8 - TEST RESULTS

This page summarizes the results of the performed dosimetric evaluation. The plots with the corresponding SAR distributions, which reveal information about the location of the maximum SAR with respect to the device could be found in the following pages.

According to the data in section 8.1, the EUT complied with the FCC 2.1093 RF Exposure standards, with worst case of 0.439**mW/g**.

8.1 SAR Test Data

Ambient Temperature (ºC): 23.0
Relative Humidity (%): 51.1

Worst case SAR reading

EUT position	Frequency (MHz)	Conducted Power (W)	Test Type	Antenna Type	Liquid	Phantom	Notes / Accessories	Measured (mW/g)		Limit (mW/g)	Plot #
								100% duty cycle	50% duty cycle		
2.5 cm head separation to phantom	160	5.623	Face-held	Built-in	head	flat	none	0.0665	0.0333	8	1
back in touch with phantom	160	5.623	Body worn	Built-in	body	flat	Leather Case: ACC-300 Headset: ACC-616	0.0268	0.0134	8	2
back in touch with phantom	160	5.623	Body worn	Built-in	body	flat	Leather Case: ACC-300 Speaker Microphone with PTT:ACC-714	0.0268	0.0134	8	3
back in touch with phantom	160	5.623	Body worn	Built-in	body	flat	Leather Case: ACC-300 Ear-hook earphone microphone with VOX PTT:ACC-715	0.0297	0.0149	8	4
back in touch with phantom	160	5.623	Body worn	Built-in	body	flat	Leather Case: ACC-300 Speaker with Microphone: ACC-727	0.0377	0.0189	8	5
back in touch with phantom	160	5.623	Body worn	Built-in	body	flat	Nylon Case: ACC-301 Headset: ACC-616	0.202	0.101	8	6
back in touch with phantom	160	5.623	Body worn	Built-in	body	flat	Nylon Case: ACC-301 Speaker Microphone with PTT:ACC-714	0.439	0.2195	8	7
back in touch with phantom	160	5.623	Body worn	Built-in	body	flat	Nylon Case: ACC-301 Ear-hook earphone microphone with VOX PTT: ACC-715	0.302	0.151	8	8
back in touch with phantom	160	5.623	Body worn	Built-in	body	flat	Nylon Case: ACC-301 Speaker with Microphone: ACC-727	0.312	0.156	8	9
back in touch with phantom	160	5.623	Body worn	Built-in	body	flat	Swievel Belt: 070-0018 Headset: ACC-616	0.0042	0.0021	8	10
back in touch with phantom	160	5.623	Body worn	Built-in	body	flat	Swievel Belt: 070-0018 Earphone with Microphone: ACC-714	0.140	0.07	8	11

SAR Test Data (Continued)

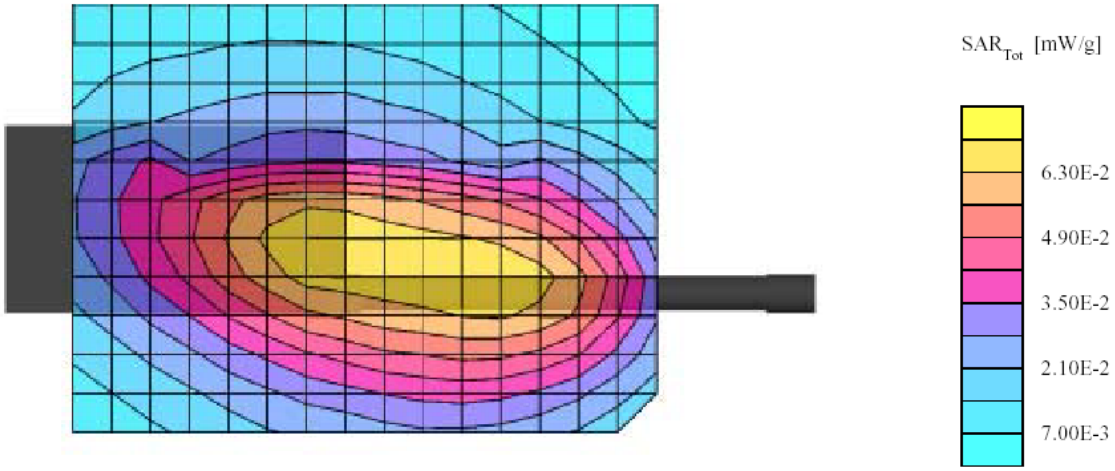
EUT position	Frequency (MHz)	Conducted Power (W)	Test Type	Antenna Type	Liquid	Phantom	Notes / Accessories	Measured (mW/g)		Limit (mW/g)	Plot #
								100% duty cycle	50% duty cycle		
back in touch with phantom	160	5.623	Body worn	Built-in	body	flat	Swievel Belt: 070-0018 Ear-hook earphone microphone with VOX PTT: ACC-715	0.0789	0.0395	8	12
back in touch with phantom	160	5.623	Body worn	Built-in	body	flat	Swievel Belt: 070-0018 Speaker with Microphone: ACC-727	0.0877	0.0439	8	13

8.2 Plots of Test Result

The plots of test result were attached as reference.

Midland, Model: SP-220 / 240 (Face 2.5 cm separation to the flat phantom, Mid channel, Ambient Temp = 23 Deg C, Liquid Temp = 21 Deg C, 10/11/2003)

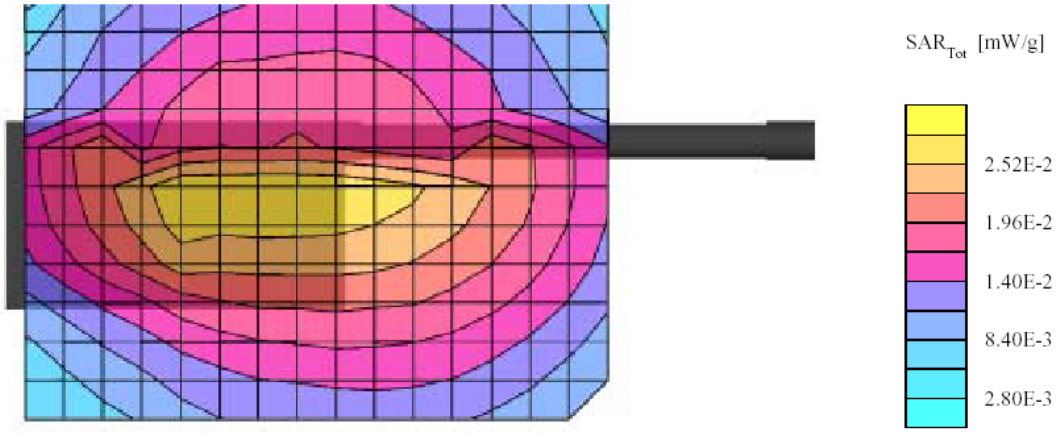
SAM Phantom; Flat Section; Position: (90°,90°); Frequency: 160 MHz
Probe: ES3DV2 - SN3019; ConvF(8.70,8.70,8.70); Crest factor: 1.0; 150 MHz head liquid: σ = 0.75 mho/m ε_r = 53.7 ρ = 1.00 g/cm³
Cubes (2): SAR (1g): 0.0665 mW/g, SAR (10g): 0.0480 mW/g, (Worst-case extrapolation)
Coarse: Dx = 12.0, Dy = 12.0, Dz = 10.0
Powerdrift: 0.05 dB



Plot #1

Midland, Model: SP-220 / 240 (Back side in touch with flat phantom with accessories - leather case p/n: ACC-300 and headset p/n: ACC-616, Mid channel, Ambient Temp = 23 Deg C, Liquid Temp = 21 Deg C, 10/11/2003)

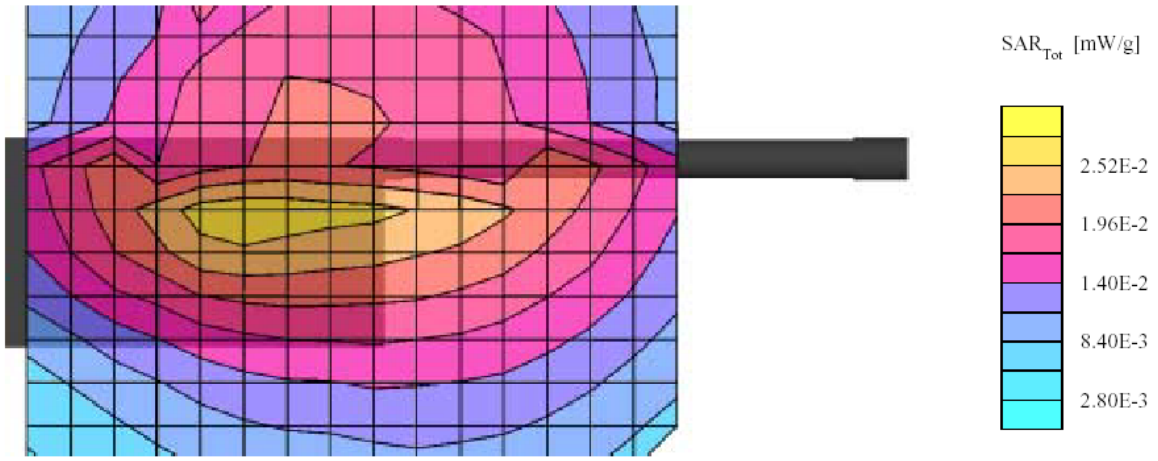
SAM Phantom; Flat Section; Position: (270°,270°); Frequency: 160 MHz
Probe: ES3DV2 - SN3019; ConvF(8.30,8.30,8.30); Crest factor: 1.0; 150 MHz Body liquid: σ = 0.78 mho/m ε_r = 61.2 ρ = 1.00 g/cm^3
Cube 5x5x7: SAR (1g): 0.0268 mW/g, SAR (10g): 0.0207 mW/g, (Worst-case extrapolation)
Coarse: Dx = 12.0, Dy = 12.0, Dz = 10.0
Powerdrift: 0.04 dB



Plot #2

Midland, Model: SP-220 / 240 (Back side in touch with flat phantom with accessories - leather case p/n: ACC-300 and speaker microphone with PTT p/n: ACC-714, Mid channel, Ambient Temp = 23 Deg C, Liquid Temp = 21 Deg C, 10/11/2003)

SAM Phantom; Flat Section; Position: (270°,270°); Frequency: 160 MHz
Probe: ES3DV2 - SN3019; ConvF(8.30,8.30,8.30); Crest factor: 1.0; 150 MHz Body liquid: σ = 0.78 mho/m ε_r = 61.2 ρ = 1.00 g/cm^3
Cubes (2): SAR (1g): 0.0268 mW/g, SAR (10g): 0.0205 mW/g, (Worst-case extrapolation)
Coarse: Dx = 12.0, Dy = 12.0, Dz = 10.0
Powerdrift: 0.02 dB



Plot #3

Midland, Model: SP-220 / 240 (Back side in touch with flat phantom with accessories - leather case p/n: ACC-300 and ear-hook earphone microphone with VOX PTT p/n: ACC-715, Mid channel, Ambient Temp = 23 Deg C, Liquid Temp = 21 Deg C, 10/11/2003)

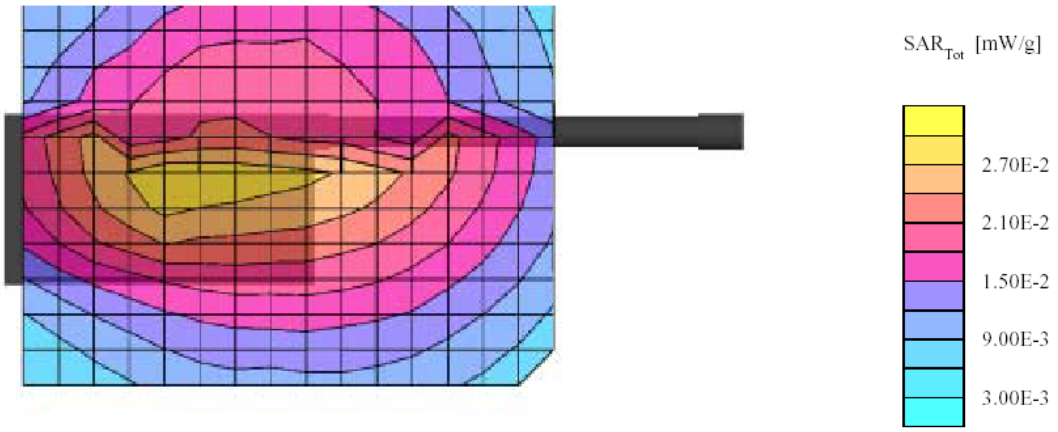
SAM Phantom; Flat Section; Position: (270°,270°); Frequency: 160 MHz

Probe: ES3DV2 - SN3019; ConvF(8.30,8.30,8.30); Crest factor: 1.0; 150 MHz Body liquid: σ = 0.78 mho/m ε_r = 61.2 ρ = 1.00 g/cm^3

Cube 5x5x7: SAR (1g): 0.0297 mW/g, SAR (10g): 0.0196 mW/g, (Worst-case extrapolation)

Coarse: Dx = 12.0, Dy = 12.0, Dz = 10.0

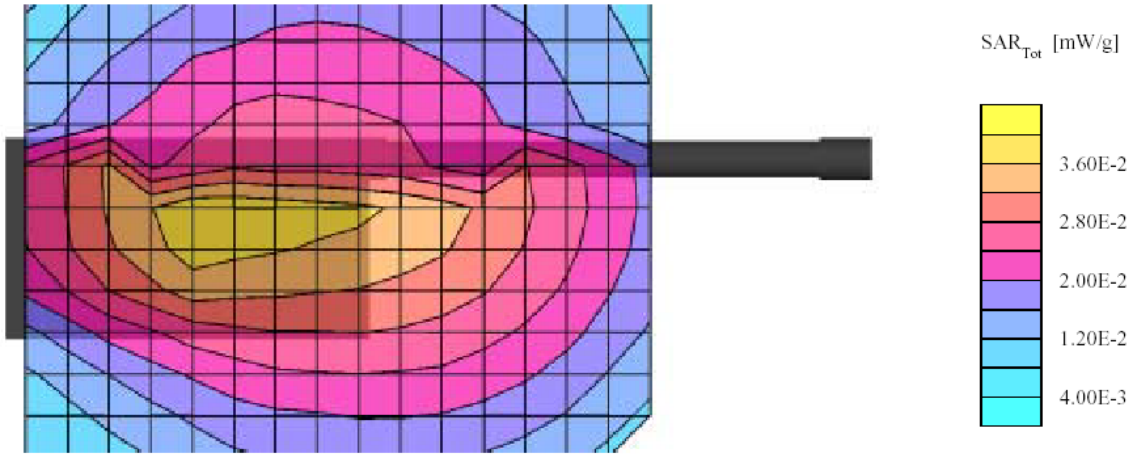
Powerdrift: 0.05 dB



Plot #4

Midland, Model: SP-220 / 240 (Back side in touch with flat phantom with accessories - leather case p/n: ACC-300 and speaker with microphone p/n: ACC-727, Mid channel, Ambient Temp = 23 Deg C, Liquid Temp = 21 Deg C, 10/11/2003)

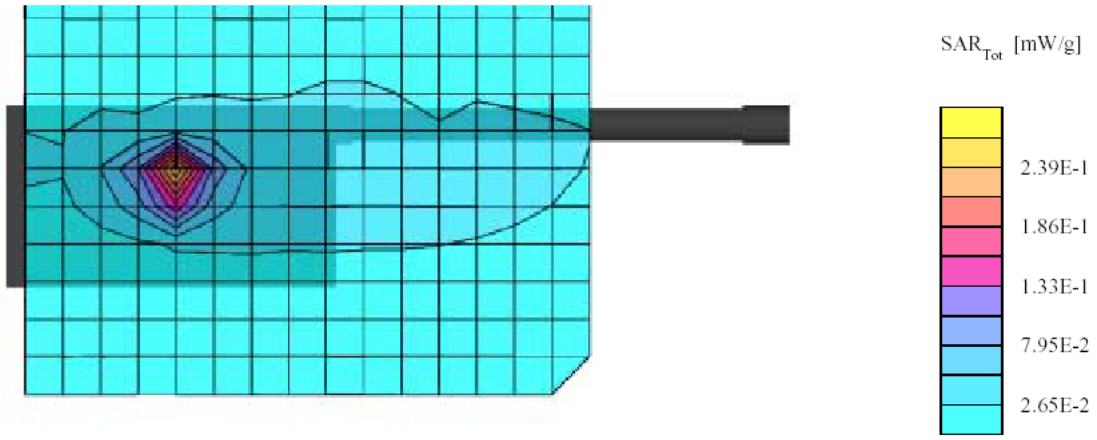
SAM Phantom; Flat Section; Position: (270°,270°); Frequency: 160 MHz
Probe: ES3DV2 - SN1604; ConvF(8.30,8.30,8.30); Crest factor: 1.0; 150 MHz Body liquid: σ = 0.78 mho/m ε_r = 61.2 ρ = 1.00 g/cm^3
Cubes (2): SAR (1g): 0.0377 mW/g, SAR (10g): 0.0284 mW/g, (Worst-case extrapolation)
Coarse: Dx = 12.0, Dy = 12.0, Dz = 10.0
Powerdrift: 0.03 dB



Plot #5

Midland, Model: SP-220 / 240 (Back side in touch with flat phantom with accessories - nylon case p/n: ACC-301 and headset p/n: ACC-616, Mid channel, Ambient Temp = 23 Deg C, Liquid Temp = 21 Deg C, 10/11/2003)

SAM Phantom; Flat Section; Position: (270°,270°); Frequency: 160 MHz
Probe: ES3DV2 - SN3019; ConvF(8.30,8.30,8.30); Crest factor: 1.0; 150 MHz Body liquid: σ = 0.78 mho/m ε_r = 61.2 ρ = 1.00 g/cm^3
Cube 5x5x7: SAR (1g): 0.202 mW/g, SAR (10g): 0.0893 mW/g, (Worst-case extrapolation)
Coarse: Dx = 12.0, Dy = 12.0, Dz = 10.0
Powerdrift: -0.01 dB



Plot #6

Midland, Model: SP-220 / 240 (Back side in touch with flat phantom with accessories - nylon case p/n: ACC-301 and speaker microphone with PTT p/n: ACC-714, Mid channel, Ambient Temp = 23 Deg C, Liquid Temp = 21 Deg C, 10/11/2003)

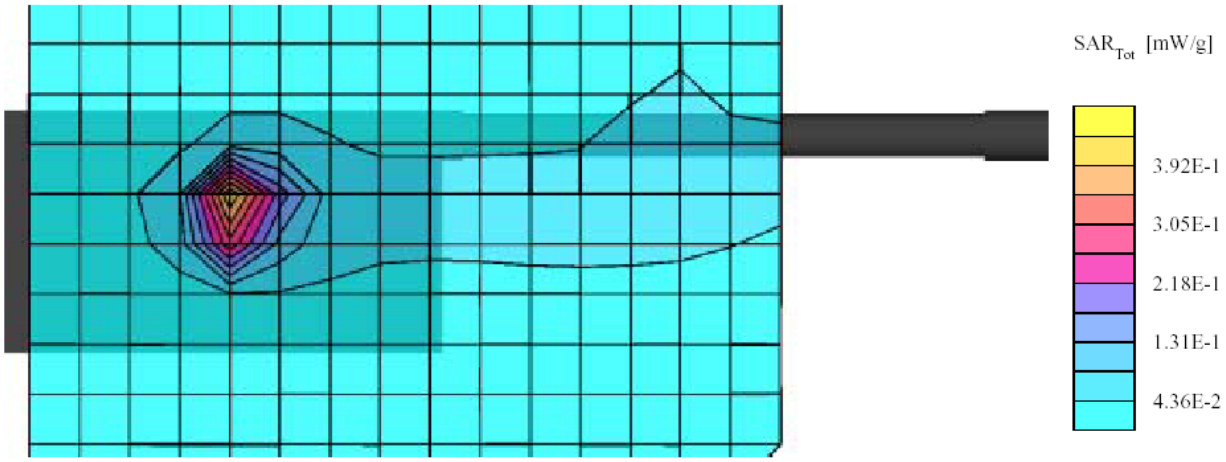
SAM Phantom; Flat Section; Position: (270°,270°); Frequency: 160 MHz

Probe: ES3DV2 - SN3019; ConvF(8.0,8.30,8.30); Crest factor: 1.0; 150 MHz Body liquid: σ = 0.78 mho/m ε_r = 61.2 ρ = 1.00 g/cm^3

Cube 5x5x7: SAR (1g): 0.439 mW/g, SAR (10g): 0.168 mW/g, (Worst-case extrapolation)

Coarse: Dx = 12.0, Dy = 12.0, Dz = 10.0

Powerdrift: 0.05 dB



Plot #7

Midland, Model: SP-220 / 240 (Back side in touch with flat phantom with accessories - nylon case p/n: ACC-301 and ear-hook earphone microphone with VOX PTT p/n: ACC-715, Mid channel, Ambient Temp = 23 Deg C, Liquid Temp = 21 Deg C, 10/11/2003)

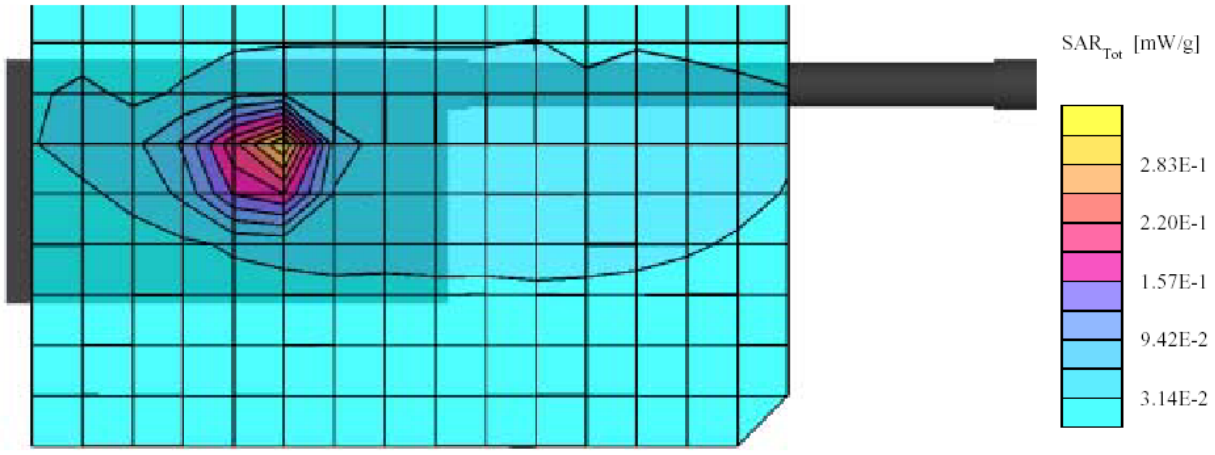
SAM Phantom; Flat Section; Position: (270°,270°); Frequency: 160 MHz

Probe: ES3DV2 - SN3019; ConvF(8.30,8.30,8.30); Crest factor: 1.0; 150 MHz Body liquid: σ = 0.78 mho/m ε_r = 61.2 ρ = 1.00 g/cm^3

Cube 5x5x7: SAR (1g): 0.302 mW/g, SAR (10g): 0.126 mW/g, (Worst-case extrapolation)

Coarse: Dx = 12.0, Dy = 12.0, Dz = 10.0

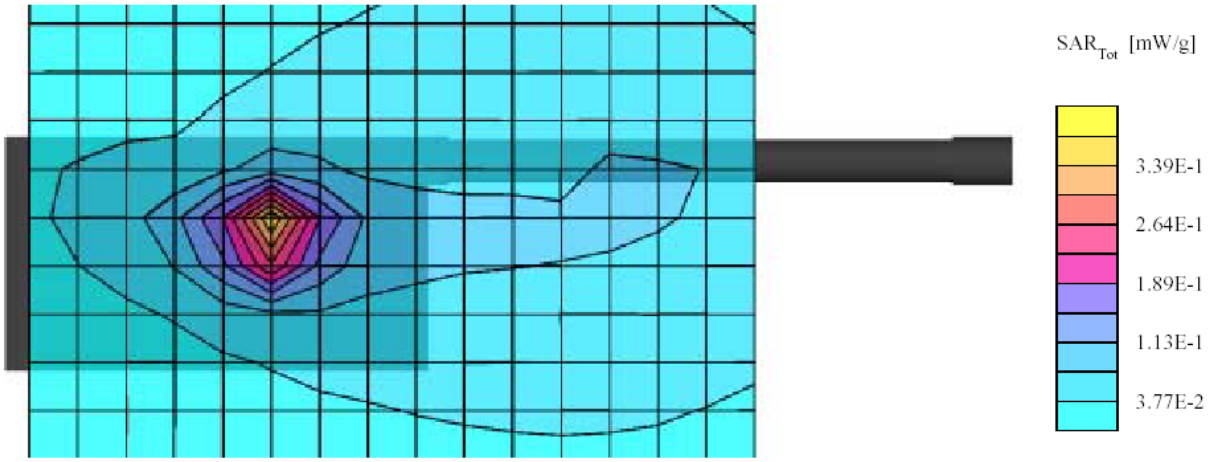
Powerdrift: -0.02 dB



Plot #8

Midland, Model: SP-220 / 240 (Back side in touch with flat phantom with accessories - nylon case p/n: ACC-301 and speaker with microphone p/n: ACC-727, Mid channel, Ambient Temp = 23 Deg C, Liquid Temp = 21 Deg C, 10/11/2003)

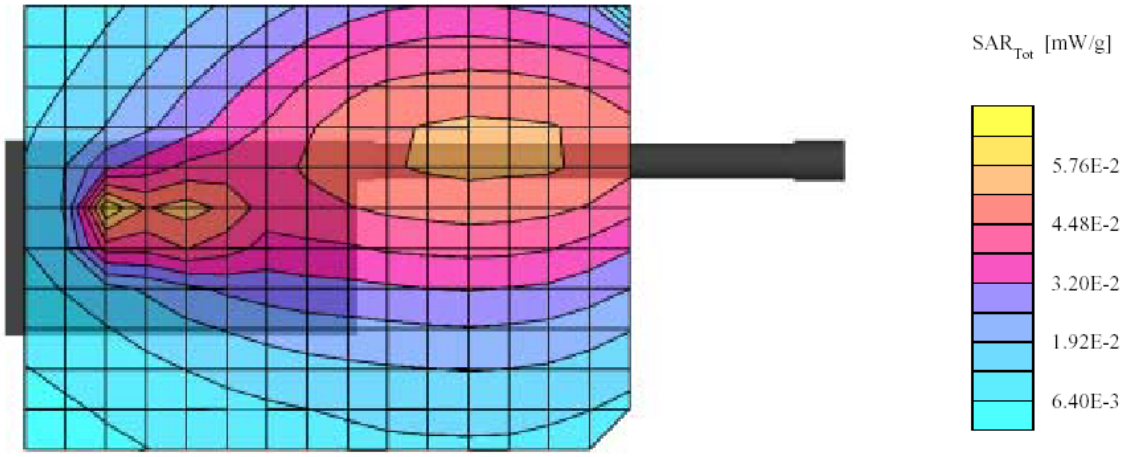
SAM Phantom; Flat Section; Position: (270°,270°); Frequency: 160 MHz
Probe: ES3DV2 - SN3019; ConvF(8.30,8.30,8.30); Crest factor: 1.0; 150 MHz Body liquid: $\sigma = 0.78$ mho/m $\varepsilon_r = 61.2$ $\rho = 1.00$ g/cm^3
Cube 5x5x7: SAR (1g): 0.312 mW/g, SAR (10g): 0.151 mW/g, (Worst-case extrapolation)
Coarse: Dx = 12.0, Dy = 12.0, Dz = 10.0
Powerdrift: -0.00 dB



Plot #9

Midland, Model: SP-220 / 240 (Back side in touch with flat phantom with accessories - swievel belt clip p/n: 070-0018 and headset p/n: ACC-616, Mid channel, Ambient Temp = 23 Deg C, Liquid Temp = 21 Deg C, 10/11/2003)

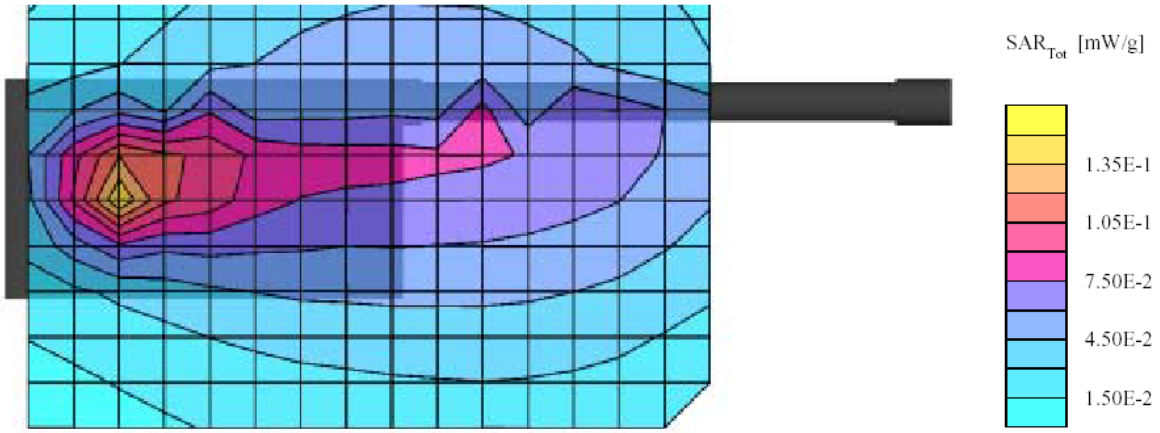
SAM Phantom; Flat Section; Position: (270°,270°); Frequency: 160 MHz
Probe: ES3DV2 - SN3019; ConvF(8.30,8.30,8.30); Crest factor: 1.0; 150 MHz body liquid: σ = 0.78 mho/m ε_r = 61.2 ρ = 1.00 g/cm³
Cube 5x5x7: SAR (1g): 0.0042 mW/g, SAR (10g): 0.0028 mW/g, (Worst-case extrapolation)
Coarse: Dx = 12.0, Dy = 12.0, Dz = 10.0
Powerdrift: -0.02 dB



Plot #10

Midland, Model: SP-220 / 240 (Back side in touch with flat phantom with accessories - swievel belt clip p/n: 070-0018 and earphone with microphone p/n: ACC-714, Mid channel, Ambient Temp = 23 Deg C, Liquid Temp = 21 Deg C, 10/11/2003)

SAM Phantom; Flat Section; Position: (270°,270°); Frequency: 160 MHz
Probe: ES3DV2 - SN3019; ConvF(8.30,8.30,8.30); Crest factor: 1.0; 150 MHz body liquid: σ = 0.78 mho/m ε_r = 61.2 ρ = 1.00 g/cm^3
Cube 5x5x7: SAR (1g): 0.140 mW/g, SAR (10g): 0.0752 mW/g, (Worst-case extrapolation)
Coarse: Dx = 12.0, Dy = 12.0, Dz = 10.0
Powerdrift: 0.01 dB



Plot #11

Midland, Model: SP-220 / 240 (Back side in touch with flat phantom with accessories - swievel belt clip p/n: 070-0018 and ear-hook earphone microphone with VOX PTT p/n: ACC-715, Mid channel, Ambient Temp = 23 Deg C, Liquid Temp = 21 Deg C, 10/11/2003)

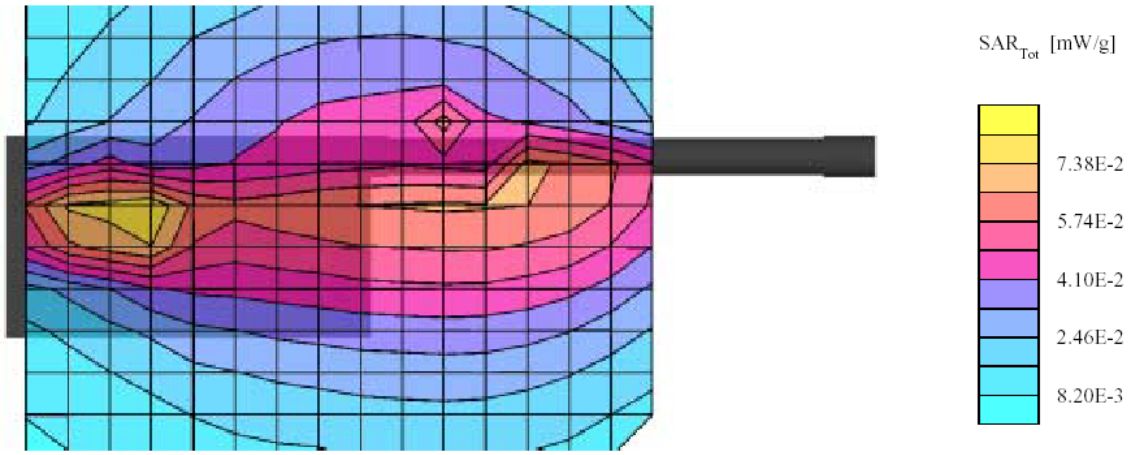
SAM Phantom; Flat Section; Position: (270°,270°); Frequency: 160 MHz

Probe: ES3DV2 - SN3019; ConvF(8.30,8.30,8.30); Crest factor: 1.0; 150 MHz body liquid: σ = 0.78 mho/m ε_r = 61.2 ρ = 1.00 g/cm^3

Cube 5x5x7: SAR (1g): 0.0789 mW/g, SAR (10g): 0.0492 mW/g, (Worst-case extrapolation)

Coarse: Dx = 12.0, Dy = 12.0, Dz = 10.0

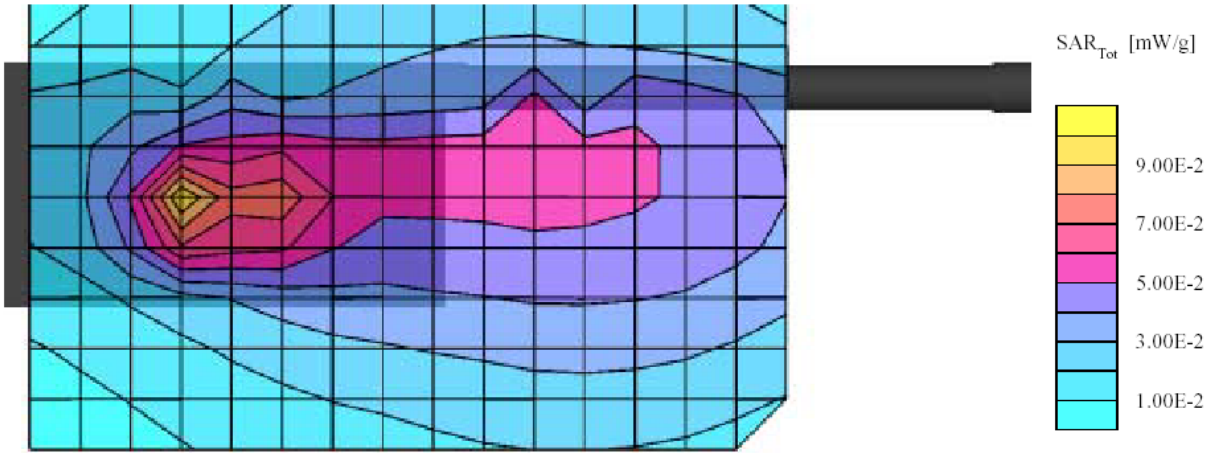
Powerdrift: -0.02 dB



Plot #12

Midland, Model: SP-220 / 240 (Back side in touch with flat phantom with accessories - swievel belt clip p/n: 070-0018 and speaker with microphone p/n: ACC-727, Mid channel, Ambient Temp = 23 Deg C, Liquid Temp = 21 Deg C, 10/11/2003)

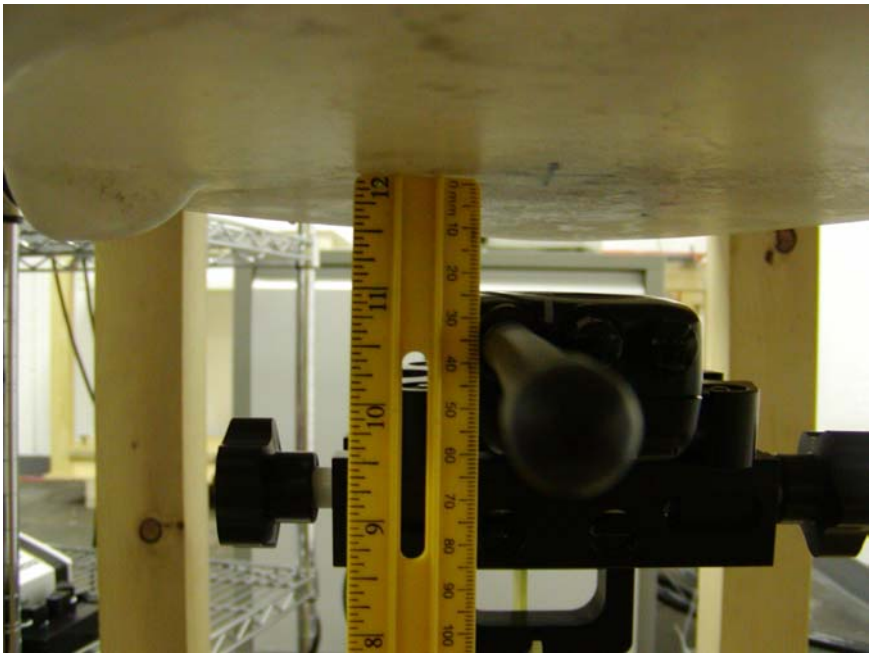
SAM Phantom; Flat Section; Position: (270°,270°); Frequency: 160 MHz
Probe: ES3DV2 - SN3019; ConvF(8.30,8.30,8.30); Crest factor: 1.0; 150 MHz body liquid: σ = 0.78 mho/m ε_r = 61.2 ρ = 1.00 g/cm³
Cube 5x5x7: SAR (1g): 0.0877 mW/g, SAR (10g): 0.0482 mW/g, (Worst-case extrapolation)
Coarse: Dx = 12.0, Dy = 12.0, Dz = 10.0
Powerdrift: -0.01 dB



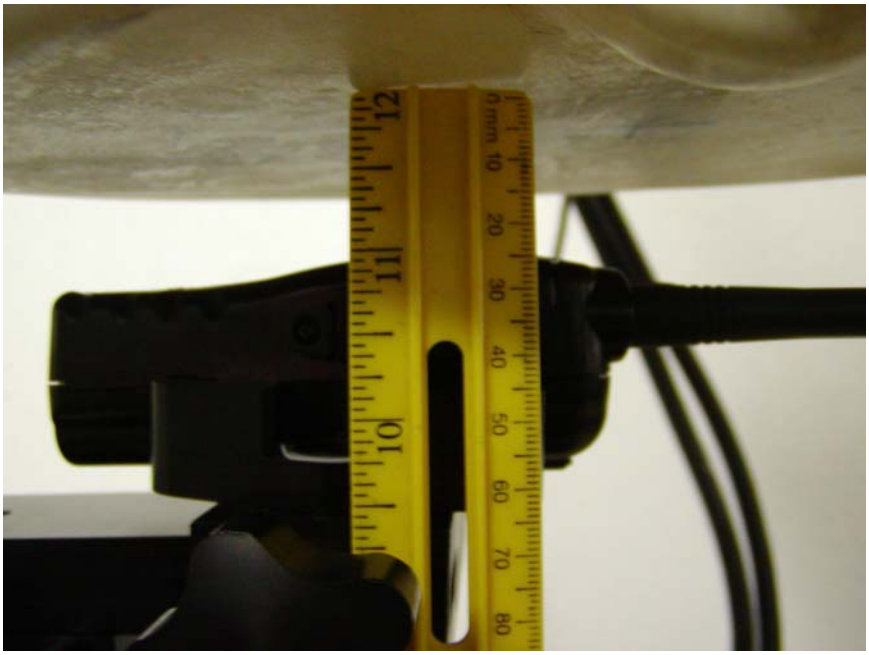
Plot #13

EXHIBIT A - SAR SETUP PHOTOGRAPHS

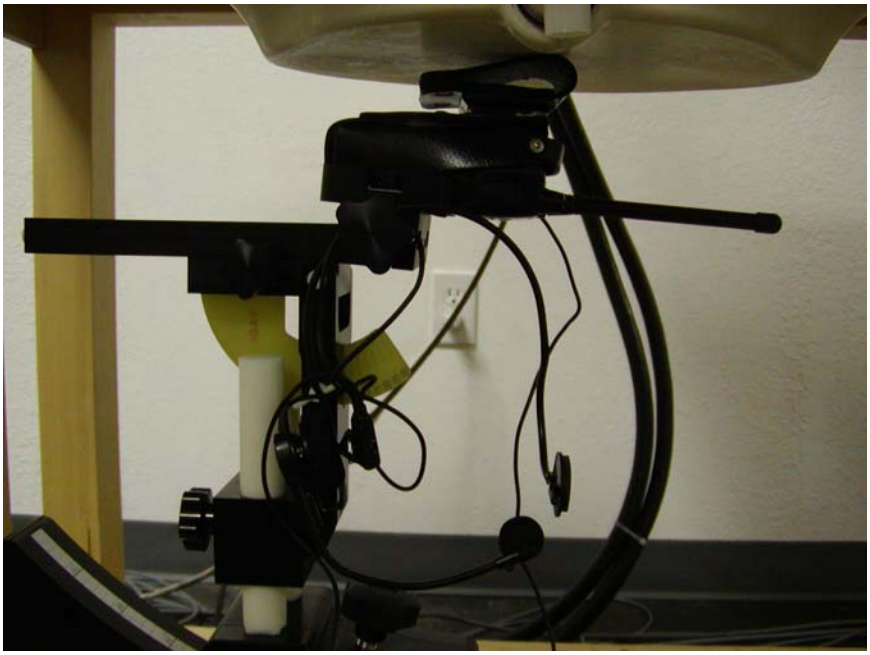
2.5cm Head Separation to Flat Phantom – Front View



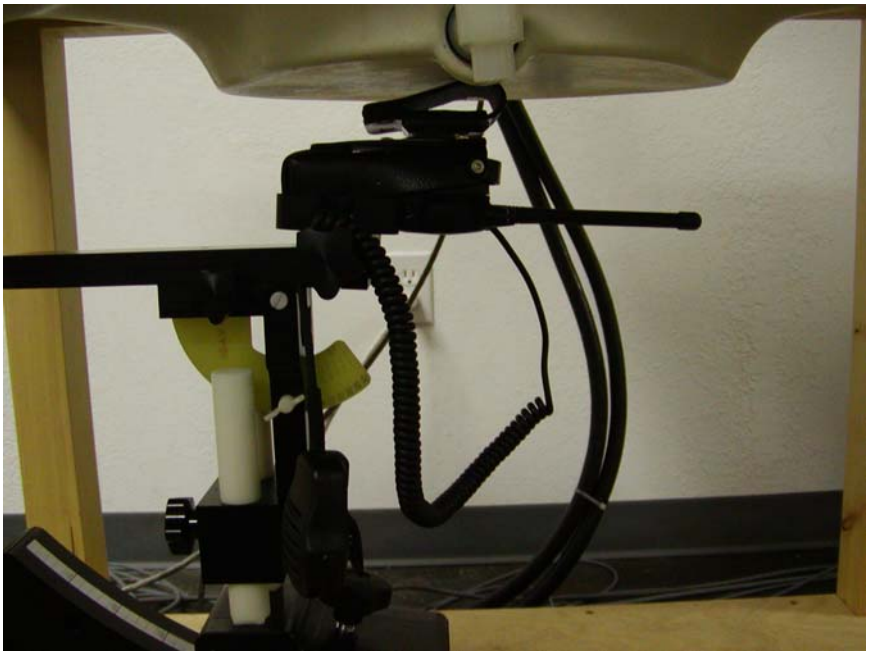
2.5cm Head Separation to Flat Phantom – Side View



Back in Touch with Phantom with Leather Case: ACC-300 and Headset: ACC-616

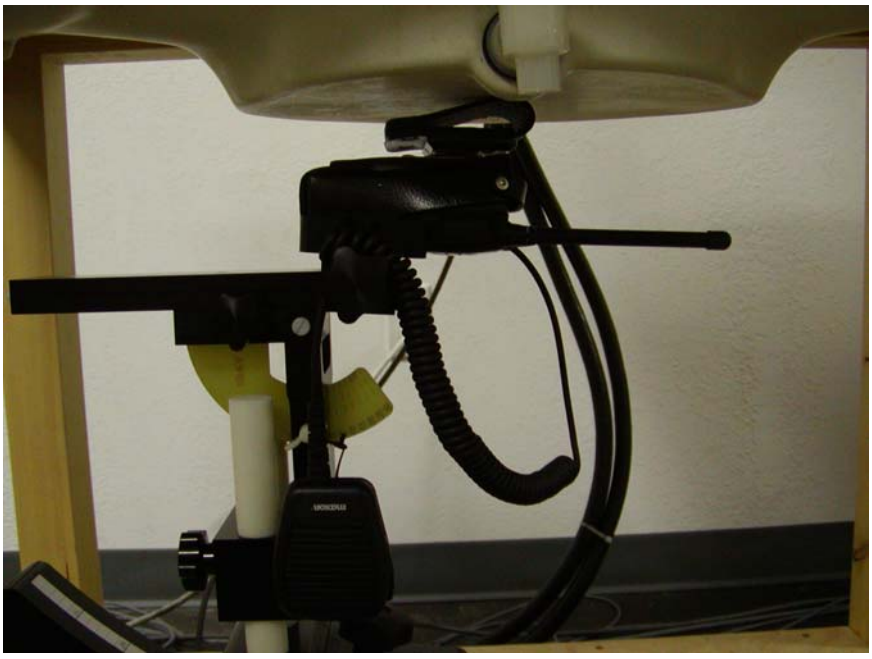


Back in Touch with Phantom with Leather Case: ACC-300 and Speaker Microphone with PTT: ACC-714

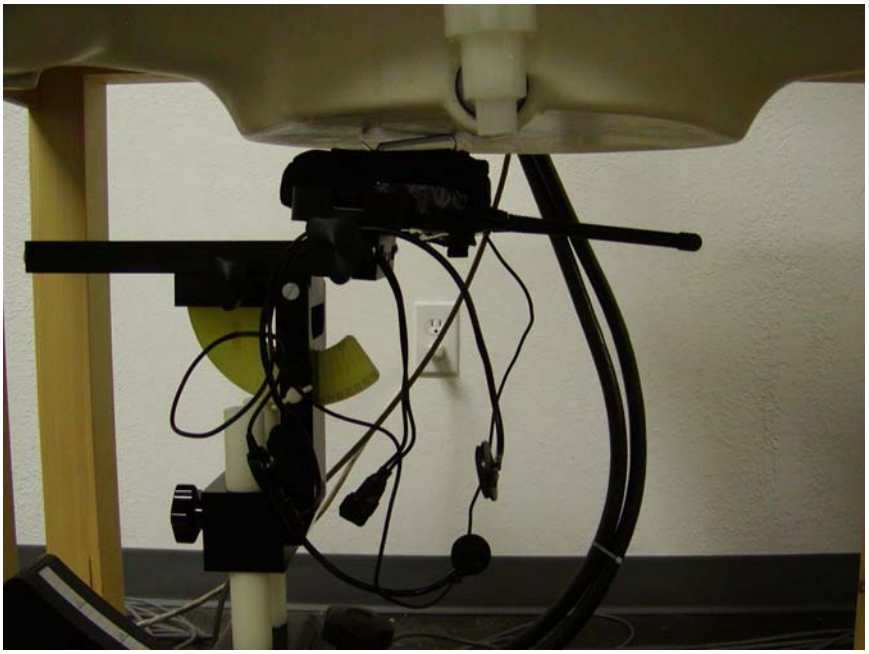


Back in Touch with Phantom with Leather Case: ACC-300 and Ear-Hook Earphone Microphone with VOX PTT: ACC-715

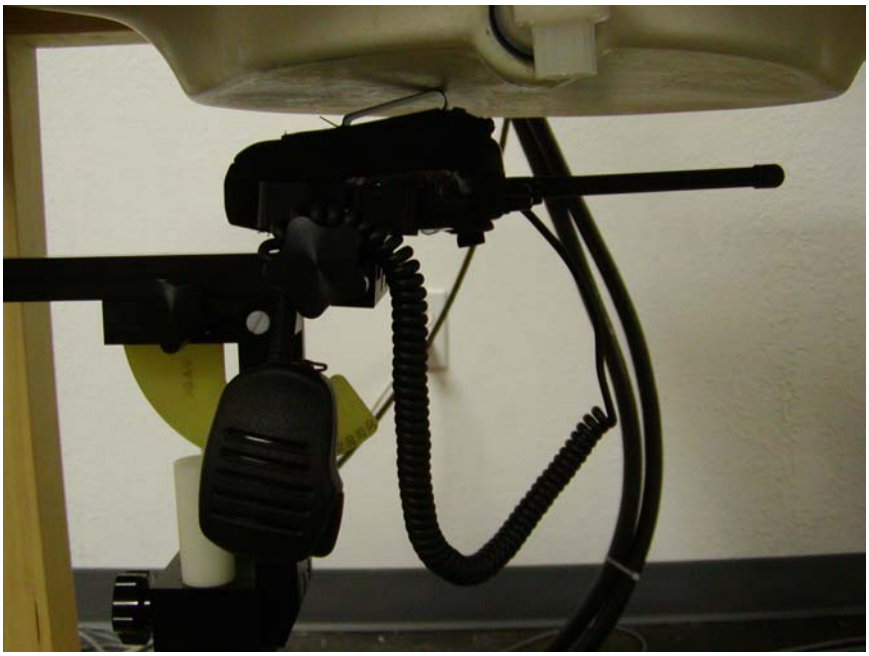
Back in Touch with Phantom with Leather Case: ACC-300 and Speaker with Microphone: ACC-727



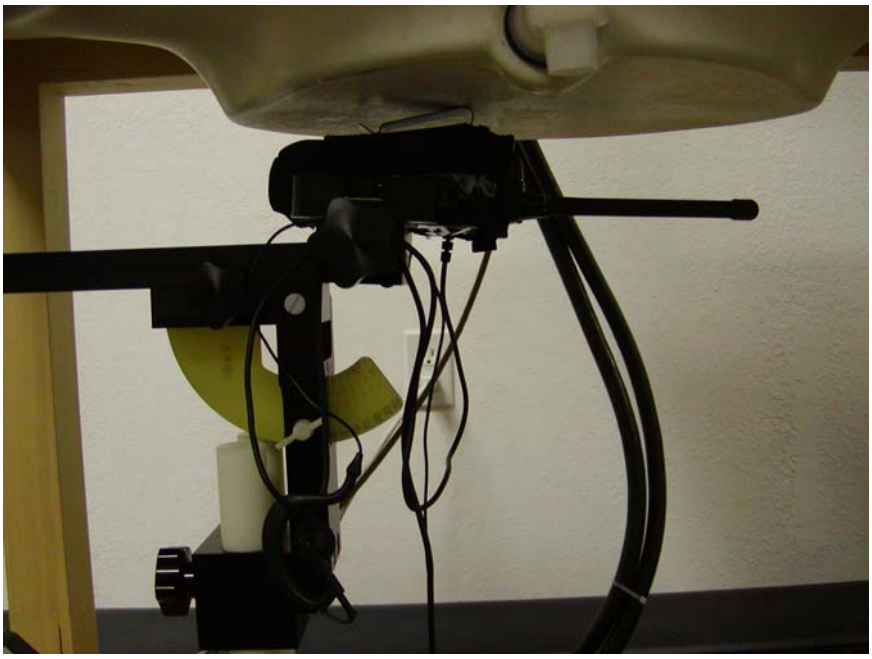
Back in Touch with Phantom with Nylon Case: ACC-301 and Headset: ACC-616



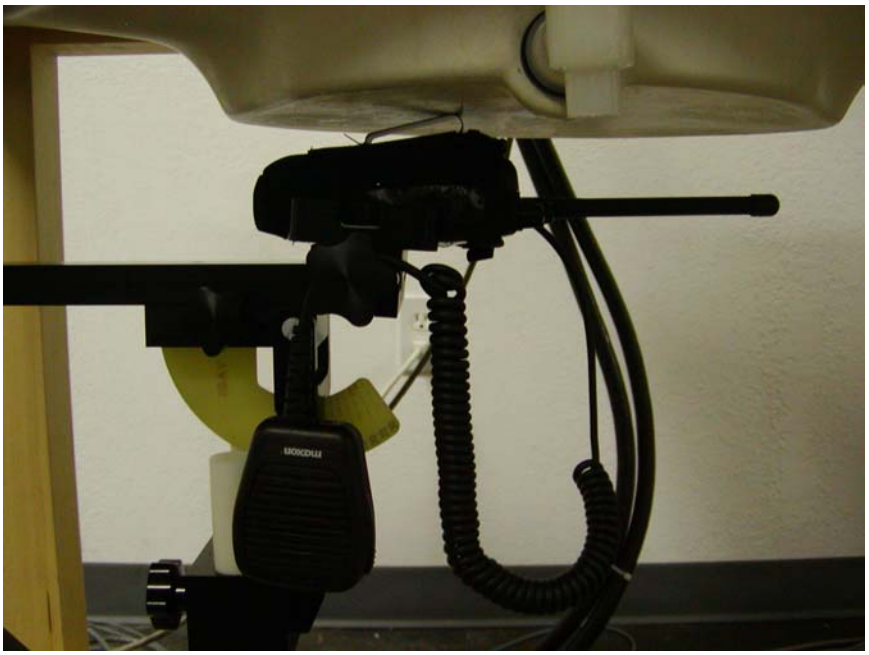
Back in Touch with Phantom with Nylon Case: ACC-301 and Speaker Microphone with PTT: ACC-714



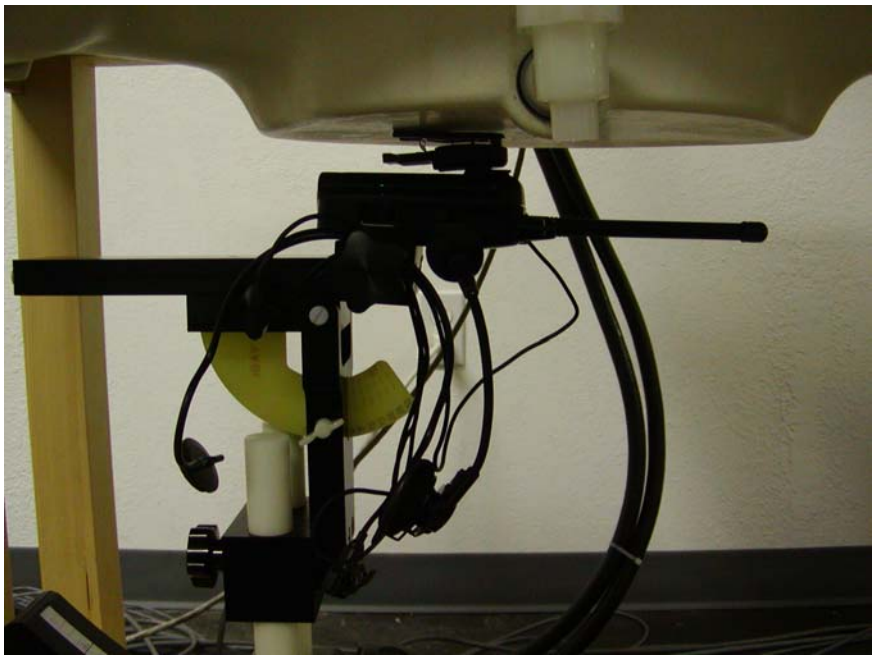
Back in Touch with Phantom with Nylon Case: ACC-301 and Ear-Hook Earphone Microphone with VOX PTT: ACC-715



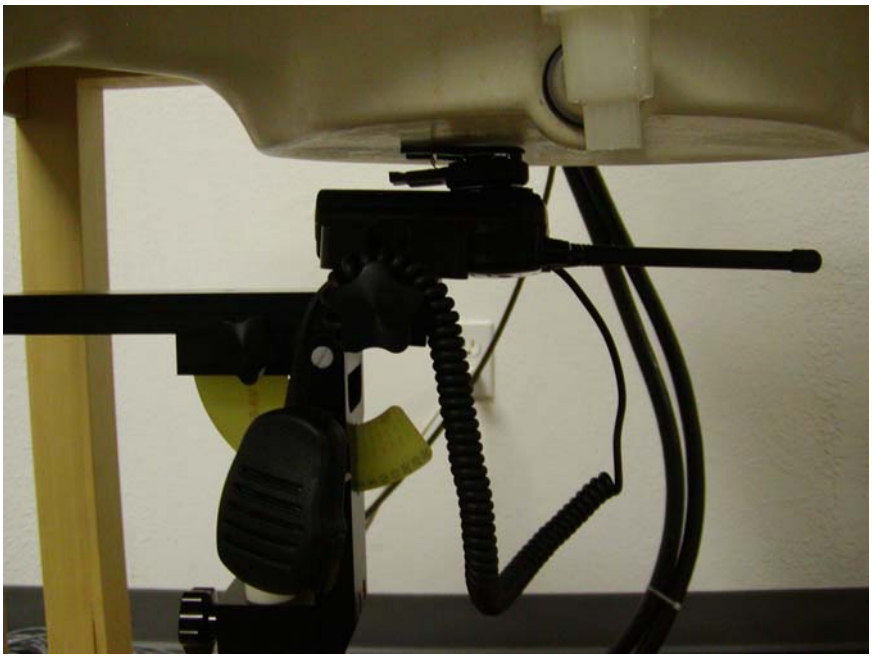
Back in Touch with Phantom with Nylon Case: ACC-301 and Speaker with Microphone: ACC-727



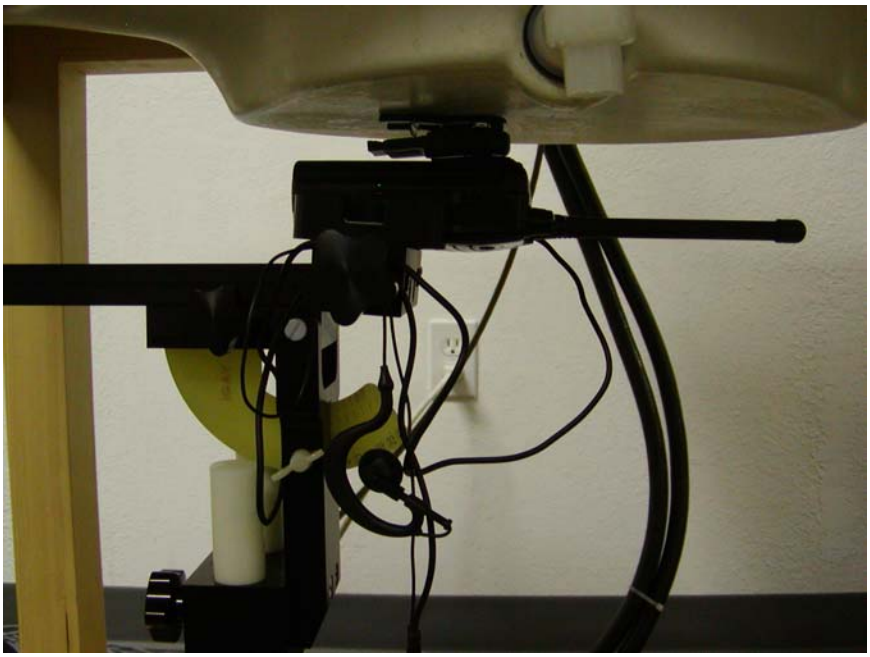
Back in Touch with Phantom with Swievel Belt: 070-0018 and Headset: ACC-616



Back in Touch with Phantom with Swievel Belt: 070-0018 and Earphone with Microphone: ACC-714



Back in Touch with Phantom with Swievel Belt: 070-0018 and Ear-Hook Earphone Microphone with VOX PTT: ACC-715



Back in Touch with Phantom with Swievel Belt: 070-0018 and Speaker with Microphone: ACC-727

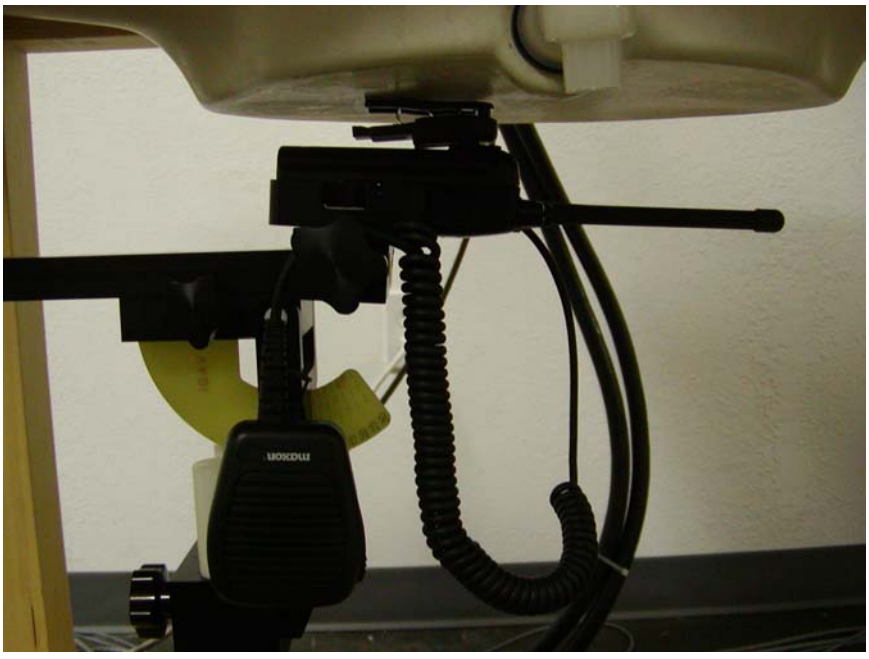


EXHIBIT B - EUT PHOTOGRAPHS

Chassis - Front View

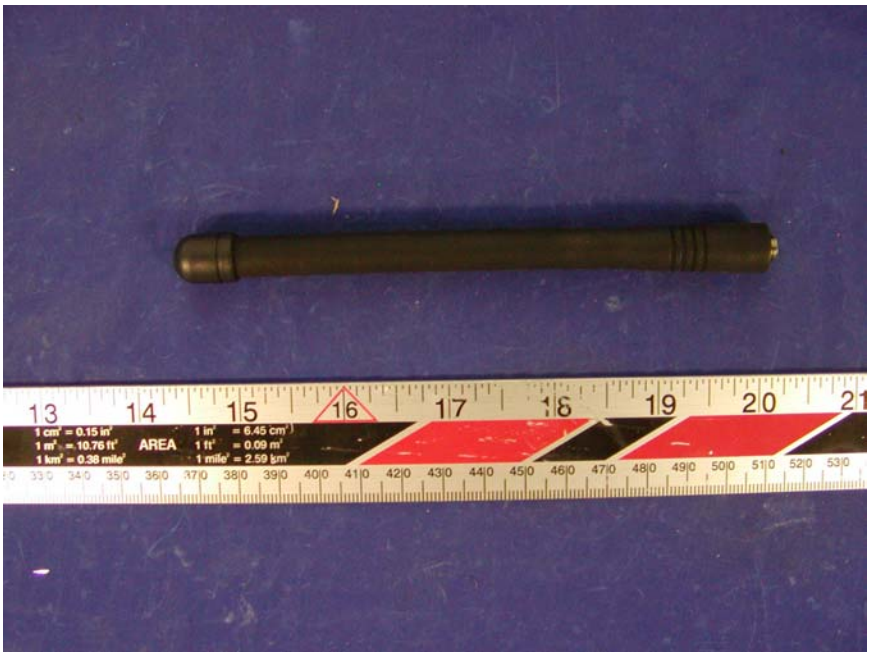
Chassis – Rear View

Chassis – PTT Side View

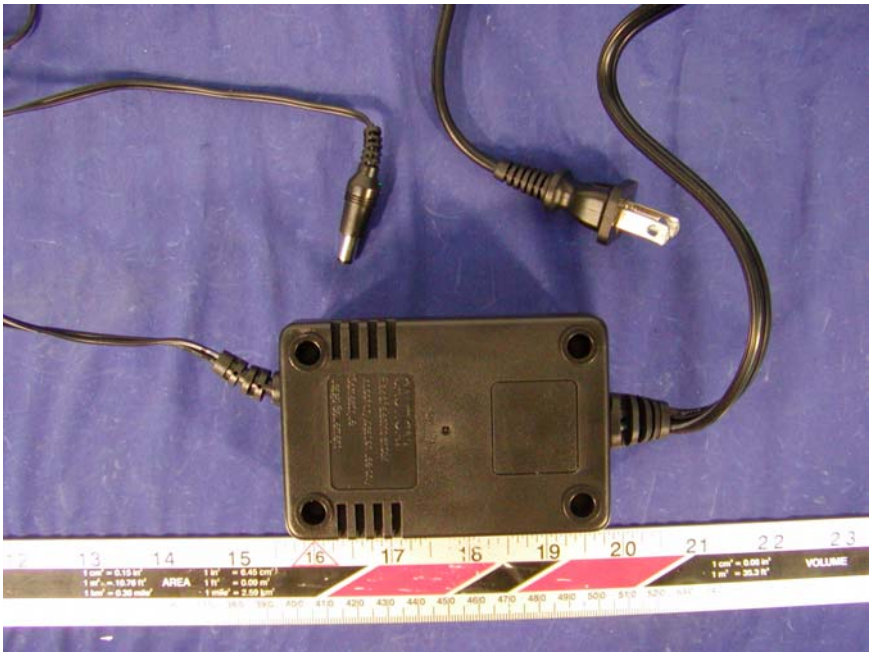
Chassis – Ear/Microphone Side View

Chassis – Top View

Antenna View



Power Adapter View

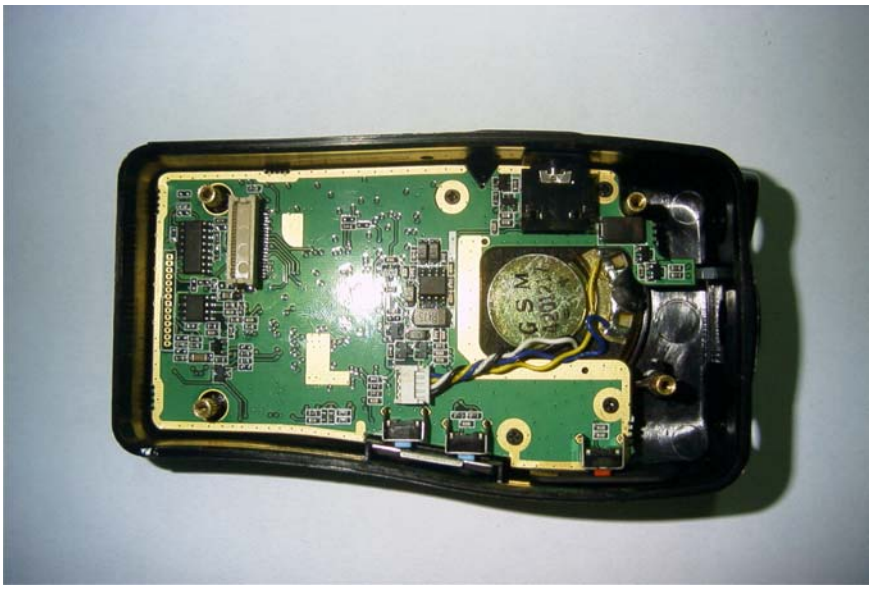


Battery View

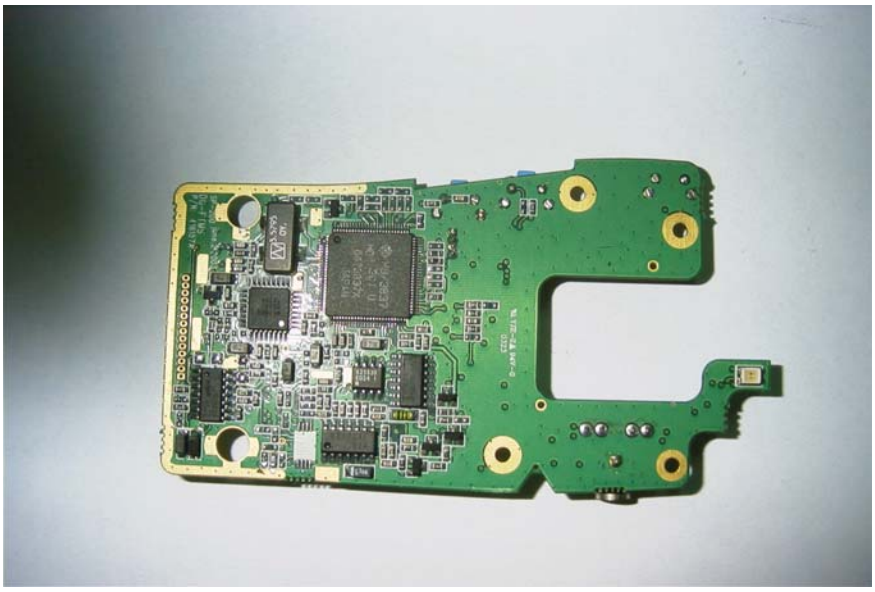
Charger View

Earphone/Microphone View

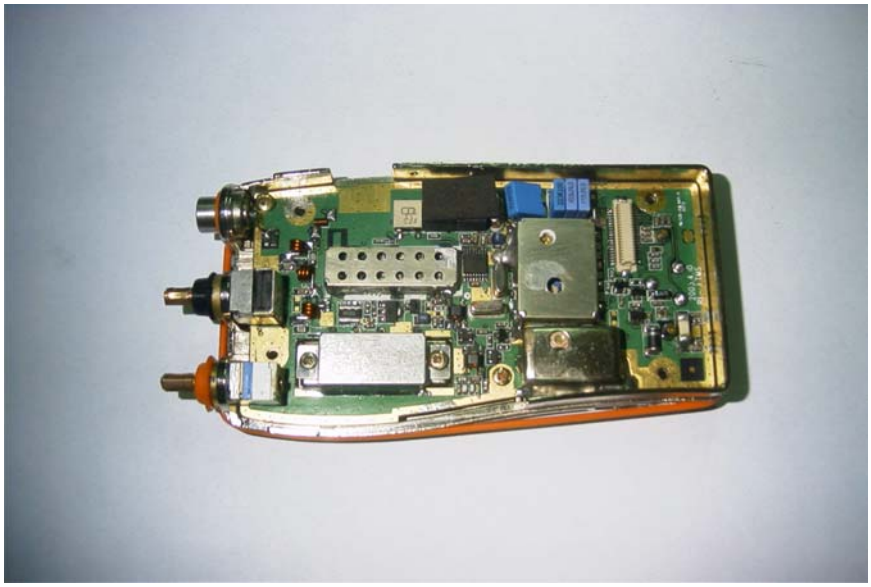
EUT – Board and Housing View



EUT – Board Component View



EUT – RF Board and Housing View



EUT – RF Board Component View

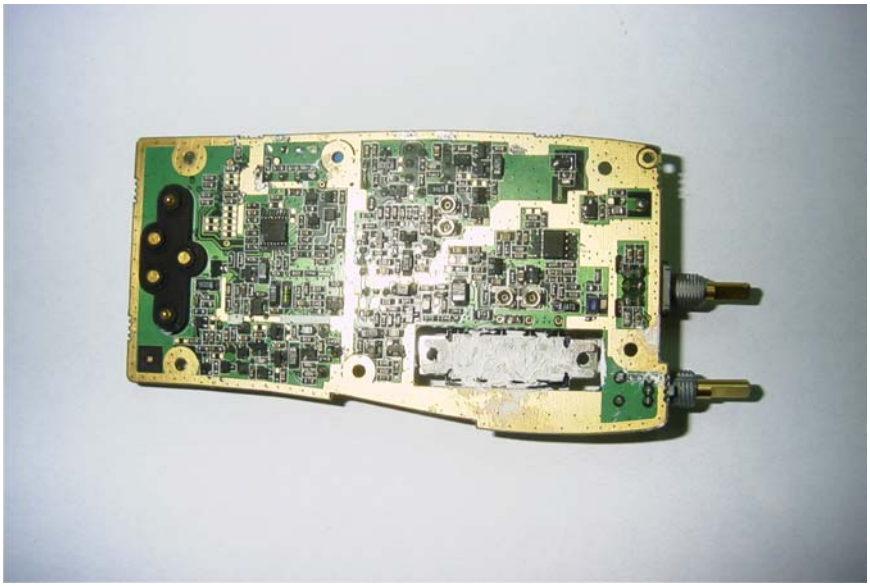


EXHIBIT C – Z-Axis

Midland, Model: SP-220 / 240 (Back side in touch with flat phantom with accessories - nylon case p/n: ACC-301 and speaker microphone with PTT p/n: ACC-714, Mid channel, Ambient Temp = 23 Deg C, Liquid Temp = 21 Deg C, 10/7/2003)

SAM Phantom; Section; Position: ; Frequency: 160 MHz

Probe: ET3DV6 - SN1604; ConvF(8.80,8.80,8.80); Crest factor: 1.0; 150 MHz Body liquid: σ = 0.78 mho/m ε_r = 61.2 ρ = 1.00 g/cm^3

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Z-Axis: Dx = 0.0, Dy = 0.0, Dz = 2.0