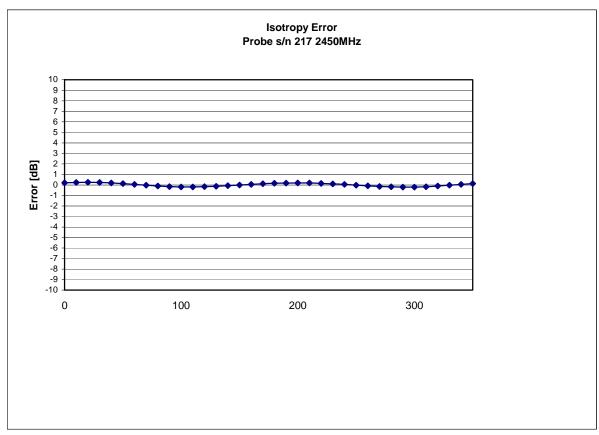
Spatial Resolution:

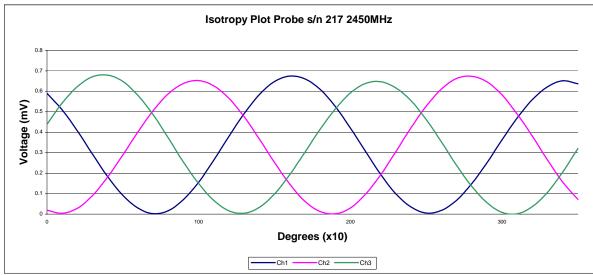
The measured probe tip diameter is 5 mm (+/- 0.01 mm) and therefore meets the requirements of SSI/DRB-TP-D01-032 for spatial resolution.

Receiving Pattern 2450 MHz (Air)



Isotropy Error 2450 MHz (Air)

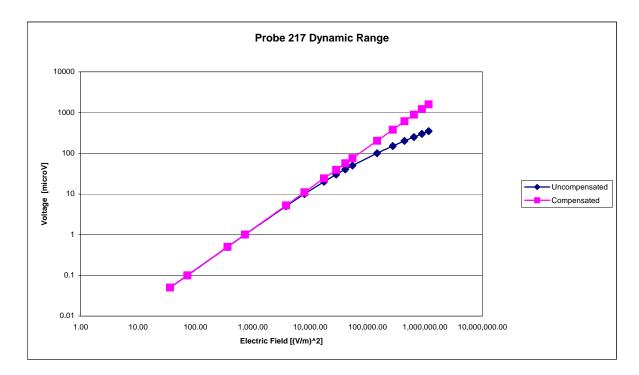




Isotropicity Tissue:

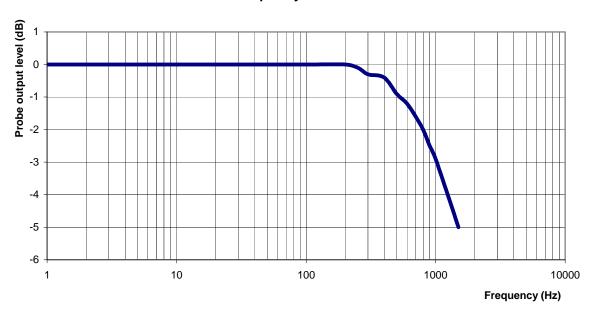
0.10 dB

Dynamic Range



Video Bandwidth

Probe Frequency Characteristics



Video Bandwidth at 500 Hz 1 dB Video Bandwidth at 1.02 KHz: 3 dB

Conversion Factor Uncertainty Assessment

Sensitivity in Body Tissue

Frequency: 2450 MHz

Epsilon: 52.7 (+/-5%) **Sigma:** 1.95 S/m (+/-10%)

ConvF

Channel X: 3.61 7%(K=2)

Channel Y: 3.61 7%(K=2)

Channel Z: 3.61 7%(K=2)

To minimize the uncertainty calculation all tissue sensitivity values were calculated using a load impedance of 5 M Ω .

Boundary Effect:

For a distance of 2.5mm the evaluated uncertainty (increase in the probe sensitivity) is less than 2%.

Test Equipment

The test equipment used during Probe Calibration, manufacturer, model number and, current calibration status are listed and located on the main APREL server R:\NCL\Calibration Equipment\Instrument List May 2006.

NCL CALIBRATION LABORATORIES

Calibration File No.: CP-686

Client.: RFEL

CERTIFICATE OF CALIBRATION

It is certified that the equipment identified below has been calibrated in the NCL CALIBRATION LABORATORIES by qualified personnel following recognized procedures and using transfer standards traceable to NRC/NIST.

Equipment: Miniature Isotropic RF Probe 5200 MHz

Manufacturer: APREL Laboratories

Model No.: E-020

Serial No.: 217

Calibration Procedure: SSI/DRB-TP-D01-032-E020-V2 Project No: RFEB-E020CAL-5232

> Calibrated: 1st June 2006 Released on: 2nd June 2006

APREL Laboratories Certified Under Laboratory 48 of SCC

This Calibration Certificate is Incomplete Unless Accompanied with the Calibration Results Summary

Released By:

NCL CALIBRATION LABORATORIES

51 SPECTRUM WAY NEPEAN, ONTARIO CANADA K2R 1E6 Division of APREL Lab. TEL: (613) 820-4988 FAX: (613) 820-4161

Introduction

This Calibration Report reproduces the results of the calibration performed in line with the SSI/DRB-TP-D01-032-E020-V2 E-Field Probe Calibration Procedure. The results contained within this report are for APREL E-Field Probe E-020 217.

References

SSI/DRB-TP-D01-032-E020-V2 E-Field Probe Calibration Procedure SSI-TP-011 Tissue Calibration Procedure

IEC 62209 "Human exposure to radio frequency fields from hand-held and body-mounted wireless communication devices – Human models, instrumentation, and procedures –Part 1 & 2: Procedure to determine the Specific Absorption Rate (SAR) for hand-held devices used in close proximity of the ear (frequency range of 300 MHz to 3 GHz)"

IEEE 1309 Draft Standard for Calibration of Electromagnetic Field Sensors and Probes, Excluding Antennas, from 9kHz to 40GHz

Conditions

Probe 217 was a re-calibration.

Ambient Temperature of the Laboratory: $22 \,^{\circ}\text{C} +/- 0.5 \,^{\circ}\text{C}$ Temperature of the Tissue: $21 \,^{\circ}\text{C} +/- 0.5 \,^{\circ}\text{C}$

We the undersigned attest that to the best of our knowledge the calibration of this probe has been accurately conducted and that all information contained within this report has been reviewed for accuracy.

Stuart Nicol

Eddie Payapaya

Calibration Results Summary

Probe Type: E-Field Probe E-020

Serial Number: 217

Frequency: 5200 MHz

Sensor Offset: 1.56 mm

Sensor Length: 2.5 mm

Tip Enclosure: Ertalyte*

Tip Diameter: <5 mm

Tip Length: 60 mm

Total Length: 290 mm

Sensitivity in Air

Diode Compression Point: 95 mV

^{*}Resistive to recommended tissue recipes per IEEE-1528

Sensitivity in Head Tissue

Frequency: 5200 MHz

Epsilon: 36.0 (+/-5%) **Sigma:** 4.65 S/m (+/-10%)

ConvF

Channel X: 6.5

Channel Y: 6.5

Channel Z: 6.5

Tissue sensitivity values were calculated using the load impedance of the APREL Laboratories Daq-Paq.

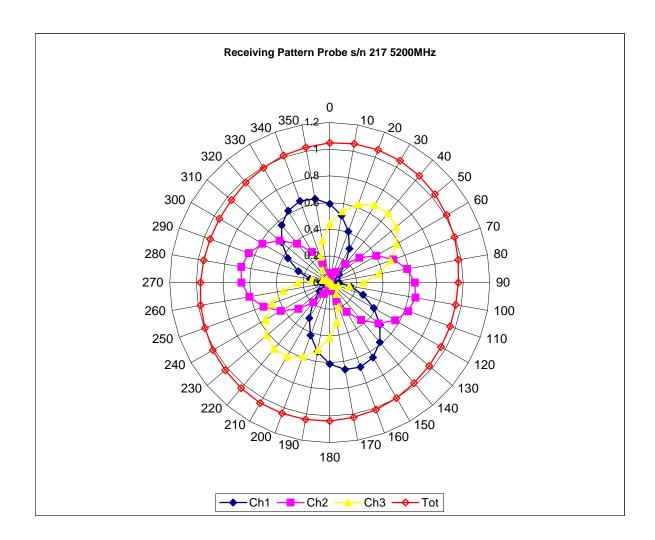
Boundary Effect:

Uncertainty resulting from the boundary effect is less than 2% for the distance between the tip of the probe and the tissue boundary, when less than 2.44mm.

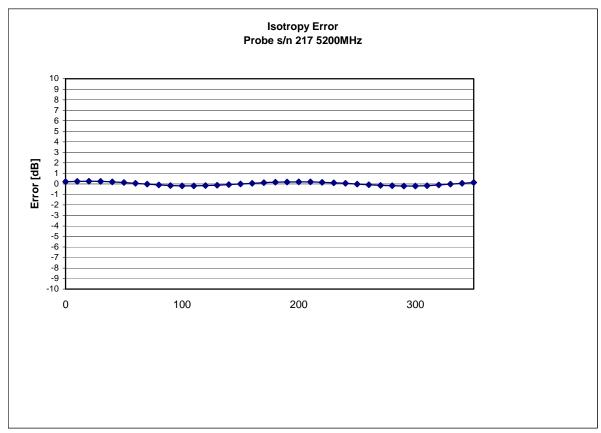
Spatial Resolution:

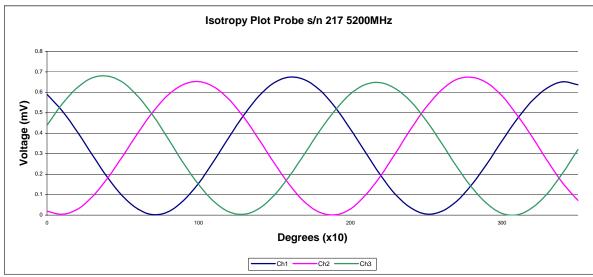
The measured probe tip diameter is 5 mm (+/- 0.01 mm) and therefore meets the requirements of SSI/DRB-TP-D01-032 for spatial resolution.

Receiving Pattern 5200 MHz (Air)



Isotropy Error 5200 MHz (Air)

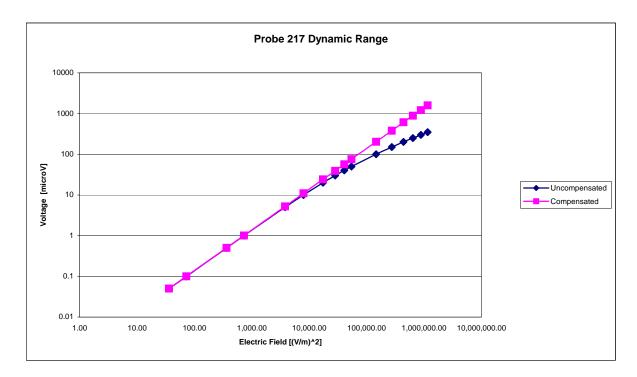




Isotropicity Tissue:

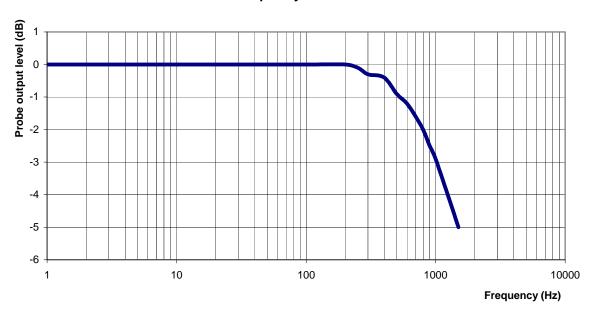
0.10 dB

Dynamic Range



Video Bandwidth

Probe Frequency Characteristics



Video Bandwidth at 500 Hz 1 dB Video Bandwidth at 1.02 KHz: 3 dB

Conversion Factor Uncertainty Assessment

Sensitivity in Head Tissue

Frequency: 5200 MHz

Epsilon: 36.0 (+/-5%) **Sigma:** 4.65 S/m (+/-10%)

ConvF

Channel X: 6.5 7%(K=2)

Channel Y: 6.5 7%(K=2)

Channel Z: 6.5 7%(K=2)

To minimize the uncertainty calculation all tissue sensitivity values were calculated using a load impedance of 5 M Ω .

Boundary Effect:

For a distance of 2.5mm the evaluated uncertainty (increase in the probe sensitivity) is less than 2%.

Test Equipment

The test equipment used during Probe Calibration, manufacturer, model number and, current calibration status are listed and located on the main APREL server R:\NCL\Calibration Equipment\Instrument List May 2006.

NCL CALIBRATION LABORATORIES

Calibration File No.: CP-687

Client.: RFEL

CERTIFICATE OF CALIBRATION

It is certified that the equipment identified below has been calibrated in the **NCL CALIBRATION LABORATORIES** by qualified personnel following recognized procedures and using transfer standards traceable to NRC/NIST.

Equipment: Miniature Isotropic RF Probe 5600 MHz

Manufacturer: APREL Laboratories

Model No.: E-020

Serial No.: 217

Calibration Procedure: SSI/DRB-TP-D01-032-E020-V2 Project No: RFEB-E020CAL-5232

> Calibrated: 2nd June 2006 Released on: 2nd June 2006

APREL Laboratories Certified Under Laboratory 48 of SCC

This Calibration Certificate is Incomplete Unless Accompanied with the Calibration Results Summary

Released By:

NCL CALIBRATION LABORATORIES

51 SPECTRUM WAY NEPEAN, ONTARIO CANADA K2R 1E6 Division of APREL Lab. TEL: (613) 820-4988 FAX: (613) 820-4161

Introduction

This Calibration Report reproduces the results of the calibration performed in line with the SSI/DRB-TP-D01-032-E020-V2 E-Field Probe Calibration Procedure. The results contained within this report are for APREL E-Field Probe E-020 217.

References

SSI/DRB-TP-D01-032-E020-V2 E-Field Probe Calibration Procedure SSI-TP-011 Tissue Calibration Procedure

IEC 62209 "Human exposure to radio frequency fields from hand-held and body-mounted wireless communication devices – Human models, instrumentation, and procedures –Part 1 & 2: Procedure to determine the Specific Absorption Rate (SAR) for hand-held devices used in close proximity of the ear (frequency range of 300 MHz to 3 GHz)"

IEEE 1309 Draft Standard for Calibration of Electromagnetic Field Sensors and Probes, Excluding Antennas, from 9kHz to 40GHz

Conditions

Probe 217 was a re-calibration.

Ambient Temperature of the Laboratory: $22 \,^{\circ}\text{C} +/- 0.5 \,^{\circ}\text{C}$ Temperature of the Tissue: $21 \,^{\circ}\text{C} +/- 0.5 \,^{\circ}\text{C}$

We the undersigned attest that to the best of our knowledge the calibration of this probe has been accurately conducted and that all information contained within this report has been reviewed for accuracy.

Stuart Nicol

Eddie Payapaya

Calibration Results Summary

Probe Type: E-Field Probe E-020

Serial Number: 217

Frequency: 5600 MHz

Sensor Offset: 1.56 mm

Sensor Length: 2.5 mm

Tip Enclosure: Ertalyte*

Tip Diameter: <5 mm

Tip Length: 60 mm

Total Length: 290 mm

Sensitivity in Air

Diode Compression Point: 95 mV

^{*}Resistive to recommended tissue recipes per IEEE-1528

Sensitivity in Head Tissue

Frequency: 5600 MHz

Epsilon: 35.5 (+/-5%) **Sigma:** 5.06 S/m (+/-10%)

ConvF

Channel X: 6.6

Channel Y: 6.6

Channel Z: 6.6

Tissue sensitivity values were calculated using the load impedance of the APREL Laboratories Daq-Paq.

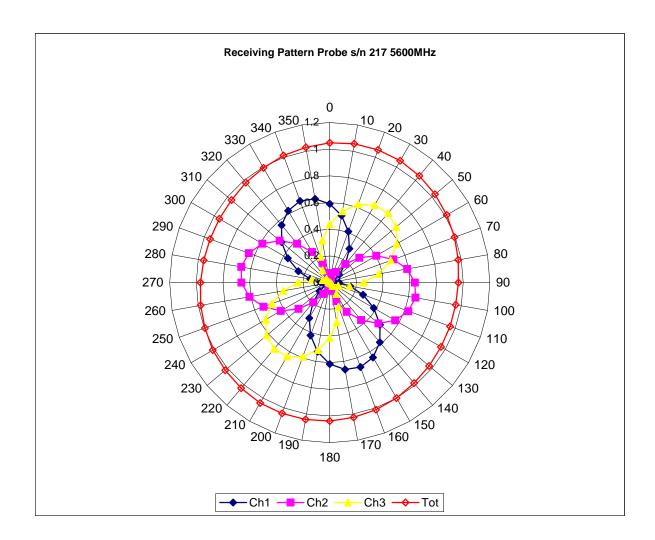
Boundary Effect:

Uncertainty resulting from the boundary effect is less than 2% for the distance between the tip of the probe and the tissue boundary, when less than 2.44mm.

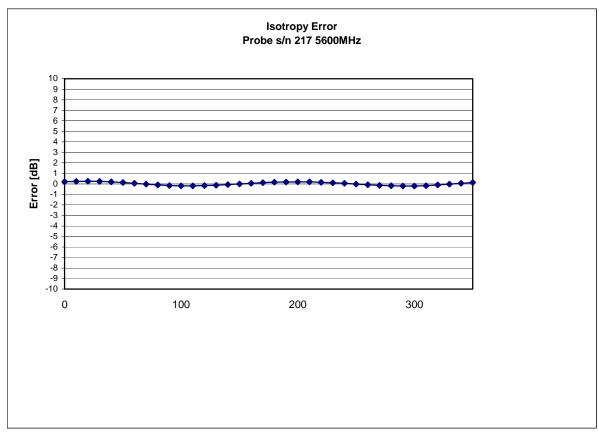
Spatial Resolution:

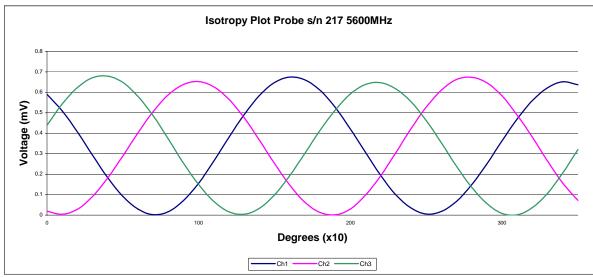
The measured probe tip diameter is 5 mm (+/- 0.01 mm) and therefore meets the requirements of SSI/DRB-TP-D01-032 for spatial resolution.

Receiving Pattern 5600 MHz (Air)



Isotropy Error 5600 MHz (Air)

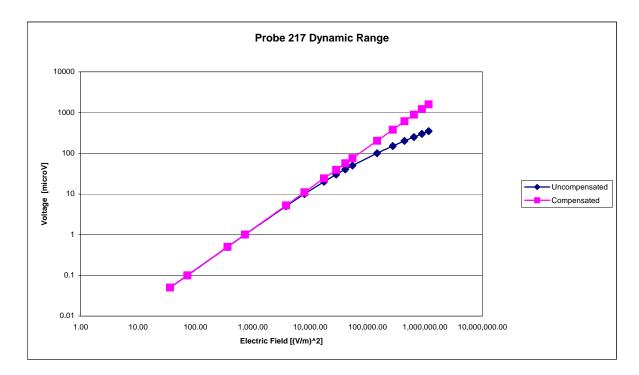




Isotropicity Tissue:

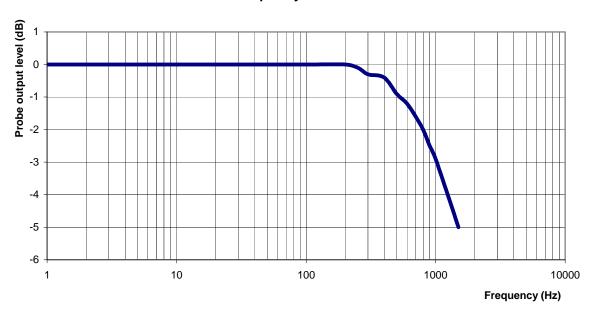
0.10 dB

Dynamic Range



Video Bandwidth

Probe Frequency Characteristics



Video Bandwidth at 500 Hz 1 dB Video Bandwidth at 1.02 KHz: 3 dB

Conversion Factor Uncertainty Assessment

Sensitivity in Head Tissue

Frequency: 5600 MHz

Epsilon: 35.5 (+/-5%) **Sigma:** 5.06 S/m (+/-10%)

ConvF

Channel X: 6.6 7%(K=2)

Channel Y: 6.6 7%(K=2)

Channel Z: 6.6 7%(K=2)

To minimize the uncertainty calculation all tissue sensitivity values were calculated using a load impedance of 5 M Ω .

Boundary Effect:

For a distance of 2.5mm the evaluated uncertainty (increase in the probe sensitivity) is less than 2%.

Test Equipment

The test equipment used during Probe Calibration, manufacturer, model number and, current calibration status are listed and located on the main APREL server R:\NCL\Calibration Equipment\Instrument List May 2006.

NCL CALIBRATION LABORATORIES

Calibration File No.: CP-688

Client.: RFEL

CERTIFICATE OF CALIBRATION

It is certified that the equipment identified below has been calibrated in the **NCL CALIBRATION LABORATORIES** by qualified personnel following recognized procedures and using transfer standards traceable to NRC/NIST.

Equipment: Miniature Isotropic RF Probe 5800 MHz

Manufacturer: APREL Laboratories

Model No.: E-020

Serial No.: 217

Calibration Procedure: SSI/DRB-TP-D01-032-E020-V2 Project No: RFEB-E020CAL-5232

> Calibrated: 1st June 2006 Released on: 2nd June 2006

APREL Laboratories Certified Under Laboratory 48 of SCC

This Calibration Certificate is Incomplete Unless Accompanied with the Calibration Results Summary

Released By:

NCL CALIBRATION LABORATORIES

51 SPECTRUM WAY NEPEAN, ONTARIO CANADA K2R 1E6 Division of APREL Lab. TEL: (613) 820-4988 FAX: (613) 820-4161

Introduction

This Calibration Report reproduces the results of the calibration performed in line with the SSI/DRB-TP-D01-032-E020-V2 E-Field Probe Calibration Procedure. The results contained within this report are for APREL E-Field Probe E-020 217.

References

SSI/DRB-TP-D01-032-E020-V2 E-Field Probe Calibration Procedure SSI-TP-011 Tissue Calibration Procedure

IEC 62209 "Human exposure to radio frequency fields from hand-held and body-mounted wireless communication devices – Human models, instrumentation, and procedures –Part 1 & 2: Procedure to determine the Specific Absorption Rate (SAR) for hand-held devices used in close proximity of the ear (frequency range of 300 MHz to 3 GHz)"

IEEE 1309 Draft Standard for Calibration of Electromagnetic Field Sensors and Probes, Excluding Antennas, from 9kHz to 40GHz

Conditions

Probe 217 was a re-calibration.

Ambient Temperature of the Laboratory: $22 \,^{\circ}\text{C} +/- 0.5 \,^{\circ}\text{C}$ Temperature of the Tissue: $21 \,^{\circ}\text{C} +/- 0.5 \,^{\circ}\text{C}$

We the undersigned attest that to the best of our knowledge the calibration of this probe has been accurately conducted and that all information contained within this report has been reviewed for accuracy.

Stuart Nicol

Eddie Payapaya

Calibration Results Summary

Probe Type: E-Field Probe E-020

Serial Number: 217

Frequency: 5800 MHz

Sensor Offset: 1.56 mm

Sensor Length: 2.5 mm

Tip Enclosure: Ertalyte*

Tip Diameter: <5 mm

Tip Length: 60 mm

Total Length: 290 mm

Sensitivity in Air

Diode Compression Point: 95 mV

^{*}Resistive to recommended tissue recipes per IEEE-1528

Sensitivity in Head Tissue

Frequency: 5800 MHz

Epsilon: 35.4 (+/-5%) **Sigma:** 5.27 S/m (+/-10%)

ConvF

Channel X: 6.7

Channel Y: 6.7

Channel Z: 6.7

Tissue sensitivity values were calculated using the load impedance of the APREL Laboratories Daq-Paq.

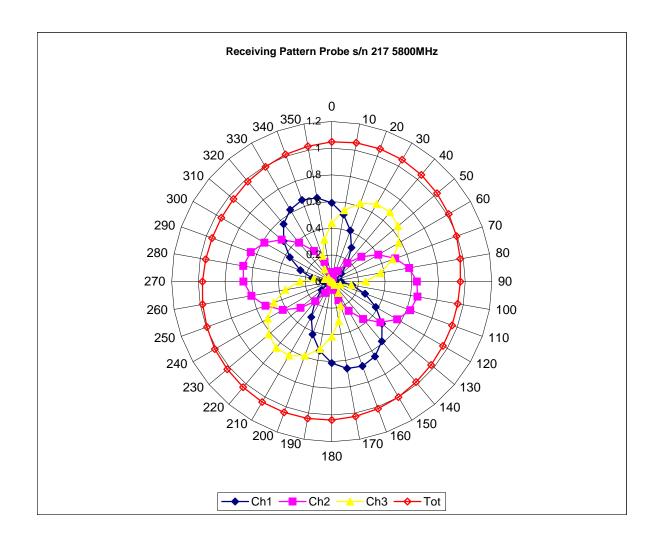
Boundary Effect:

Uncertainty resulting from the boundary effect is less than 2% for the distance between the tip of the probe and the tissue boundary, when less than 2.44mm.

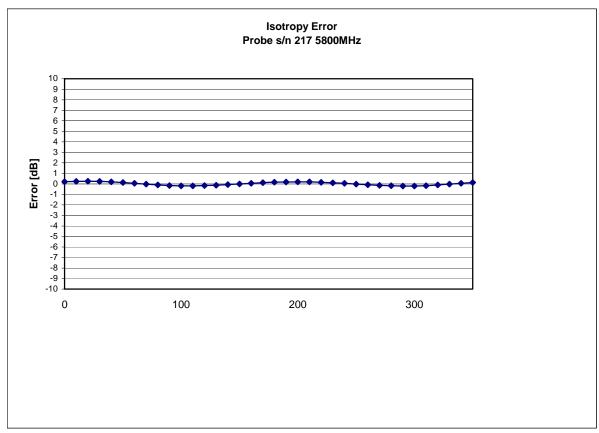
Spatial Resolution:

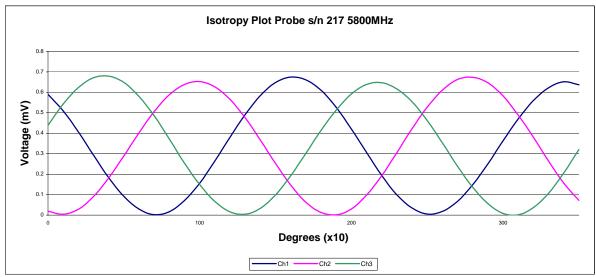
The measured probe tip diameter is 5 mm (+/- 0.01 mm) and therefore meets the requirements of SSI/DRB-TP-D01-032 for spatial resolution.

Receiving Pattern 5800 MHz (Air)



Isotropy Error 5800 MHz (Air)

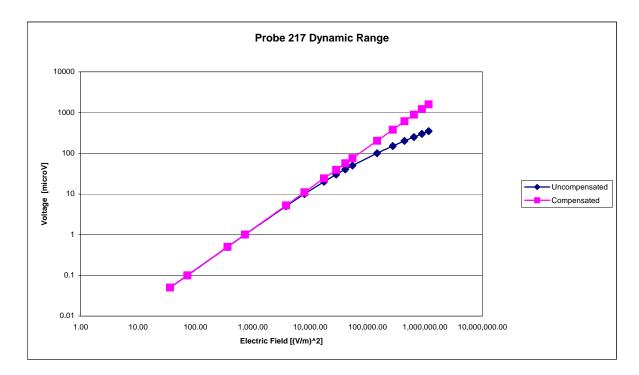




Isotropicity Tissue:

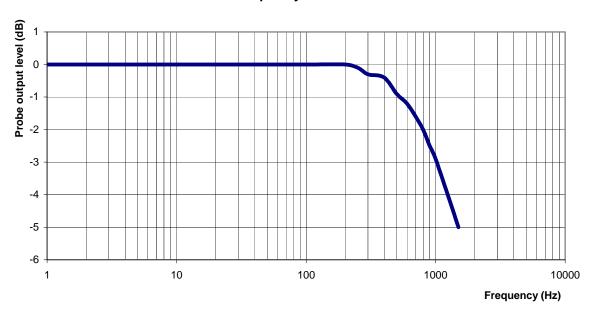
0.10 dB

Dynamic Range



Video Bandwidth

Probe Frequency Characteristics



Video Bandwidth at 500 Hz 1 dB Video Bandwidth at 1.02 KHz: 3 dB

Conversion Factor Uncertainty Assessment

Sensitivity in Head Tissue

Frequency: 5800 MHz

Epsilon: 35.4 (+/-5%) **Sigma:** 5.27 S/m (+/-10%)

ConvF

Channel X: 6.7 7%(K=2)

Channel Y: 6.7 7%(K=2)

Channel Z: 6.7 7%(K=2)

To minimize the uncertainty calculation all tissue sensitivity values were calculated using a load impedance of 5 M Ω .

Boundary Effect:

For a distance of 2.5mm the evaluated uncertainty (increase in the probe sensitivity) is less than 2%.

Test Equipment

The test equipment used during Probe Calibration, manufacturer, model number and, current calibration status are listed and located on the main APREL server R:\NCL\Calibration Equipment\Instrument List May 2006.