

APPENDIX B Plots Of The SAR Measurements

Plots of the measured SAR distributions inside the phantom are given in this Appendix for all tested configurations. The spatial peak SAR values were assessed with the procedure described in this report.

Table: SAR Measurement Plot Numbers

Test Position	Plot Number	Frequency (MHz)
Belt Clip	1	221.0.75
Belt Clip with Holster	2	221.0.75
Face Frontal	3	221.0.75
Belt Clip SPK-MIC	4	221.0.75
Face Frontal SPK-MIC	5	221.0.75

Table: Validation Plot Numbers

Date	Plot Number	Frequency
13 th July 2012	6	300 MHz



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Test Date: 13 July 2012

File Name: M120704 220 MHz Belt Clip 13-07-12.da52:0

DUT: SIMOCO PTT; Type: SRP9180 KMA; Serial: ET9KA1210DCMK

* Communication System: PTT; Frequency: 221.075 MHz; Duty Cycle: 1:1

* Medium parameters used: $f = 222 \text{ MHz}$; $\sigma = 0.9 \text{ mho/m}$; $\epsilon_r = 59.826$; $\rho = 1000 \text{ kg/m}^3$

- Electronics: DAE3 Sn442; Probe: ET3DV6 - SN1380; ConvF(7.75, 7.75, 7.75); Calibrated: 16/07/2012

- Phantom: ELI 4.0; Serial: 1101; Phantom section: Flat Section

Configuration/Channel 1 Test/Area Scan (81x211x1): Measurement grid:

$dx=15\text{mm}$, $dy=15\text{mm}$

Maximum value of SAR (interpolated) = 1.73 mW/g

Configuration/Channel 1 Test/Zoom Scan (7x7x7)/Cube 0: Measurement

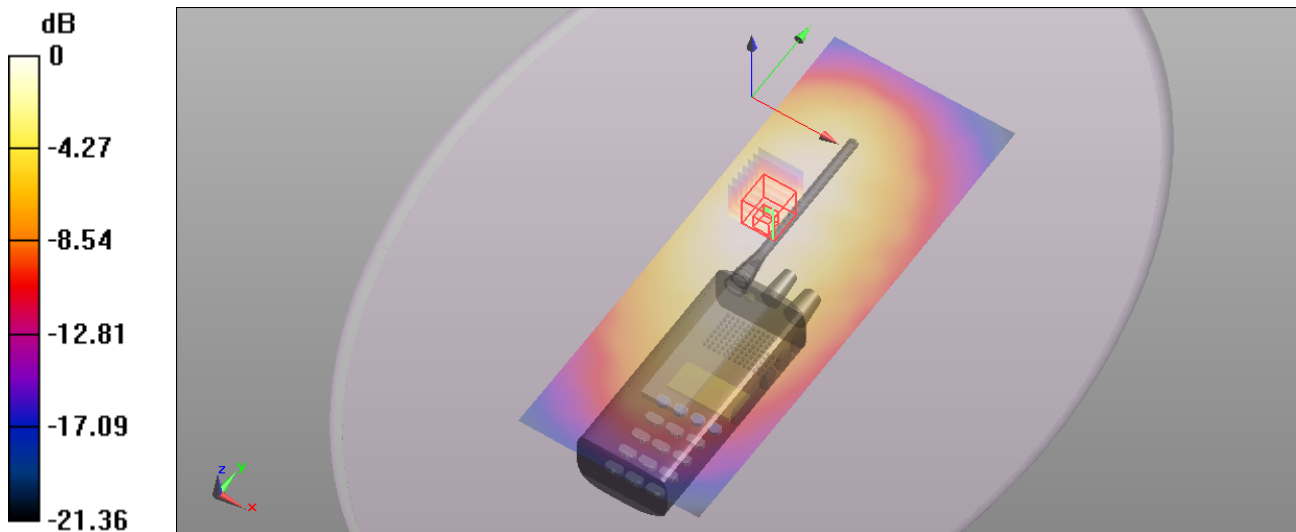
grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 42.855 V/m; Power Drift = -0.08 dB

Peak SAR (extrapolated) = 2.888 mW/g

SAR(1 g) = 1.66 mW/g; SAR(10 g) = 1.16 mW/g

Maximum value of SAR (measured) = 1.74 mW/g



0 dB = 1.73 mW/g = 4.76 dB mW/g

SAR MEASUREMENT PLOT 1

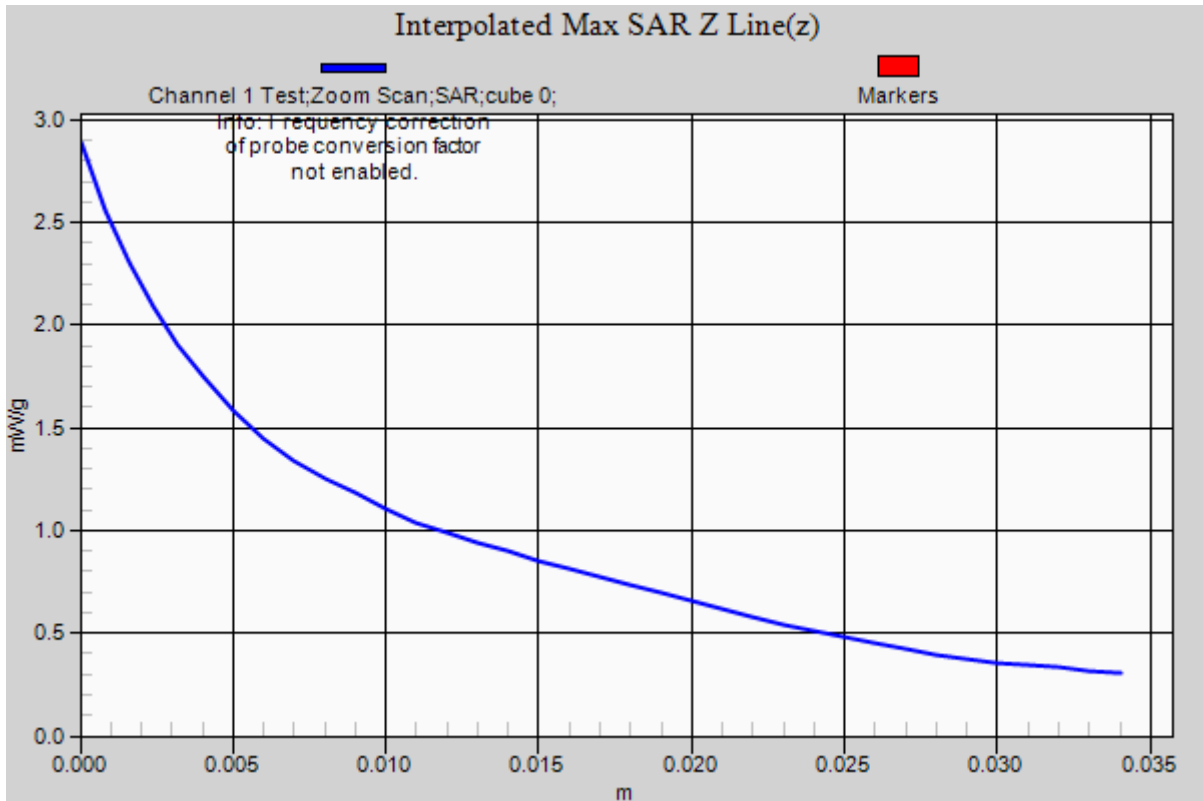
Ambient Temperature
Liquid Temperature
Humidity

20.5 Degrees Celsius
20.3 Degrees Celsius
42.0%



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Test Date: 13 July 2012

File Name: M120704 220 MHz Belt Clip with Holster 13-07-12.da52:0

DUT: SIMOCO PTT; Type: SRP9180 KMA; Serial: ET9KA1210DCMK

* Communication System: PTT; Frequency: 221.075 MHz; Duty Cycle: 1:1

* Medium parameters used: $f = 222 \text{ MHz}$; $\sigma = 0.9 \text{ mho/m}$; $\epsilon_r = 59.826$; $\rho = 1000 \text{ kg/m}^3$

- Electronics: DAE3 Sn442; Probe: ET3DV6 - SN1380; ConvF(7.75, 7.75, 7.75); Calibrated: 16/07/2012

- Phantom: ELI 4.0; Serial: 1101; Phantom section: Flat Section

Configuration/Channel 1 Test/Area Scan (81x211x1): Measurement grid:

$dx=15\text{mm}$, $dy=15\text{mm}$

Maximum value of SAR (interpolated) = 1.60 mW/g

Configuration/Channel 1 Test/Zoom Scan (7x7x7)/Cube 0: Measurement

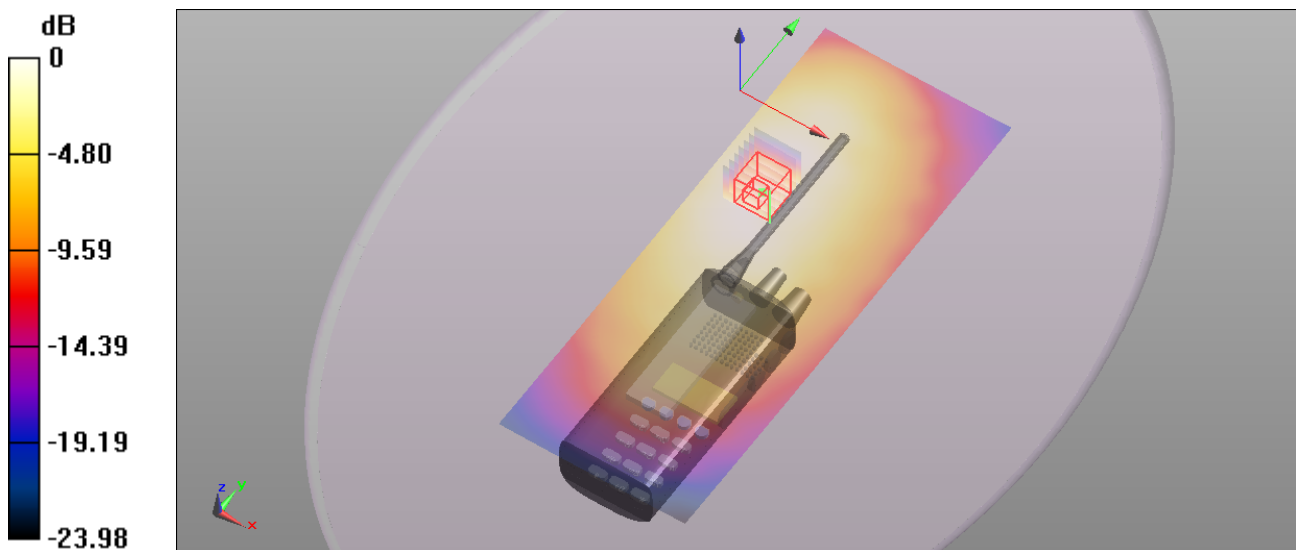
grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 41.565 V/m; Power Drift = -0.16 dB

Peak SAR (extrapolated) = 2.399 mW/g

SAR(1 g) = 1.5 mW/g; SAR(10 g) = 1.07 mW/g

Maximum value of SAR (measured) = 1.56 mW/g



0 dB = 1.60 mW/g = 4.08 dB mW/g

SAR MEASUREMENT PLOT 2

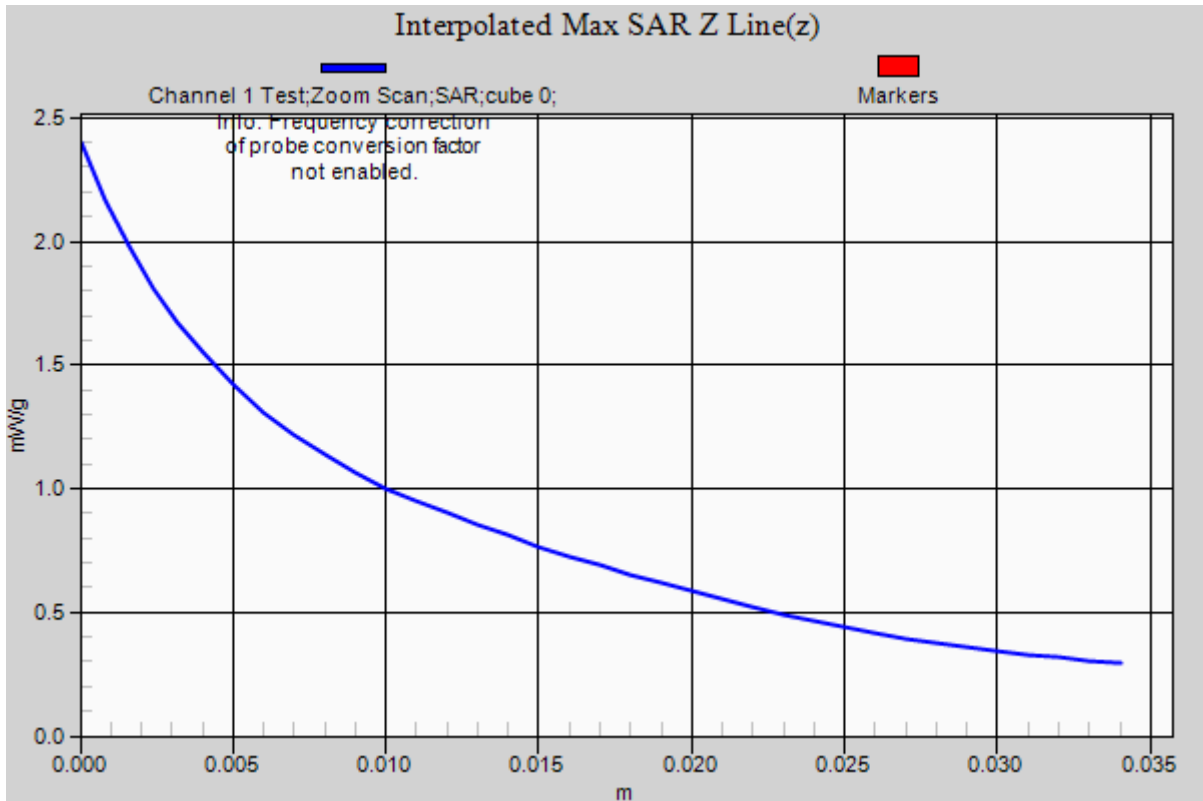
Ambient Temperature
Liquid Temperature
Humidity

20.5 Degrees Celsius
20.3 Degrees Celsius
42.0%



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Test Date: 13 July 2012

File Name: M120704 220 MHz Face Frontal 13-07-12.da52:0

DUT: SIMOCO PTT PTT; Type: SRP9180 KMA; Serial: ET9KA1210DCMK

* Communication System: PTT; Frequency: 221.075 MHz; Duty Cycle: 1:1

* Medium parameters used: $f = 222 \text{ MHz}$; $\sigma = 0.798 \text{ mho/m}$; $\epsilon_r = 47.778$; $\rho = 1000 \text{ kg/m}^3$

- Electronics: DAE3 Sn442; Probe: ET3DV6 - SN1380; ConvF(7.79, 7.79, 7.79); Calibrated: 12/12/2011

- Phantom: ELI 4.0; Serial: 1101; Phantom section: Flat Section

Configuration/Channel 1 Test/Area Scan (81x211x1): Measurement grid:

$dx=15\text{mm}$, $dy=15\text{mm}$

Maximum value of SAR (interpolated) = 1.94 mW/g

Configuration/Channel 1 Test/Zoom Scan (8x8x7)/Cube 0: Measurement

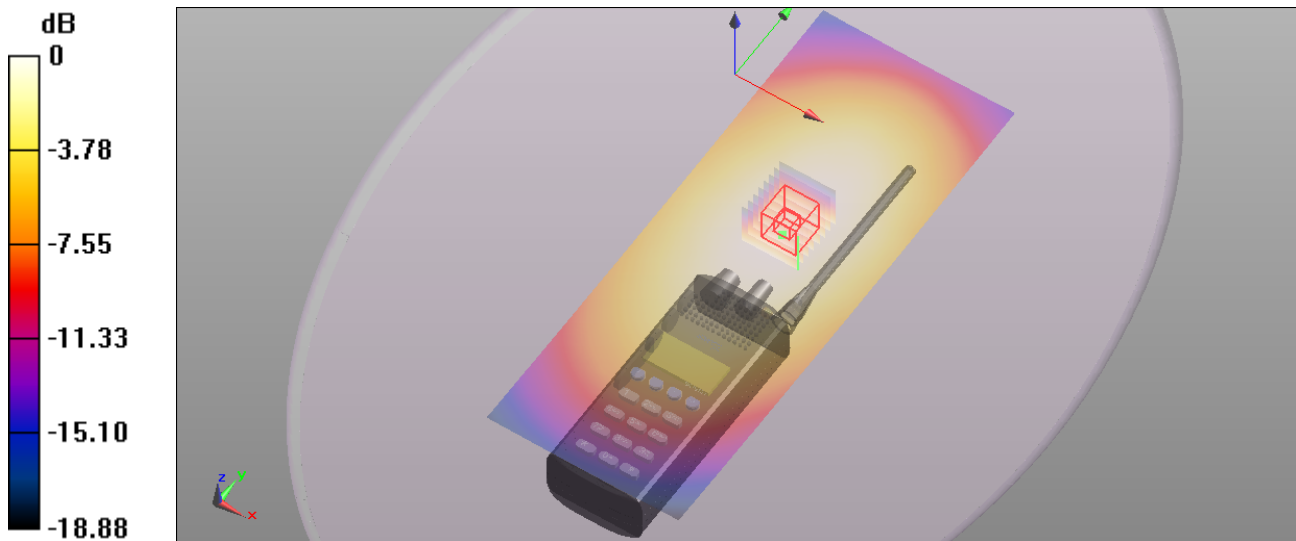
grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 46.894 V/m; Power Drift = -0.02 dB

Peak SAR (extrapolated) = 2.668 mW/g

SAR(1 g) = 1.8 mW/g; SAR(10 g) = 1.34 mW/g

Maximum value of SAR (measured) = 1.88 mW/g



0 dB = 1.94 mW/g = 5.76 dB mW/g

SAR MEASUREMENT PLOT 3

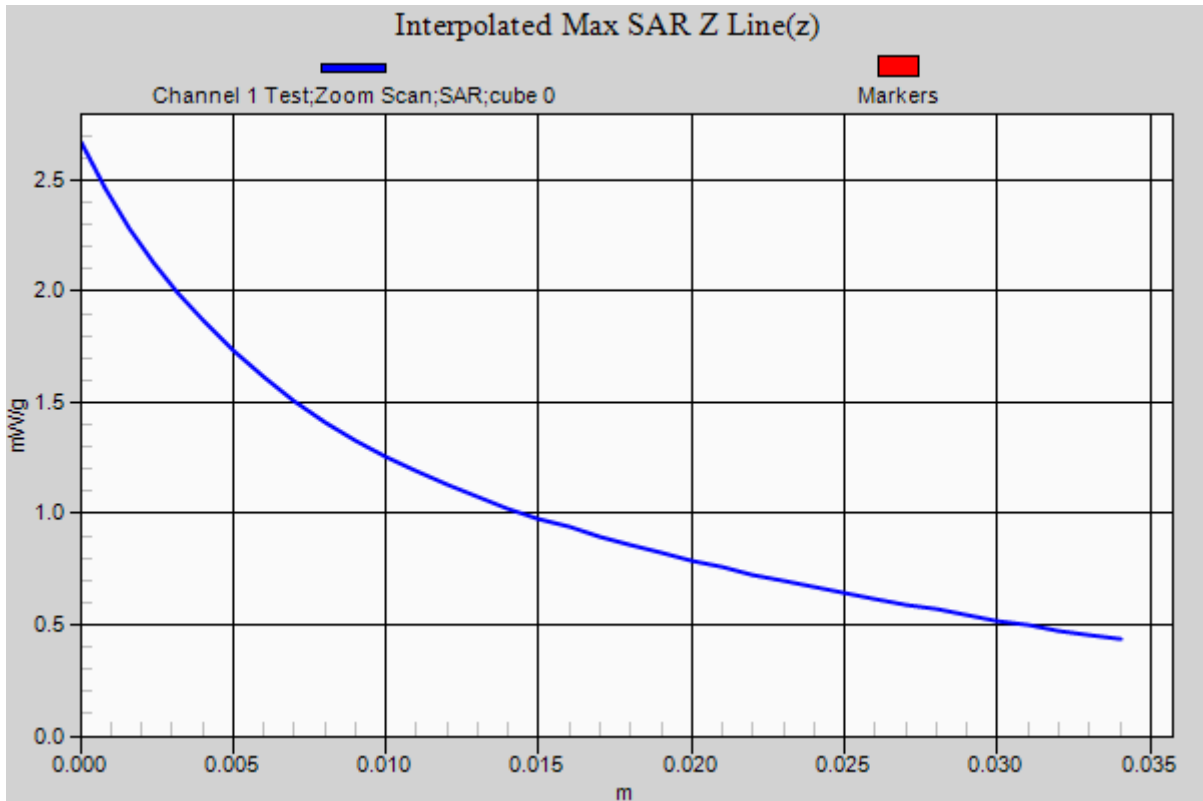
Ambient Temperature
Liquid Temperature
Humidity

20.5 Degrees Celsius
20.3 Degrees Celsius
42.0%



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Test Date: 13 July 2012

File Name: M120704 220 MHz Belt Clip Spk-Mic 13-07-12.da52:0

DUT: SIMOCO PTT PTT RF SPK/MIC; Type: PAR-9180 LMR4; Serial: Prototype

* Communication System: PTT; Frequency: 221.075 MHz; Duty Cycle: 1:1

* Medium parameters used: $f = 222 \text{ MHz}$; $\sigma = 0.9 \text{ mho/m}$; $\epsilon_r = 59.826$; $\rho = 1000 \text{ kg/m}^3$

- Electronics: DAE3 Sn442; Probe: ET3DV6 - SN1380; ConvF(7.75, 7.75, 7.75); Calibrated: 16/07/2012

- Phantom: ELI 4.0; Serial: 1101; Phantom section: Flat Section

Configuration/Channel 1 Test/Area Scan (81x161x1): Measurement grid:

$dx=15\text{mm}$, $dy=15\text{mm}$

Maximum value of SAR (interpolated) = 2.74 mW/g

Configuration/Channel 1 Test/Zoom Scan (7x7x7)/Cube 0: Measurement

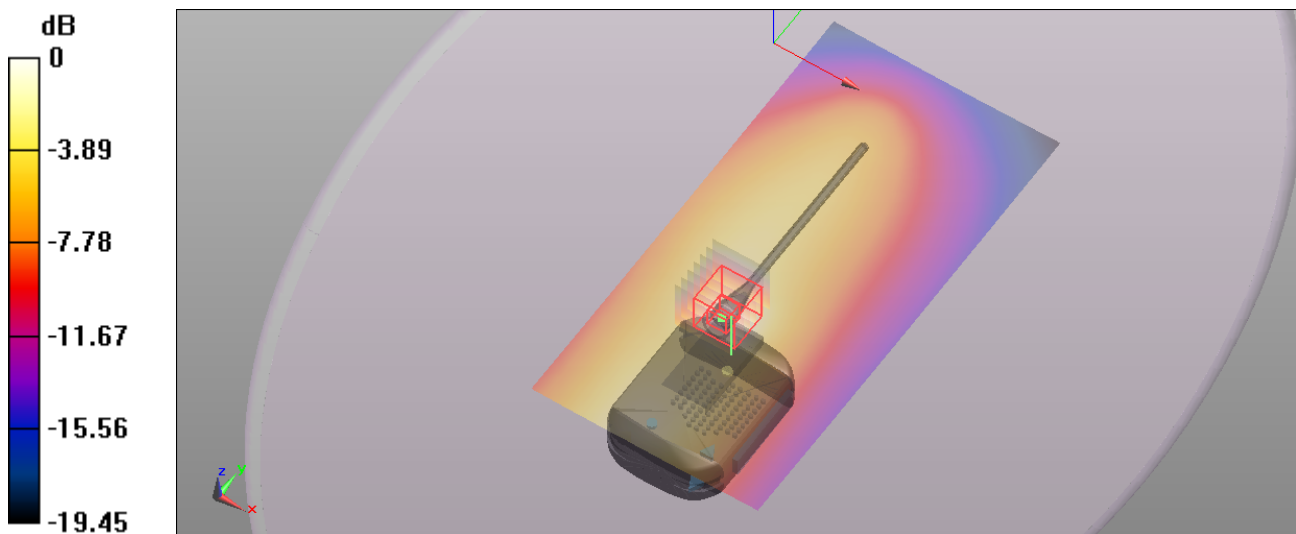
grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 32.920 V/m; Power Drift = -0.19 dB

Peak SAR (extrapolated) = 8.404 mW/g

SAR(1 g) = 2.75 mW/g; SAR(10 g) = 1.45 mW/g

Maximum value of SAR (measured) = 2.75 mW/g



0 dB = 2.74 mW/g = 8.76 dB mW/g

SAR MEASUREMENT PLOT 4

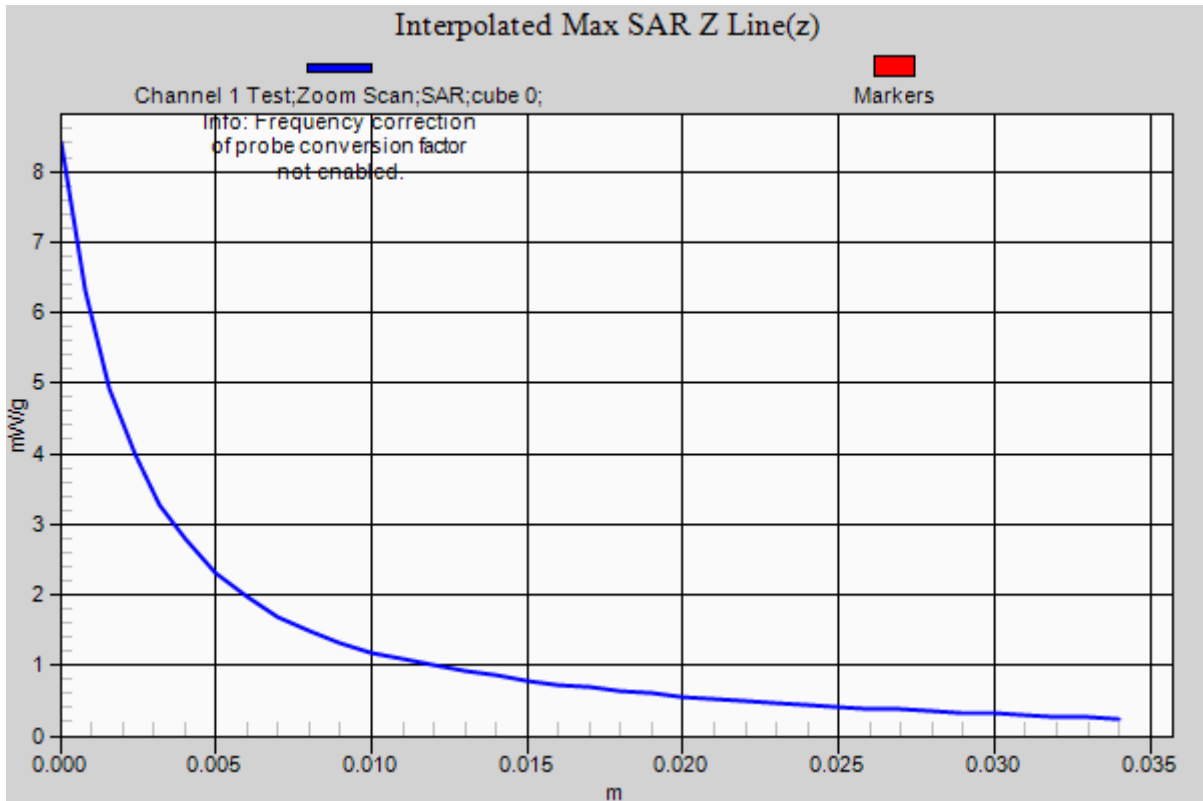
Ambient Temperature
Liquid Temperature
Humidity

20.5 Degrees Celsius
20.3 Degrees Celsius
42.0%



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Test Date: 13 July 2012

File Name: M120704 220 MHz Face Frontal Spk-Mic 13-07-12.da52:0

DUT: **SIMOCO PTT RF SPK/MIC; Type: PAR-9180 LMR4; Serial: Prototype**

* Communication System: PTT; Frequency: 221.075 MHz; Duty Cycle: 1:1

* Medium parameters used: $f = 222 \text{ MHz}$; $\sigma = 0.798 \text{ mho/m}$; $\epsilon_r = 47.778$; $\rho = 1000 \text{ kg/m}^3$

- Electronics: DAE3 Sn442; Probe: ET3DV6 - SN1380; ConvF(7.79, 7.79, 7.79); Calibrated: 12/12/2011

- Phantom: ELI 4.0; Serial: 1101; Phantom section: Flat Section

Configuration/Channel 1 Test/Area Scan (81x161x1): Measurement grid:

$dx=15\text{mm}$, $dy=15\text{mm}$

Maximum value of SAR (interpolated) = 0.536 mW/g

Configuration/Channel 1 Test/Zoom Scan (7x7x7)/Cube 0: Measurement

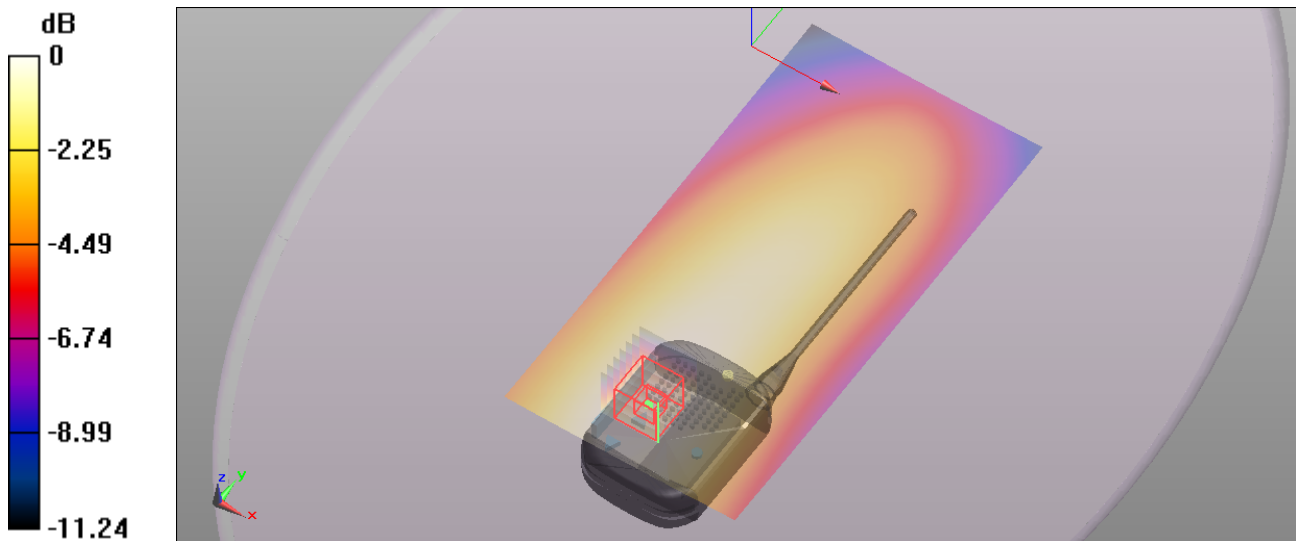
grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 19.413 V/m; Power Drift = -0.18 dB

Peak SAR (extrapolated) = 0.722 mW/g

SAR(1 g) = 0.492 mW/g; SAR(10 g) = 0.368 mW/g

Maximum value of SAR (measured) = 0.511 mW/g



0 dB = 0.536 mW/g = -5.42 dB mW/g

SAR MEASUREMENT PLOT 5

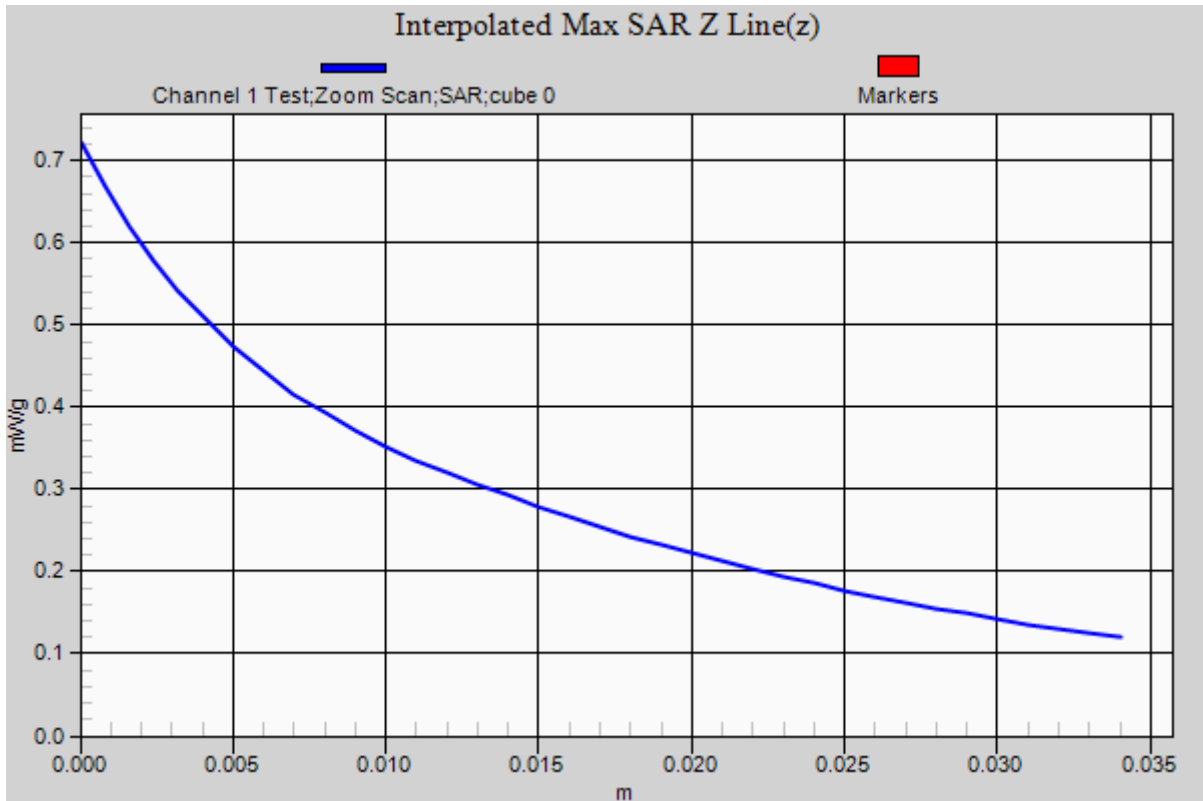
Ambient Temperature
Liquid Temperature
Humidity

20.5 Degrees Celsius
20.3 Degrees Celsius
42.0%



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Test Date: 13 July 2012

File Name: System Check 300 MHz Head 13-07-12.da52:0

DUT: Dipole 300 MHz; Type: D300V3; Serial: 1012

* Communication System: CW 300 MHz; Frequency: 300 MHz; Duty Cycle: 1:1

* Medium parameters used: $f = 300 \text{ MHz}$; $\sigma = 0.865 \text{ mho/m}$; $\epsilon_r = 44.902$; $\rho = 1000 \text{ kg/m}^3$

- Electronics: DAE3 Sn442; Probe: ET3DV6 - SN1380; ConvF(7.79, 7.79, 7.79); Calibrated: 12/12/2011

- Phantom: ELI 4.0; Serial: 1101; Phantom section: Flat Section

Configuration/Channel 1Test/Area Scan (81x111x1): Measurement grid:

$dx=15\text{mm}$, $dy=15\text{mm}$

Maximum value of SAR (interpolated) = 1.26 mW/g

Configuration/Channel 1Test/Zoom Scan (7x7x7)/Cube 0: Measurement grid:

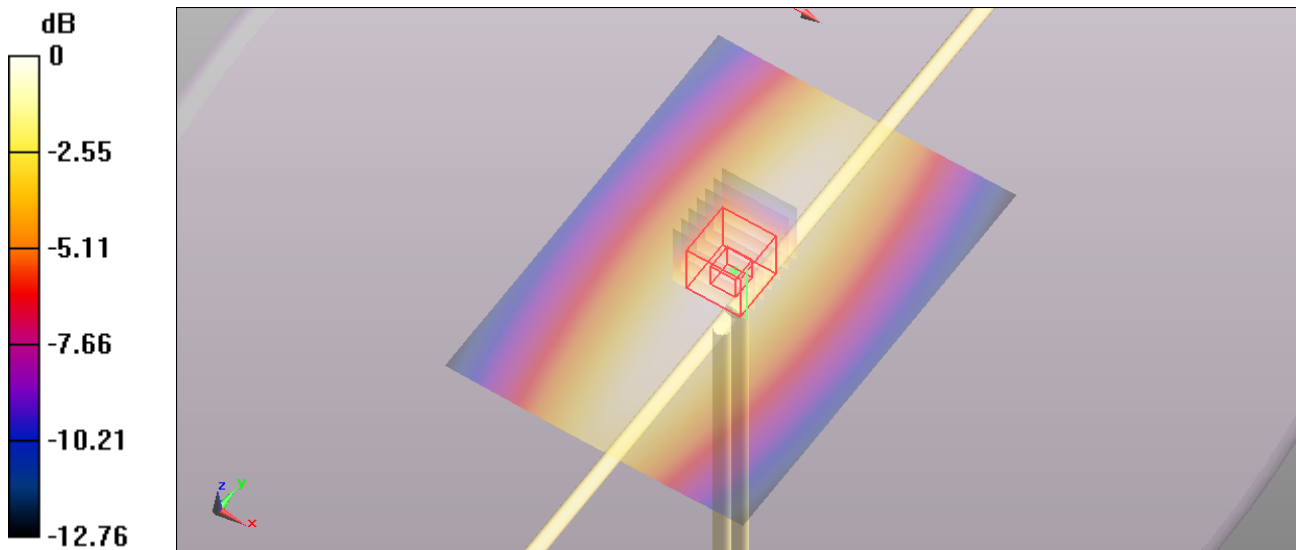
$dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 38.722 V/m; Power Drift = -0.12 dB

Peak SAR (extrapolated) = 1.950 mW/g

SAR(1 g) = 1.19 mW/g; SAR(10 g) = 0.790 mW/g

Maximum value of SAR (measured) = 1.25 mW/g



0 dB = 1.26 mW/g = 2.01 dB mW/g

SAR MEASUREMENT PLOT 6

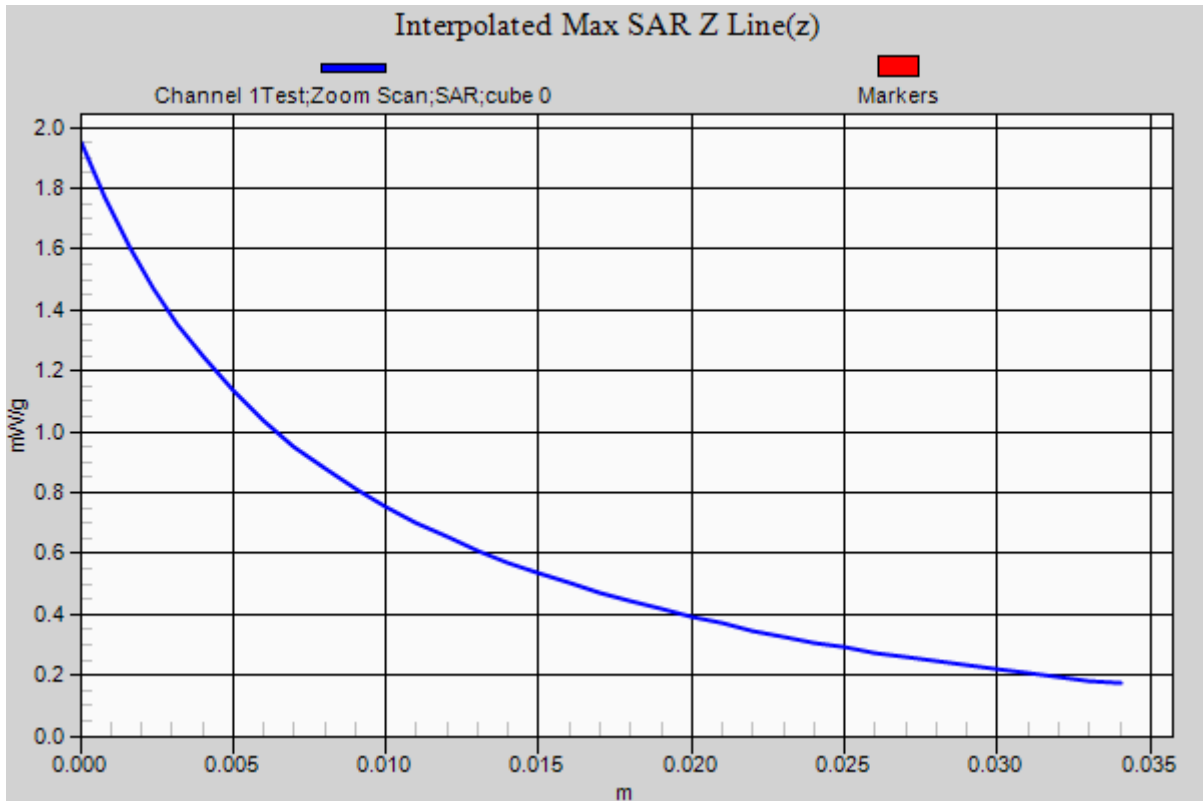
Ambient Temperature
Liquid Temperature
Humidity

20.5 Degrees Celsius
20.3 Degrees Celsius
42.0%



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