

Test Report S/N:	050504-505ATH
Test Date(s):	May 23, 25-29, June 10-11, 2004
Test Type:	FCC/IC SAR Evaluation

APPENDIX A - SAR MEASUREMENT DATA

Face-Held SAR - NiMH Battery - Whip Antenna (P/N: 501-0105-013)

Date Tested: 05/23/04

DUT: EF Johnson Model: 242-5172; Type: Portable FM PTT Radio Transceiver; Serial: 51720A000A 00001

Ambient Temp: 23.5 °C; Fluid Temp: 21.5 °C; Barometric Pressure: 102.5 kPa; Humidity: 37%

Communication System: FM Transmit Talk-Around

RF Output Power: 34.88 dBm (Conducted)

Frequency: 769.0125 MHz; Duty Cycle: 1:1

7.5V 3600mAh NiMH Battery Pack (P/N: 587-5100-360)

Medium: HSL769 ($\sigma = 0.85$ mho/m; $\epsilon_r = 42.3$; $\rho = 1000$ kg/m³)

- Probe: ET3DV6 - SN1387; ConvF(6.71, 6.71, 6.71); Calibrated: 18/03/2004
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn353; Calibrated: 19/12/2003
- Phantom: Planar; Type: Plexiglas; Serial: 161
- Measurement SW: DASY4, V4.2 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 112

Face-Held - 2.5 cm Separation Distance - Mid Channel/Area Scan (8x25x1):

Measurement grid: dx=15mm, dy=15mm

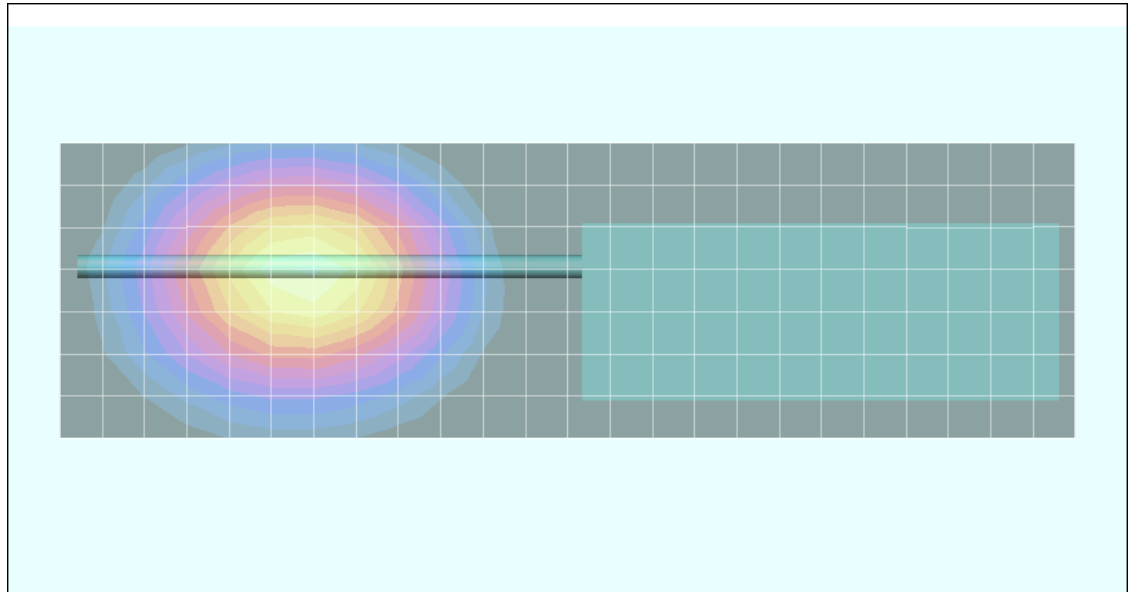
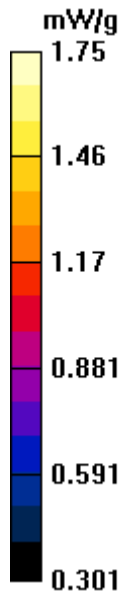
Face-Held - 2.5 cm Separation Distance - Mid Channel/Zoom Scan (5x5x7)/Cube 0:

Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 12.8 V/m; Power Drift = -0.400 dB

Peak SAR (extrapolated) = 2.06 W/kg

SAR(1 g) = 1.61 mW/g; SAR(10 g) = 1.2 mW/g



Face-Held SAR - Alkaline Battery Pack (Duracell Procell) - Whip Antenna (P/N: 501-0105-013)

Date Tested: 05/23/04

DUT: EF Johnson Model: 242-5172; Type: Portable FM PTT Radio Transceiver; Serial: 51720A000A 00001

Ambient Temp: 23.5 °C; Fluid Temp: 21.5 °C; Barometric Pressure: 102.5 kPa; Humidity: 37%

Communication System: FM Transmit Talk-Around

RF Output Power: 34.87 dBm (Conducted)

Frequency: 769.0125 MHz; Duty Cycle: 1:1

9V AA Alkaline Duracell ProCell Battery Pack (Battery Case P/N: 250-5100-280)

Medium: HSL769 ($\sigma = 0.85$ mho/m; $\epsilon_r = 42.3$; $\rho = 1000$ kg/m³)

- Probe: ET3DV6 - SN1387; ConvF(6.71, 6.71, 6.71); Calibrated: 18/03/2004
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn353; Calibrated: 19/12/2003
- Phantom: Planar; Type: Plexiglas; Serial: 161
- Measurement SW: DASy4, V4.2 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 112

Face-Held - 2.5 cm Separation Distance - Mid Channel/Area Scan (8x27x1):

Measurement grid: dx=15mm, dy=15mm

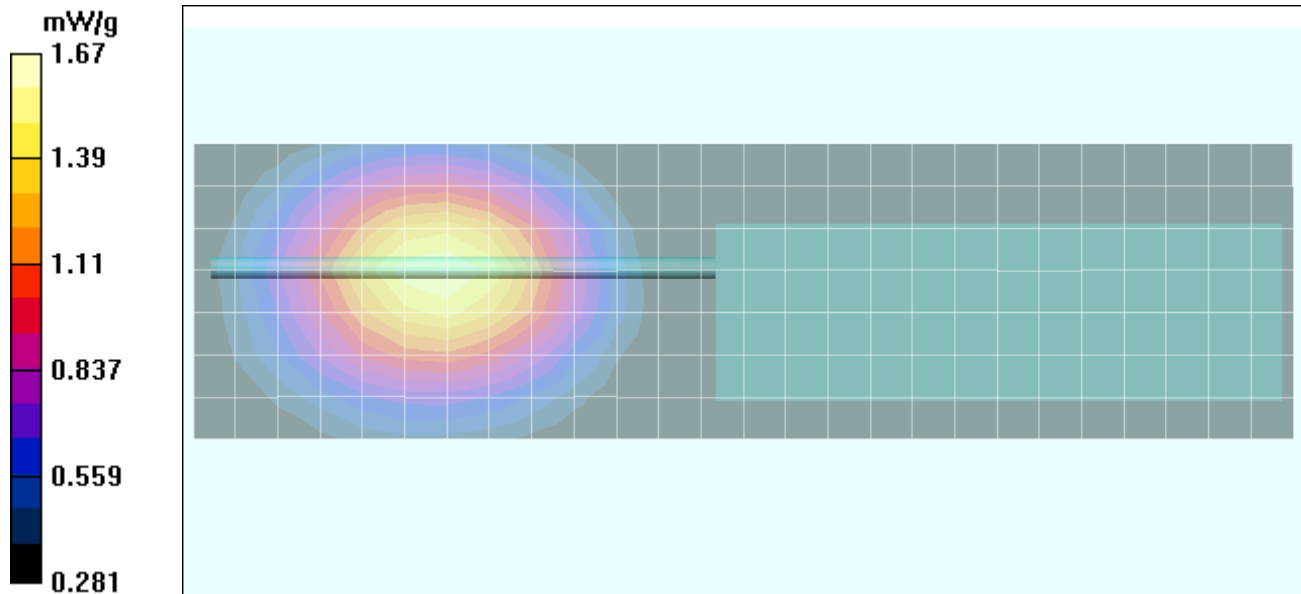
Face-Held - 2.5 cm Separation Distance - Mid Channel/Zoom Scan (5x5x7)/Cube 0:

Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 12.8 V/m; Power Drift = -0.398 dB

Peak SAR (extrapolated) = 2.02 W/kg

SAR(1 g) = 1.58 mW/g; SAR(10 g) = 1.18 mW/g



Face-Held SAR - NiMH Battery - Whip Antenna (P/N: 501-0105-013)

Date Tested: 05/23/04

DUT: EF Johnson Model: 242-5172; Type: Portable FM PTT Radio Transceiver; Serial: 51720A000A 00001

Ambient Temp: 23.5 °C; Fluid Temp: 21.5 °C; Barometric Pressure: 102.5 kPa; Humidity: 37%

Communication System: FM Transmit

RF Output Power: 34.89 dBm (Conducted)

Frequency: 799.0125 MHz; Duty Cycle: 1:1

7.5V 3600mAh NiMH Battery Pack (P/N: 587-5100-360)

Medium: HSL799 ($\sigma = 0.88$ mho/m; $\epsilon_r = 42.0$; $\rho = 1000$ kg/m³)

- Probe: ET3DV6 - SN1387; ConvF(6.71, 6.71, 6.71); Calibrated: 18/03/2004
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn353; Calibrated: 19/12/2003
- Phantom: Planar; Type: Plexiglas; Serial: 161
- Measurement SW: DASY4, V4.2 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 112

Face-Held - 2.5 cm Separation Distance - Mid Channel/Area Scan (8x25x1):

Measurement grid: dx=15mm, dy=15mm

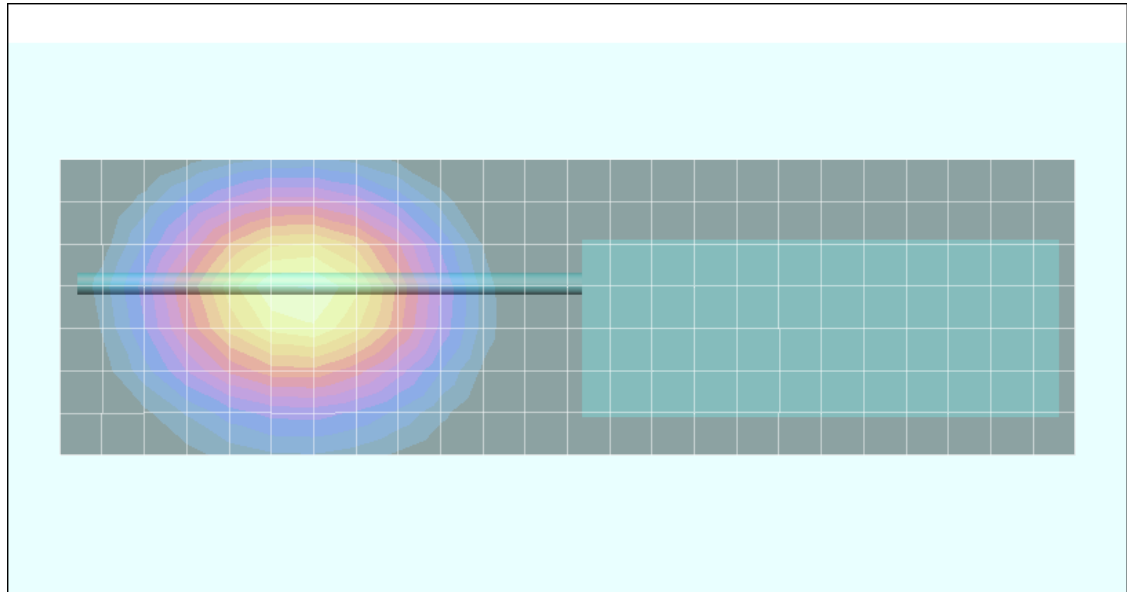
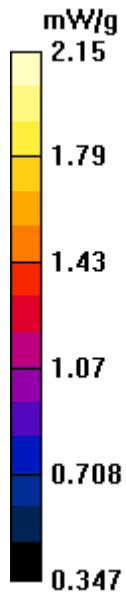
Face-Held - 2.5 cm Separation Distance - Mid Channel/Zoom Scan (5x5x7)/Cube 0:

Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 12.1 V/m; Power Drift = -0.765 dB

Peak SAR (extrapolated) = 2.62 W/kg

SAR(1 g) = 2.04 mW/g; SAR(10 g) = 1.51 mW/g



Face-Held SAR - Alkaline Battery Pack (Duracell Procell) - Whip Antenna (P/N: 501-0105-013)

Date Tested: 05/23/04

DUT: EF Johnson Model: 242-5172; Type: Portable FM PTT Radio Transceiver; Serial: 51720A000A 00001

Ambient Temp: 23.5 °C; Fluid Temp: 21.5 °C; Barometric Pressure: 102.5 kPa; Humidity: 37%

Communication System: FM Transmit

RF Output Power: 34.83 dBm (Conducted)

Frequency: 799.0125 MHz; Duty Cycle: 1:1

9V AA Alkaline Duracell ProCell Battery Pack (Battery Case P/N: 250-5100-280)

Medium: HSL799 ($\sigma = 0.88$ mho/m; $\epsilon_r = 42.0$; $\rho = 1000$ kg/m³)

- Probe: ET3DV6 - SN1387; ConvF(6.71, 6.71, 6.71); Calibrated: 18/03/2004
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn353; Calibrated: 19/12/2003
- Phantom: Planar; Type: Plexiglas; Serial: 161
- Measurement SW: DASY4, V4.2 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 112

Face-Held - 2.5 cm Separation Distance - Mid Channel/Area Scan (8x27x1):

Measurement grid: dx=15mm, dy=15mm

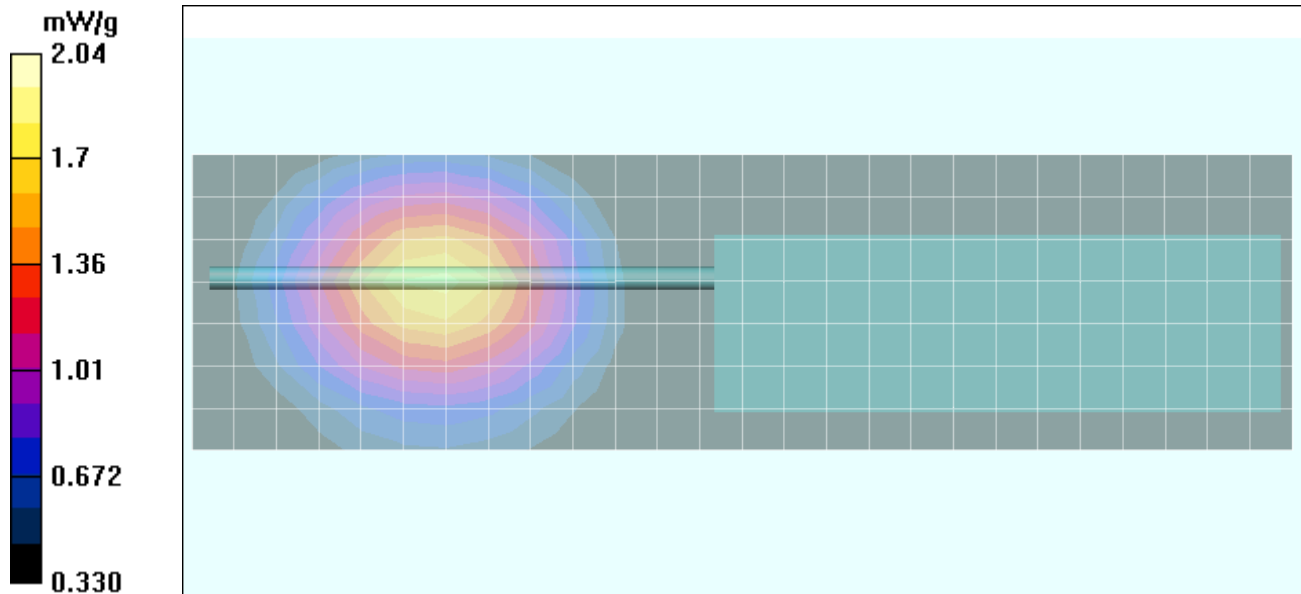
Face-Held - 2.5 cm Separation Distance - Mid Channel/Zoom Scan (5x5x7)/Cube 0:

Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 14.5 V/m; Power Drift = -1.22 dB

Peak SAR (extrapolated) = 2.49 W/kg

SAR(1 g) = 1.94 mW/g; SAR(10 g) = 1.44 mW/g



Face-Held SAR - NiMH Battery - Whip Antenna (P/N: 501-0105-013)

Date Tested: 05/23/04

DUT: EF Johnson Model: 242-5172; Type: Portable FM PTT Radio Transceiver; Serial: 51720A000A 00001

Ambient Temp: 23.5 °C; Fluid Temp: 21.5 °C; Barometric Pressure: 102.5 kPa; Humidity: 37%

Communication System: FM Transmit

RF Output Power: 35.20 dBm (Conducted)

Frequency: 814.5125 MHz; Duty Cycle: 1:1

7.5V 3600mAh NiMH Battery Pack (P/N: 587-5100-360)

Medium: HSL815 ($\sigma = 0.89$ mho/m; $\epsilon_r = 41.4$; $\rho = 1000$ kg/m³)

- Probe: ET3DV6 - SN1387; ConvF(6.71, 6.71, 6.71); Calibrated: 18/03/2004
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn353; Calibrated: 19/12/2003
- Phantom: Planar; Type: Plexiglas; Serial: 161
- Measurement SW: DASY4, V4.2 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 112

Face-Held - 2.5 cm Separation Distance - Mid Channel/Area Scan (8x25x1):

Measurement grid: dx=15mm, dy=15mm

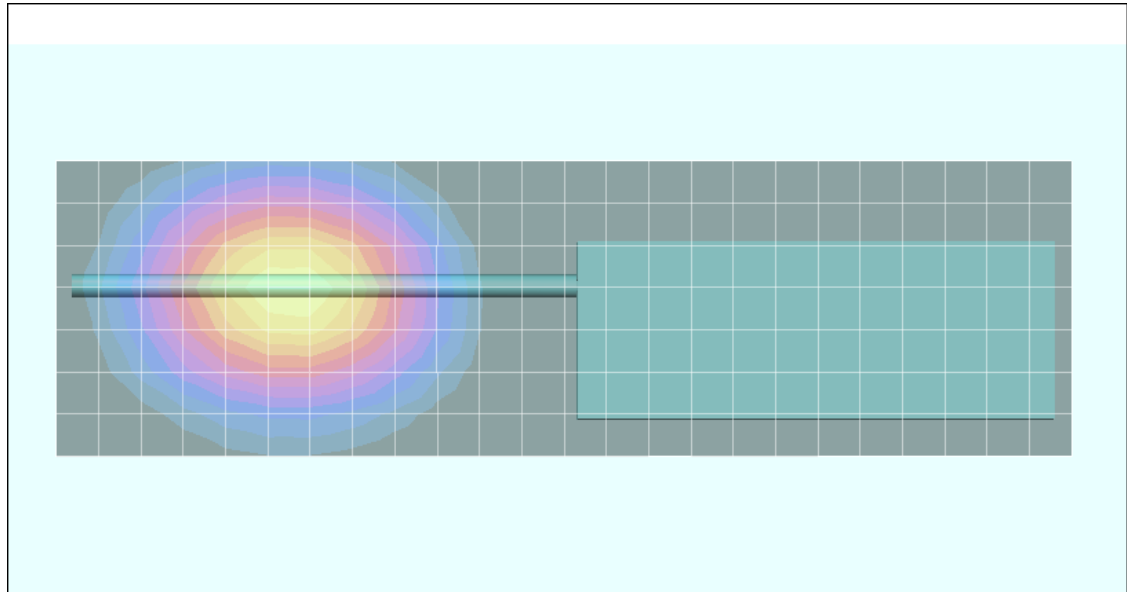
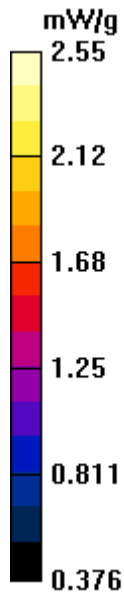
Face-Held - 2.5 cm Separation Distance - Mid Channel/Zoom Scan (5x5x7)/Cube 0:

Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 12.9 V/m; Power Drift = -0.965 dB

Peak SAR (extrapolated) = 3.13 W/kg

SAR(1 g) = 2.42 mW/g; SAR(10 g) = 1.79 mW/g



Face-Held SAR - Alkaline Battery Pack (Duracell Procell) - Whip Antenna (P/N: 501-0105-013)

Date Tested: 05/23/04

DUT: EF Johnson Model: 242-5172; Type: Portable FM PTT Radio Transceiver; Serial: 51720A000A 00001

Ambient Temp: 23.5 °C; Fluid Temp: 21.5 °C; Barometric Pressure: 102.5 kPa; Humidity: 37%

Communication System: FM Transmit

RF Output Power: 35.22 dBm (Conducted)

Frequency: 814.5125 MHz; Duty Cycle: 1:1

9V AA Alkaline Duracell ProCell Battery Pack (Battery Case P/N: 250-5100-280)

Medium: HSL815 ($\sigma = 0.89$ mho/m; $\epsilon_r = 41.4$; $\rho = 1000$ kg/m³)

- Probe: ET3DV6 - SN1387; ConvF(6.71, 6.71, 6.71); Calibrated: 18/03/2004
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn353; Calibrated: 19/12/2003
- Phantom: Planar; Type: Plexiglas; Serial: 161
- Measurement SW: DASy4, V4.2 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 112

Face-Held - 2.5 cm Separation Distance - Mid Channel/Area Scan (8x27x1):

Measurement grid: dx=15mm, dy=15mm

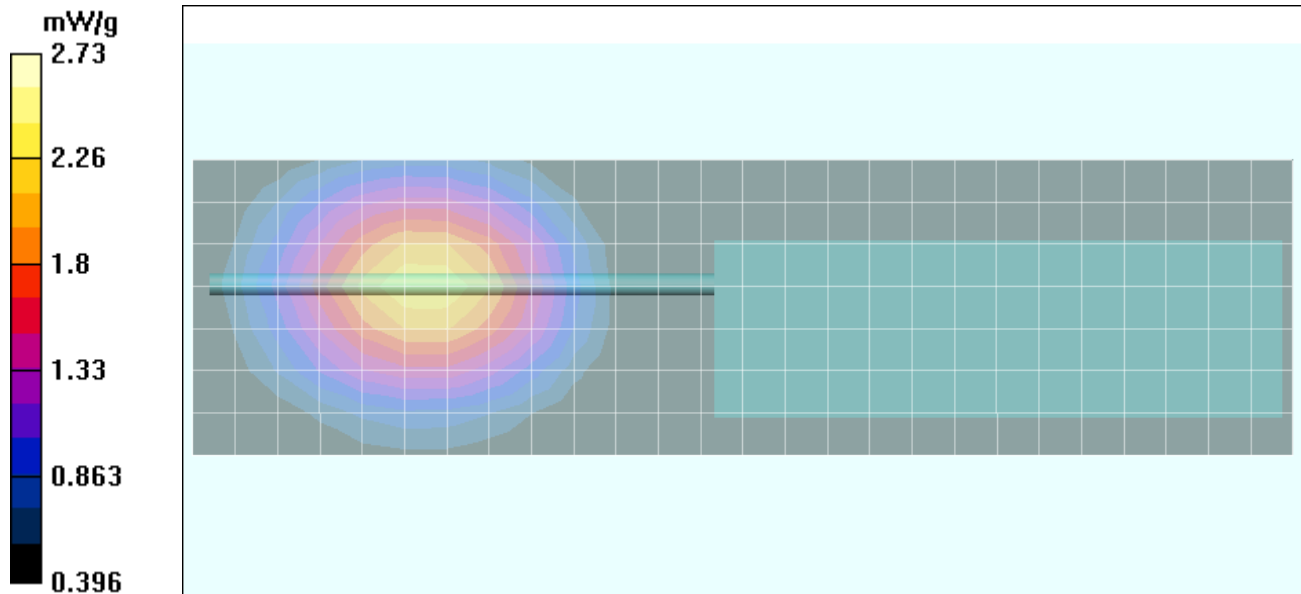
Face-Held - 2.5 cm Separation Distance - Mid Channel/Zoom Scan (5x5x7)/Cube 0:

Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

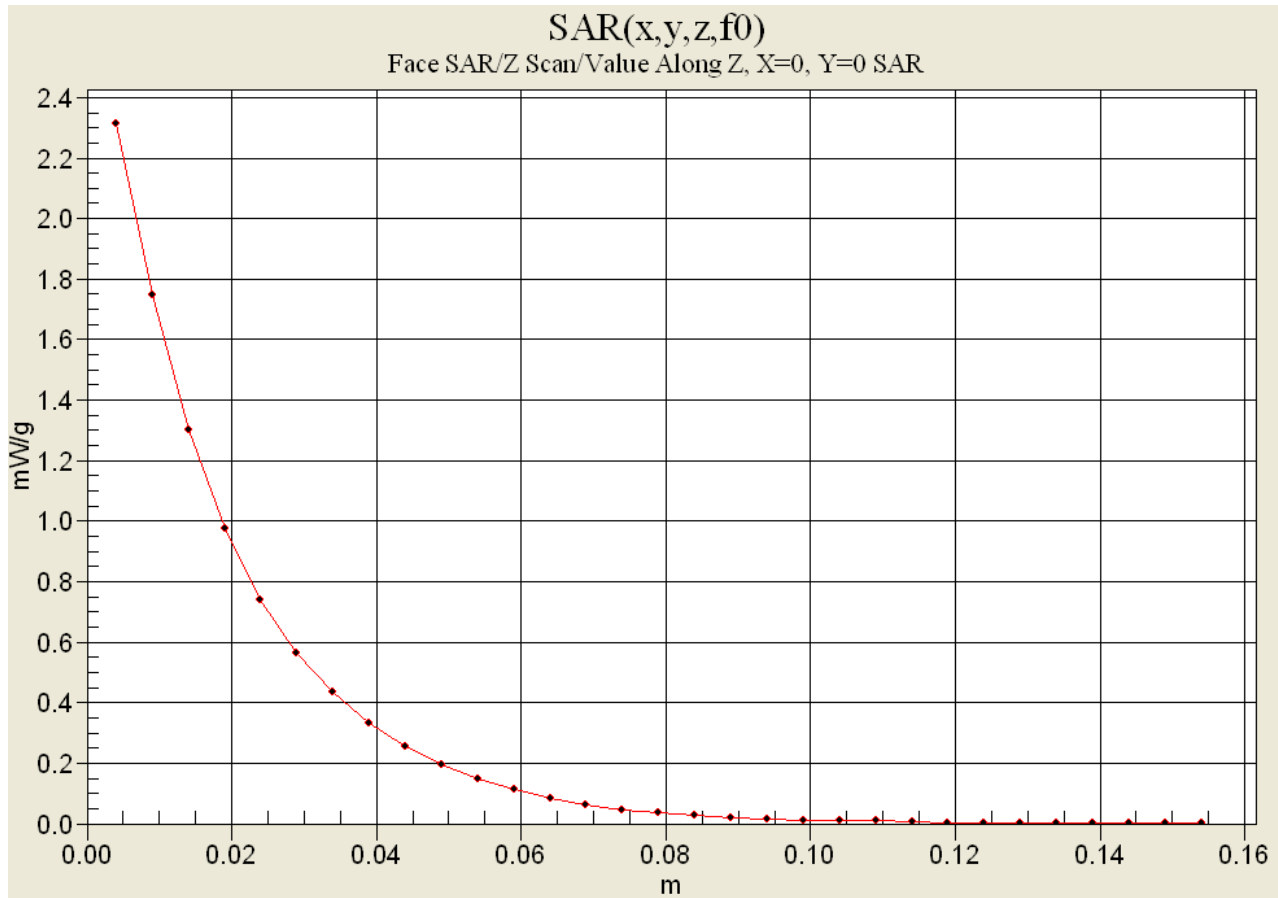
Reference Value = 12.5 V/m; Power Drift = -1.42 dB

Peak SAR (extrapolated) = 3.38 W/kg

SAR(1 g) = 2.59 mW/g; SAR(10 g) = 1.91 mW/g



Z-Axis Scan



Face-Held SAR - NiMH Battery - Whip Antenna (P/N: 501-0105-013)

Date Tested: 05/23/04

DUT: EF Johnson Model: 242-5172; Type: Portable FM PTT Radio Transceiver; Serial: 51720A000A 00001

Ambient Temp: 23.5 °C; Fluid Temp: 21.5 °C; Barometric Pressure: 102.5 kPa; Humidity: 37%

Communication System: FM Transmit Talk-Around

RF Output Power: 35.24 dBm (Conducted)

Frequency: 859.5125 MHz; Duty Cycle: 1:1

7.5V 3600mAh NiMH Battery Pack (P/N: 587-5100-360)

Medium: HSL860 ($\sigma = 0.93$ mho/m; $\epsilon_r = 40.8$; $\rho = 1000$ kg/m³)

- Probe: ET3DV6 - SN1387; ConvF(6.71, 6.71, 6.71); Calibrated: 18/03/2004
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn353; Calibrated: 19/12/2003
- Phantom: Planar; Type: Plexiglas; Serial: 161
- Measurement SW: DASy4, V4.2 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 112

Face-Held - 2.5 cm Separation Distance - Mid Channel/Area Scan (8x25x1):

Measurement grid: dx=15mm, dy=15mm

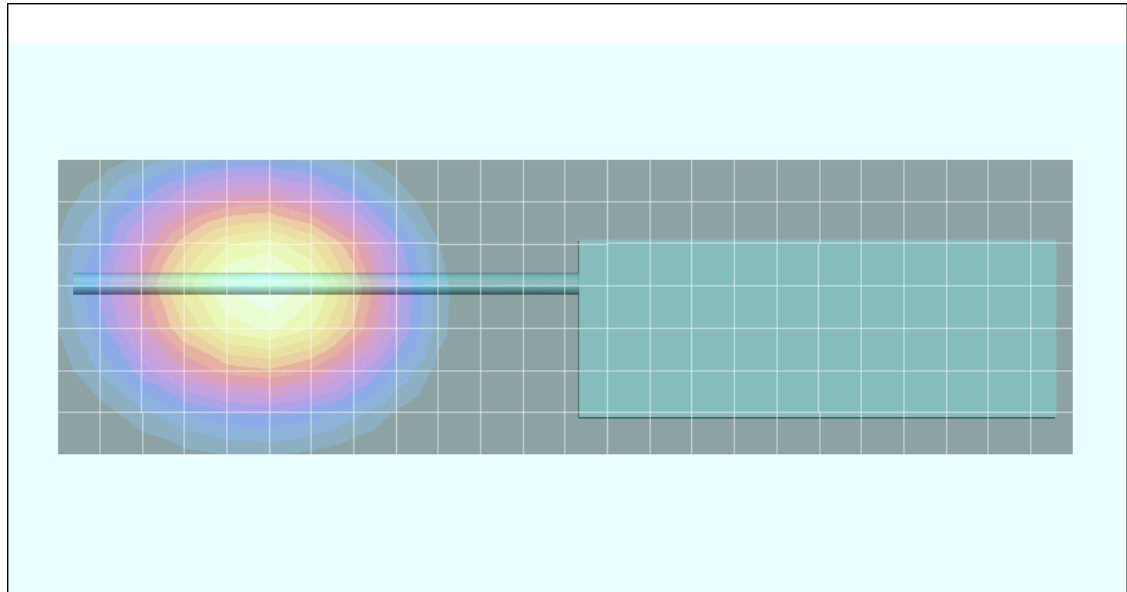
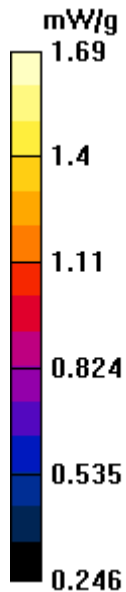
Face-Held - 2.5 cm Separation Distance - Mid Channel/Zoom Scan (5x5x7)/Cube 0:

Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 8.33 V/m; Power Drift = -0.122 dB

Peak SAR (extrapolated) = 2.07 W/kg

SAR(1 g) = 1.60 mW/g; SAR(10 g) = 1.17 mW/g



Face-Held SAR - Alkaline Battery Pack (Duracell Procell) - Whip Antenna (P/N: 501-0105-013)

Date Tested: 05/23/04

DUT: EF Johnson Model: 242-5172; Type: Portable FM PTT Radio Transceiver; Serial: 51720A000A 00001

Ambient Temp: 23.5 °C; Fluid Temp: 21.5 °C; Barometric Pressure: 102.5 kPa; Humidity: 37%

Communication System: FM Transmit Talk-Around

RF Output Power: 35.23 dBm (Conducted)

Frequency: 859.5125 MHz; Duty Cycle: 1:1

9V AA Alkaline Duracell ProCell Battery Pack (Battery Case P/N: 250-5100-280)

Medium: HSL860 ($\sigma = 0.93$ mho/m; $\epsilon_r = 40.8$; $\rho = 1000$ kg/m³)

- Probe: ET3DV6 - SN1387; ConvF(6.71, 6.71, 6.71); Calibrated: 18/03/2004
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn353; Calibrated: 19/12/2003
- Phantom: Planar; Type: Plexiglas; Serial: 161
- Measurement SW: DASY4, V4.2 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 112

Face-Held - 2.5 cm Separation Distance - Mid Channel/Area Scan (8x27x1):

Measurement grid: dx=15mm, dy=15mm

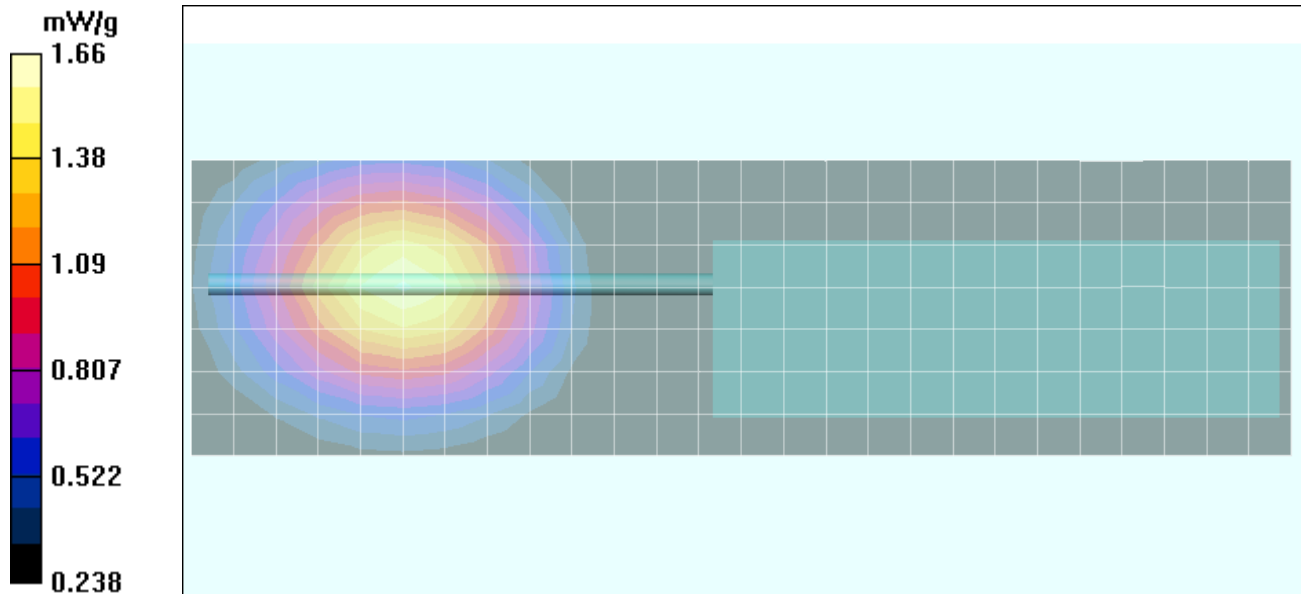
Face-Held - 2.5 cm Separation Distance - Mid Channel/Zoom Scan (5x5x7)/Cube 0:

Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 8.61 V/m; Power Drift = -0.104 dB

Peak SAR (extrapolated) = 2.05 W/kg

SAR(1 g) = 1.58 mW/g; SAR(10 g) = 1.16 mW/g



Face-Held SAR - NiMH Battery - Stubby Antenna (P/N: 501-0105-012)

Date Tested: 05/25/04

DUT: EF Johnson Model: 242-5172; Type: Portable FM PTT Radio Transceiver; Serial: 51720A000A 00001

Ambient Temp: 22.9 °C; Fluid Temp: 21.2 °C; Barometric Pressure: 102.1 kPa; Humidity: 40%

Communication System: FM Transmit Talk-Around

RF Output Power: 34.83 dBm (Conducted)

Frequency: 769.0125 MHz; Duty Cycle: 1:1

7.5V 3600mAh NiMH Battery Pack (P/N: 587-5100-360)

Medium: HSL769 ($\sigma = 0.85$ mho/m; $\epsilon_r = 42.1$; $\rho = 1000$ kg/m³)

- Probe: ET3DV6 - SN1387; ConvF(6.71, 6.71, 6.71); Calibrated: 18/03/2004
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn353; Calibrated: 19/12/2003
- Phantom: Planar; Type: Plexiglas; Serial: 161
- Measurement SW: DASY4, V4.2 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 112

Face-Held - 2.5 cm Separation Distance - Mid Channel/Area Scan (8x19x1):

Measurement grid: dx=15mm, dy=15mm

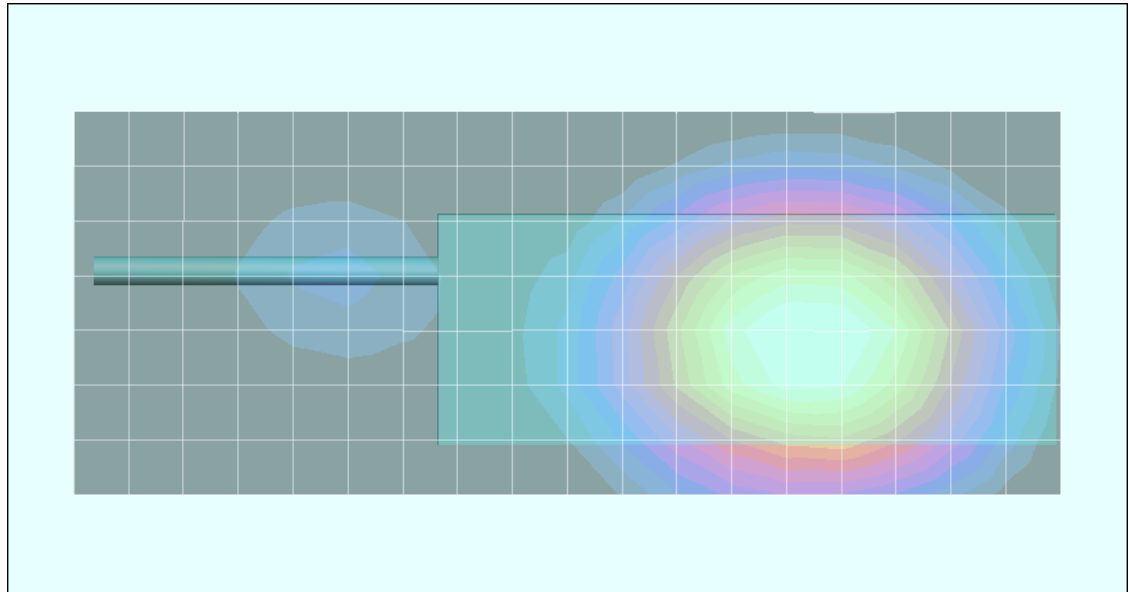
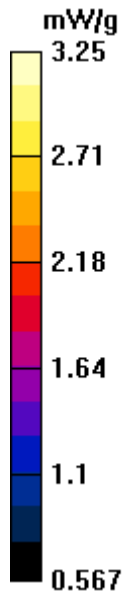
Face-Held - 2.5 cm Separation Distance - Mid Channel/Zoom Scan (5x5x7)/Cube 0:

Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 31.5 V/m; Power Drift = -0.422 dB

Peak SAR (extrapolated) = 3.9 W/kg

SAR(1 g) = 3.07 mW/g; SAR(10 g) = 2.3 mW/g



Face-Held SAR - Alkaline Battery Pack (Duracell Procell) - Stubby Antenna (P/N: 501-0105-012)

Date Tested: 05/25/04

DUT: EF Johnson Model: 242-5172; Type: Portable FM PTT Radio Transceiver; Serial: 51720A000A 00001

Ambient Temp: 22.9 °C; Fluid Temp: 21.2 °C; Barometric Pressure: 102.1 kPa; Humidity: 40%

Communication System: FM Transmit Talk-Around

RF Output Power: 34.75 dBm (Conducted)

Frequency: 769.0125 MHz; Duty Cycle: 1:1

9V AA Alkaline Duracell ProCell Battery Pack (Battery Case P/N: 250-5100-280)

Medium: HSL769 ($\sigma = 0.85$ mho/m; $\epsilon_r = 42.1$; $\rho = 1000$ kg/m³)

- Probe: ET3DV6 - SN1387; ConvF(6.71, 6.71, 6.71); Calibrated: 18/03/2004
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn353; Calibrated: 19/12/2003
- Phantom: Planar; Type: Plexiglas; Serial: 161
- Measurement SW: DASY4, V4.2 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 112

Face-Held - 2.5 cm Separation Distance - Mid Channel/Area Scan (8x21x1):

Measurement grid: dx=15mm, dy=15mm

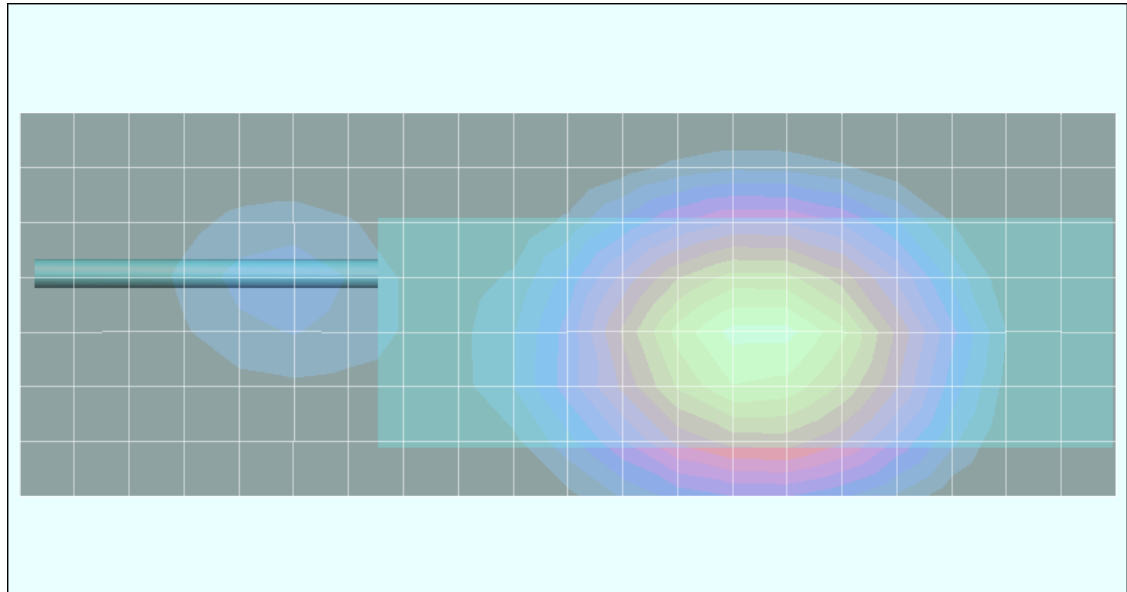
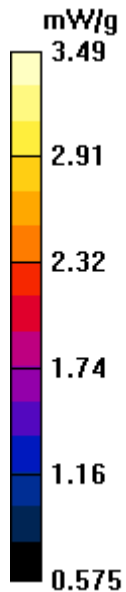
Face-Held - 2.5 cm Separation Distance - Mid Channel/Zoom Scan (5x5x7)/Cube 0:

Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 34.7 V/m; Power Drift = -0.799 dB

Peak SAR (extrapolated) = 4.22 W/kg

SAR(1 g) = 3.32 mW/g; SAR(10 g) = 2.49 mW/g



Face-Held SAR - NiMH Battery - Stubby Antenna (P/N: 501-0105-012)

Date Tested: 05/25/04

DUT: EF Johnson Model: 242-5172; Type: Portable FM PTT Radio Transceiver; Serial: 51720A000A 00001

Ambient Temp: 22.9 °C; Fluid Temp: 21.2 °C; Barometric Pressure: 102.1 kPa; Humidity: 40%

Communication System: FM Transmit

RF Output Power: 34.82 dBm (Conducted)

Frequency: 799.0125 MHz; Duty Cycle: 1:1

7.5V 3600mAh NiMH Battery Pack (P/N: 587-5100-360)

Medium: HSL799 ($\sigma = 0.88$ mho/m; $\epsilon_r = 41.8$; $\rho = 1000$ kg/m³)

- Probe: ET3DV6 - SN1387; ConvF(6.71, 6.71, 6.71); Calibrated: 18/03/2004
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn353; Calibrated: 19/12/2003
- Phantom: Planar; Type: Plexiglas; Serial: 161
- Measurement SW: DASY4, V4.2 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 112

Face-Held - 2.5 cm Separation Distance - Mid Channel/Area Scan (8x19x1):

Measurement grid: dx=15mm, dy=15mm

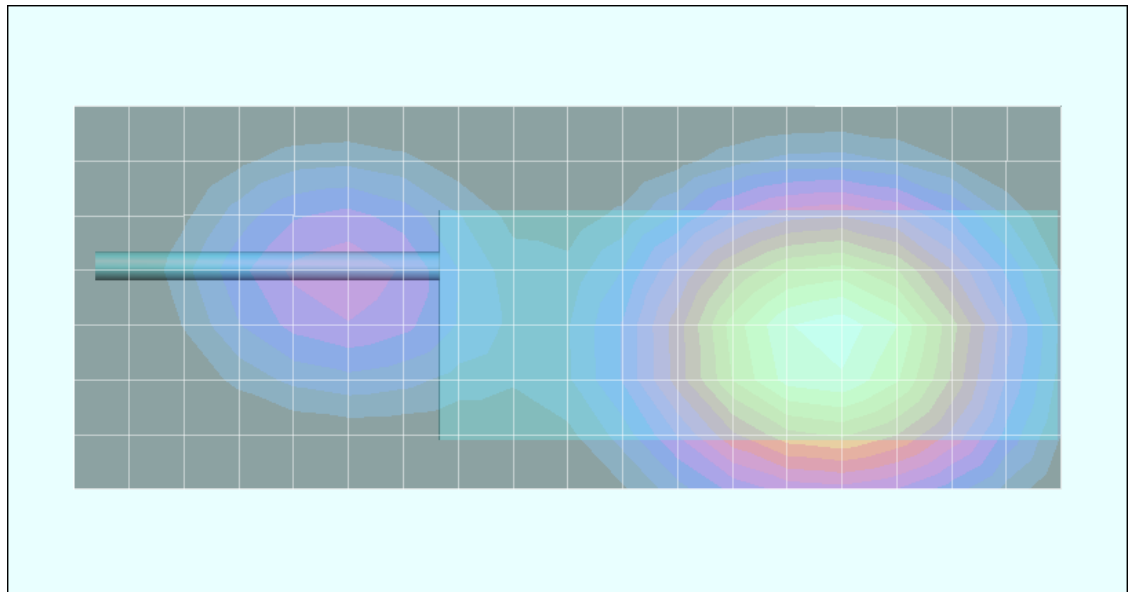
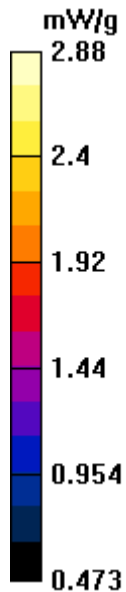
Face-Held - 2.5 cm Separation Distance - Mid Channel/Zoom Scan (5x5x7)/Cube 0:

Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 37.3 V/m; Power Drift = -0.619 dB

Peak SAR (extrapolated) = 3.52 W/kg

SAR(1 g) = 2.74 mW/g; SAR(10 g) = 2.04 mW/g



Face-Held SAR - Alkaline Battery Pack (Duracell Procell) - Stubby Antenna (P/N: 501-0105-012)

Date Tested: 05/25/04

DUT: EF Johnson Model: 242-5172; Type: Portable FM PTT Radio Transceiver; Serial: 51720A000A 00001

Ambient Temp: 22.9 °C; Fluid Temp: 21.2 °C; Barometric Pressure: 102.1 kPa; Humidity: 40%

Communication System: FM Transmit

RF Output Power: 34.73 dBm (Conducted)

Frequency: 799.0125 MHz; Duty Cycle: 1:1

9V AA Alkaline Duracell ProCell Battery Pack (Battery Case P/N: 250-5100-280)

Medium: HSL799 ($\sigma = 0.88$ mho/m; $\epsilon_r = 41.8$; $\rho = 1000$ kg/m³)

- Probe: ET3DV6 - SN1387; ConvF(6.71, 6.71, 6.71); Calibrated: 18/03/2004
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn353; Calibrated: 19/12/2003
- Phantom: Planar; Type: Plexiglas; Serial: 161
- Measurement SW: DASY4, V4.2 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 112

Face-Held - 2.5 cm Separation Distance - Mid Channel/Area Scan (8x21x1):

Measurement grid: dx=15mm, dy=15mm

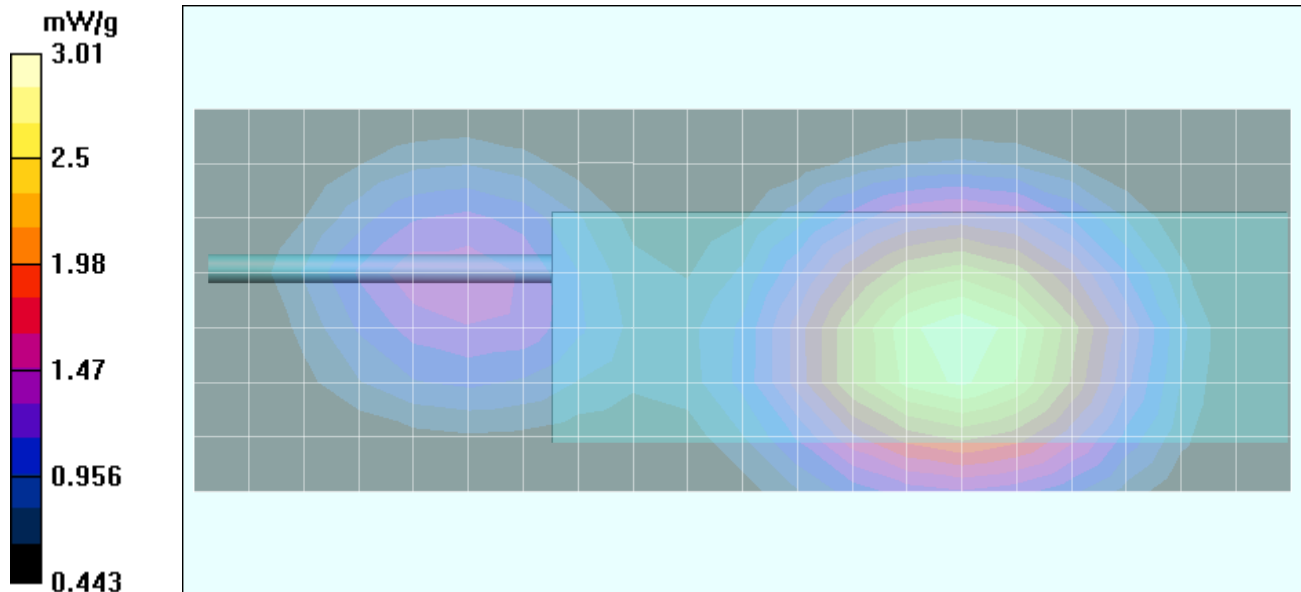
Face-Held - 2.5 cm Separation Distance - Mid Channel/Zoom Scan (5x5x7)/Cube 0:

Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 39.6 V/m; Power Drift = -1.34 dB

Peak SAR (extrapolated) = 3.65 W/kg

SAR(1 g) = 2.81 mW/g; SAR(10 g) = 2.09 mW/g



Face-Held SAR - NiMH Battery - Stubby Antenna (P/N: 501-0105-012)

Date Tested: 05/25/04

DUT: EF Johnson Model: 242-5172; Type: Portable FM PTT Radio Transceiver; Serial: 51720A000A 00001

Ambient Temp: 22.9 °C; Fluid Temp: 21.2 °C; Barometric Pressure: 102.1 kPa; Humidity: 40%

Communication System: FM Transmit

RF Output Power: 35.14 dBm (Conducted)

Frequency: 814.5125 MHz; Duty Cycle: 1:1

7.5V 3600mAh NiMH Battery Pack (P/N: 587-5100-360)

Medium: HSL815 ($\sigma = 0.90$ mho/m; $\epsilon_r = 41.7$; $\rho = 1000$ kg/m³)

- Probe: ET3DV6 - SN1387; ConvF(6.71, 6.71, 6.71); Calibrated: 18/03/2004
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn353; Calibrated: 19/12/2003
- Phantom: Planar; Type: Plexiglas; Serial: 161
- Measurement SW: DASY4, V4.2 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 112

Face-Held - 2.5 cm Separation Distance - Mid Channel/Area Scan (8x19x1):

Measurement grid: dx=15mm, dy=15mm

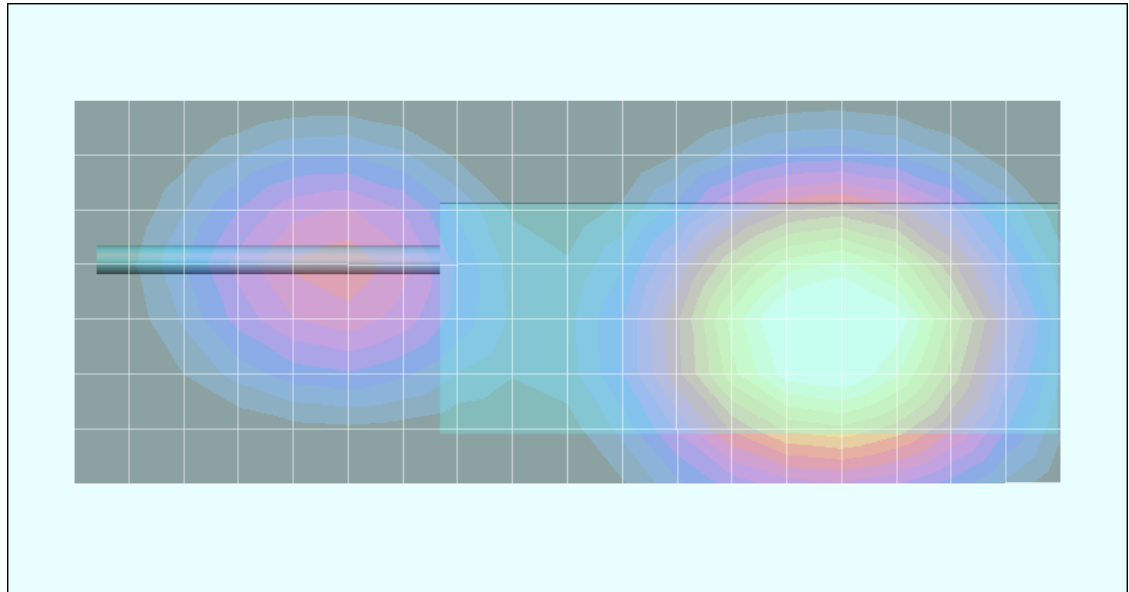
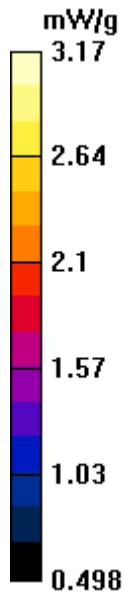
Face-Held - 2.5 cm Separation Distance - Mid Channel/Zoom Scan (5x5x7)/Cube 0:

Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 40.4 V/m; Power Drift = -0.584 dB

Peak SAR (extrapolated) = 3.9 W/kg

SAR(1 g) = 3.02 mW/g; SAR(10 g) = 2.24 mW/g



Face-Held SAR - Alkaline Battery Pack (Duracell Procell) - Stubby Antenna (P/N: 501-0105-012)

Date Tested: 05/25/04

DUT: EF Johnson Model: 242-5172; Type: Portable FM PTT Radio Transceiver; Serial: 51720A000A 00001

Ambient Temp: 22.9 °C; Fluid Temp: 21.2 °C; Barometric Pressure: 102.1 kPa; Humidity: 40%

Communication System: FM Transmit

RF Output Power: 35.09 dBm (Conducted)

RF Output Power: 35.11 dBm (Conducted) - 2nd Maximum

Frequency: 814.5125 MHz; Duty Cycle: 1:1

9V AA Alkaline Duracell ProCell Battery Pack (Battery Case P/N: 250-5100-280)

Medium: HSL815 ($\sigma = 0.90$ mho/m; $\epsilon_r = 41.7$; $\rho = 1000$ kg/m³)

- Probe: ET3DV6 - SN1387; ConvF(6.71, 6.71, 6.71); Calibrated: 18/03/2004
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn353; Calibrated: 19/12/2003
- Phantom: Planar; Type: Plexiglas; Serial: 161
- Measurement SW: DASY4, V4.2 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 112

Face-Held - 2.5 cm Separation Distance - Mid Channel/Area Scan (8x21x1):

Measurement grid: dx=15mm, dy=15mm

Face-Held - 2.5 cm Separation Distance - Mid Channel/Zoom Scan (5x5x7)/Cube 0:

Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 46.9 V/m; Power Drift = -1.46 dB

Peak SAR (extrapolated) = 4.22 W/kg

SAR(1 g) = 3.25 mW/g; SAR(10 g) = 2.39 mW/g

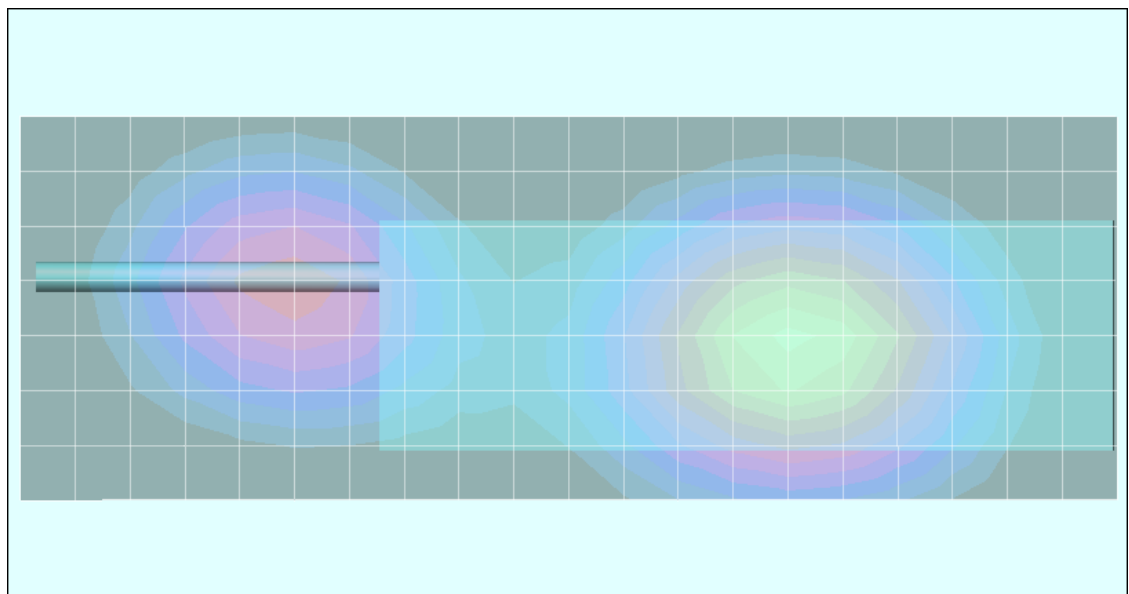
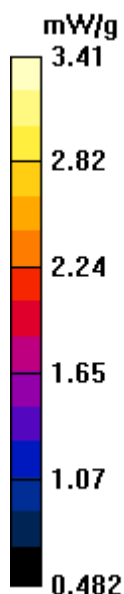
Face-Held - 2.5 cm Separation Distance - Mid Channel/Zoom Scan (5x5x7)/Cube 1:

Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

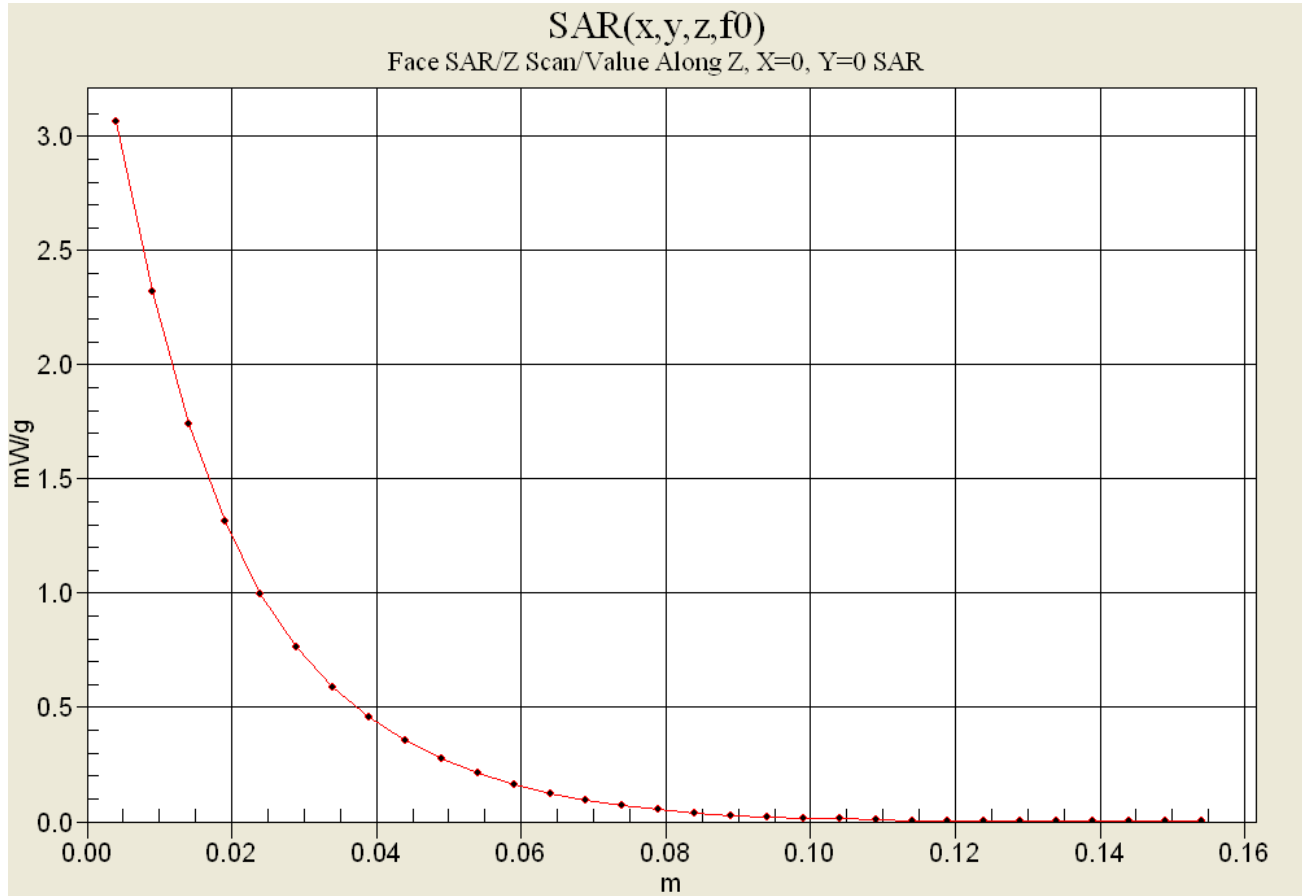
Reference Value = 46.9 V/m; Power Drift = -1.53 dB

Peak SAR (extrapolated) = 2.57 W/kg

SAR(1 g) = 1.97 mW/g; SAR(10 g) = 1.44 mW/g



Z-Axis Scan



Face-Held SAR - NiMH Battery - Stubby Antenna (P/N: 501-0105-012)

Date Tested: 05/25/04

DUT: EF Johnson Model: 242-5172; Type: Portable FM PTT Radio Transceiver; Serial: 51720A000A 00001

Ambient Temp: 22.9 °C; Fluid Temp: 21.2 °C; Barometric Pressure: 102.1 kPa; Humidity: 40%

Communication System: FM Transmit Talk-Around

RF Output Power: 35.12 dBm (Conducted)

RF Output Power: 35.15 dBm (Conducted) - 2nd Maximum

Frequency: 859.5125 MHz; Duty Cycle: 1:1

7.5V 3600mAh NiMH Battery Pack (P/N: 587-5100-360)

Medium: HSL860 ($\sigma = 0.94$ mho/m; $\epsilon_r = 41.0$; $\rho = 1000$ kg/m³)

- Probe: ET3DV6 - SN1387; ConvF(6.71, 6.71, 6.71); Calibrated: 18/03/2004
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn353; Calibrated: 19/12/2003
- Phantom: Planar; Type: Plexiglas; Serial: 161
- Measurement SW: DASY4, V4.2 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 112

Face-Held - 2.5 cm Separation Distance - Mid Channel/Area Scan (8x19x1):

Measurement grid: dx=15mm, dy=15mm

Face-Held - 2.5 cm Separation Distance - Mid Channel/Zoom Scan (5x5x7)/Cube 0:

Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 44.1 V/m; Power Drift = -0.757 dB

Peak SAR (extrapolated) = 3.86 W/kg

SAR(1 g) = 2.97 mW/g; SAR(10 g) = 2.18 mW/g

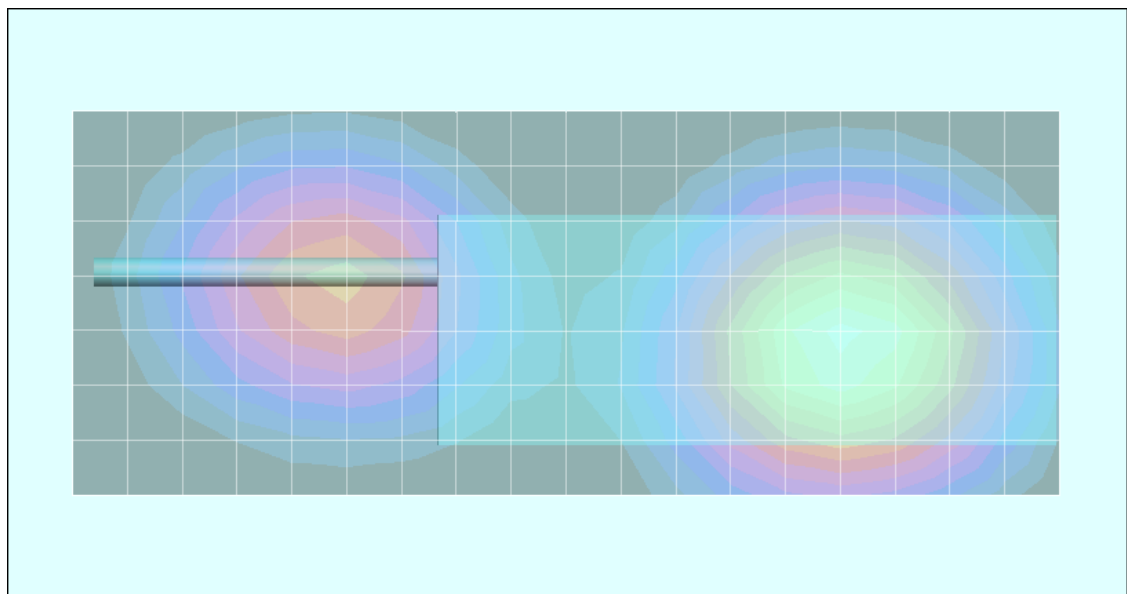
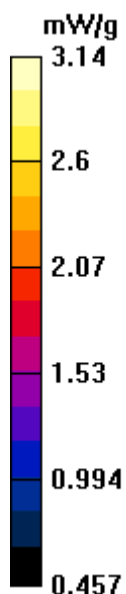
Face-Held - 2.5 cm Separation Distance - Mid Channel/Zoom Scan (5x5x7)/Cube 1:

Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 44.1 V/m; Power Drift = -0.638 dB

Peak SAR (extrapolated) = 2.81 W/kg

SAR(1 g) = 2.13 mW/g; SAR(10 g) = 1.54 mW/g



Face-Held SAR - Alkaline Battery Pack (Duracell Procell) - Stubby Antenna (P/N: 501-0105-012)

Date Tested: 05/25/04

DUT: EF Johnson Model: 242-5172; Type: Portable FM PTT Radio Transceiver; Serial: 51720A000A 00001

Ambient Temp: 22.9 °C; Fluid Temp: 21.2 °C; Barometric Pressure: 102.1 kPa; Humidity: 40%

Communication System: FM Transmit Talk-Around
 RF Output Power: 35.08 dBm (Conducted)
 RF Output Power: 35.10 dBm (Conducted) - 2nd Maximum
 Frequency: 859.5125 MHz; Duty Cycle: 1:1
 9V AA Alkaline Duracell ProCell Battery Pack (Battery Case P/N: 250-5100-280)
 Medium: HSL860 ($\sigma = 0.94$ mho/m; $\epsilon_r = 41.0$; $\rho = 1000$ kg/m³)

- Probe: ET3DV6 - SN1387; ConvF(6.71, 6.71, 6.71); Calibrated: 18/03/2004
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn353; Calibrated: 19/12/2003
- Phantom: Planar; Type: Plexiglas; Serial: 161
- Measurement SW: DASY4, V4.2 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 112

Face-Held - 2.5 cm Separation Distance - Mid Channel/Area Scan (8x21x1):

Measurement grid: dx=15mm, dy=15mm

Face-Held - 2.5 cm Separation Distance - Mid Channel/Zoom Scan (5x5x7)/Cube 0:

Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 49.1 V/m; Power Drift = -1.36 dB

Peak SAR (extrapolated) = 3.51 W/kg

SAR(1 g) = 2.71 mW/g; SAR(10 g) = 2 mW/g

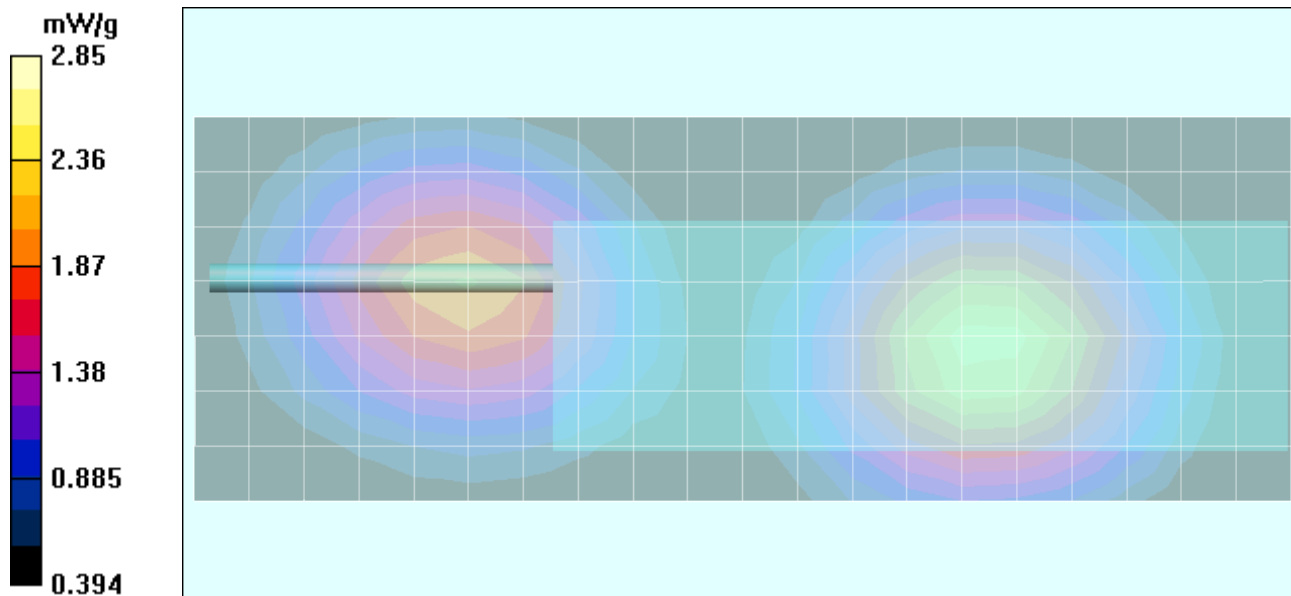
Face-Held - 2.5 cm Separation Distance - Mid Channel/Zoom Scan (5x5x7)/Cube 1:

Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 49.1 V/m; Power Drift = -1.15 dB

Peak SAR (extrapolated) = 3.05 W/kg

SAR(1 g) = 2.31 mW/g; SAR(10 g) = 1.68 mW/g



Face-Held SAR - NiMH Battery - Whip Antenna (P/N: 501-0105-013)

Date Tested: 05/26/04

DUT: EF Johnson Model: 242-5172; Type: Portable FM PTT Speaker-Microphone with Antenna; P/N: 589-0015-058

Ambient Temp: 23.3 °C; Fluid Temp: 21.1 °C; Barometric Pressure: 101.1 kPa; Humidity: 38%

Communication System: FM Transmit Talk-Around

RF Output Power: 34.78 dBm (Conducted)

Frequency: 769.0125 MHz; Duty Cycle: 1:1

7.5V 3600mAh NiMH Battery Pack (P/N: 587-5100-360)

Medium: HSL769 ($\sigma = 0.85$ mho/m; $\epsilon_r = 41.9$; $\rho = 1000$ kg/m³)

- Probe: ET3DV6 - SN1387; ConvF(6.71, 6.71, 6.71); Calibrated: 18/03/2004
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn353; Calibrated: 19/12/2003
- Phantom: Planar; Type: Plexiglas; Serial: 161
- Measurement SW: DASY4, V4.2 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 112

Face-Held - 2.5 cm Separation Distance - Mid Channel/Area Scan (8x19x1):

Measurement grid: dx=15mm, dy=15mm

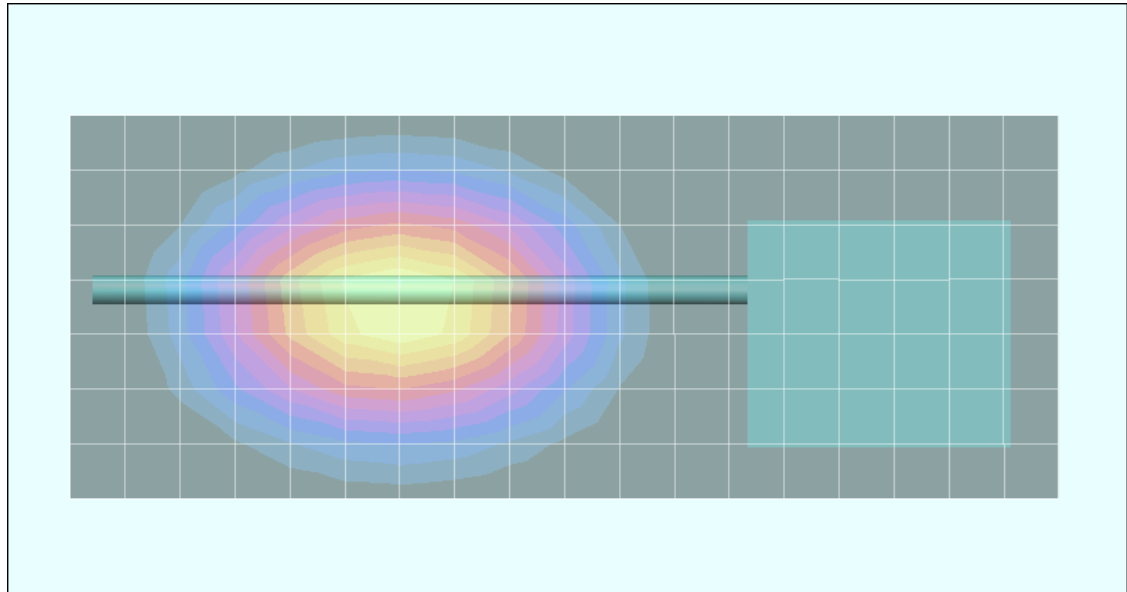
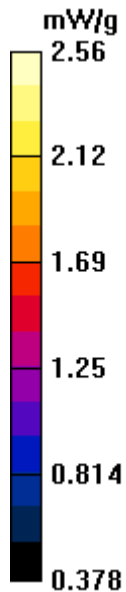
Face-Held - 2.5 cm Separation Distance - Mid Channel/Zoom Scan (5x5x7)/Cube 0:

Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 15.1 V/m; Power Drift = -0.768 dB

Peak SAR (extrapolated) = 3.15 W/kg

SAR(1 g) = 2.41 mW/g; SAR(10 g) = 1.77 mW/g



Face-Held SAR - NiMH Battery - Stubby Antenna (P/N: 501-0105-012)

Date Tested: 05/26/04

DUT: EF Johnson Model: 242-5172; Type: Portable FM PTT Speaker-Microphone with Antenna; P/N: 589-0015-058

Ambient Temp: 23.3 °C; Fluid Temp: 21.1 °C; Barometric Pressure: 101.1 kPa; Humidity: 38%

Communication System: FM Transmit Talk-Around

RF Output Power: 34.73 dBm (Conducted)

Frequency: 769.0125 MHz; Duty Cycle: 1:1

7.5V 3600mAh NiMH Battery Pack (P/N: 587-5100-360)

Medium: HSL769 ($\sigma = 0.85$ mho/m; $\epsilon_r = 41.9$; $\rho = 1000$ kg/m³)

- Probe: ET3DV6 - SN1387; ConvF(6.71, 6.71, 6.71); Calibrated: 18/03/2004
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn353; Calibrated: 19/12/2003
- Phantom: Planar; Type: Plexiglas; Serial: 161
- Measurement SW: DASY4, V4.2 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 112

Face-Held - 2.5 cm Separation Distance - Mid Channel/Area Scan (8x13x1):

Measurement grid: dx=15mm, dy=15mm

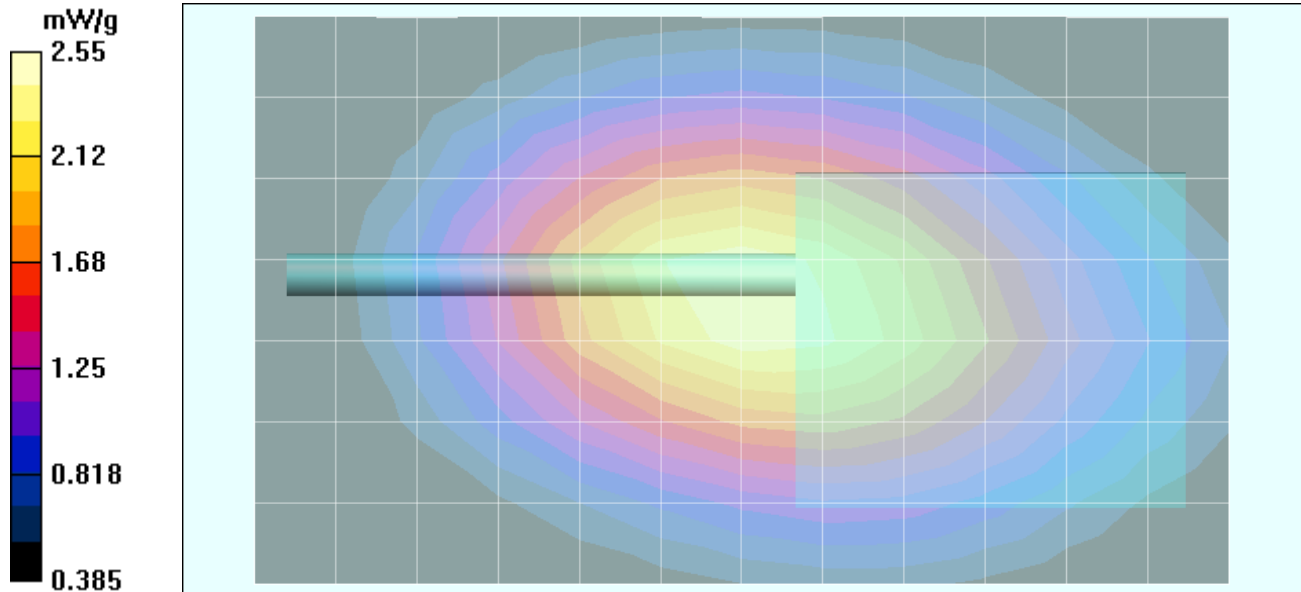
Face-Held - 2.5 cm Separation Distance - Mid Channel/Zoom Scan (5x5x7)/Cube 0:

Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 56.7 V/m; Power Drift = -0.401 dB

Peak SAR (extrapolated) = 3.17 W/kg

SAR(1 g) = 2.41 mW/g; SAR(10 g) = 1.76 mW/g



Face-Held SAR - NiMH Battery - Whip Antenna (P/N: 501-0105-013)

Date Tested: 05/26/04

DUT: EF Johnson Model: 242-5172; Type: Portable FM PTT Speaker-Microphone with Antenna; P/N: 589-0015-058

Ambient Temp: 23.3 °C; Fluid Temp: 21.1 °C; Barometric Pressure: 101.1 kPa; Humidity: 38%

Communication System: FM Transmit

RF Output Power: 34.79 dBm (Conducted)

Frequency: 799.0125 MHz; Duty Cycle: 1:1

7.5V 3600mAh NiMH Battery Pack (P/N: 587-5100-360)

Medium: HSL799 ($\sigma = 0.88$ mho/m; $\epsilon_r = 41.6$; $\rho = 1000$ kg/m³)

- Probe: ET3DV6 - SN1387; ConvF(6.71, 6.71, 6.71); Calibrated: 18/03/2004
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn353; Calibrated: 19/12/2003
- Phantom: Planar; Type: Plexiglas; Serial: 161
- Measurement SW: DASY4, V4.2 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 112

Face-Held - 2.5 cm Separation Distance - Mid Channel/Area Scan (8x19x1):

Measurement grid: dx=15mm, dy=15mm

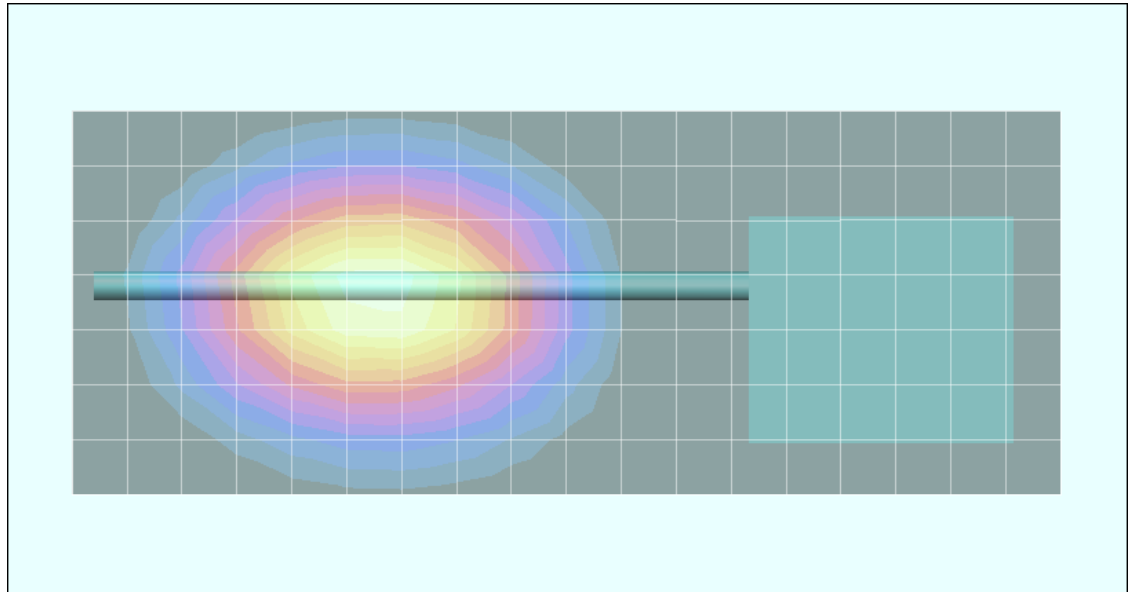
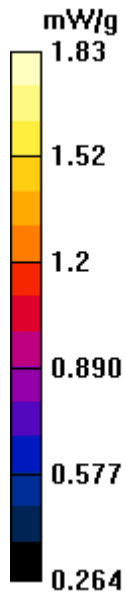
Face-Held - 2.5 cm Separation Distance - Mid Channel/Zoom Scan (5x5x7)/Cube 0:

Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 8.44 V/m; Power Drift = -0.354 dB

Peak SAR (extrapolated) = 2.26 W/kg

SAR(1 g) = 1.73 mW/g; SAR(10 g) = 1.26 mW/g



Face-Held SAR - NiMH Battery - Stubby Antenna (P/N: 501-0105-012)

Date Tested: 05/26/04

DUT: EF Johnson Model: 242-5172; Type: Portable FM PTT Speaker-Microphone with Antenna; P/N: 589-0015-058

Ambient Temp: 23.3 °C; Fluid Temp: 21.1 °C; Barometric Pressure: 101.1 kPa; Humidity: 38%

Communication System: FM Transmit
RF Output Power: 34.83 dBm (Conducted)
Frequency: 799.0125 MHz; Duty Cycle: 1:1
7.5V 3600mAh NiMH Battery Pack (P/N: 587-5100-360)
Medium: HSL799 ($\sigma = 0.88$ mho/m; $\epsilon_r = 41.6$; $\rho = 1000$ kg/m³)

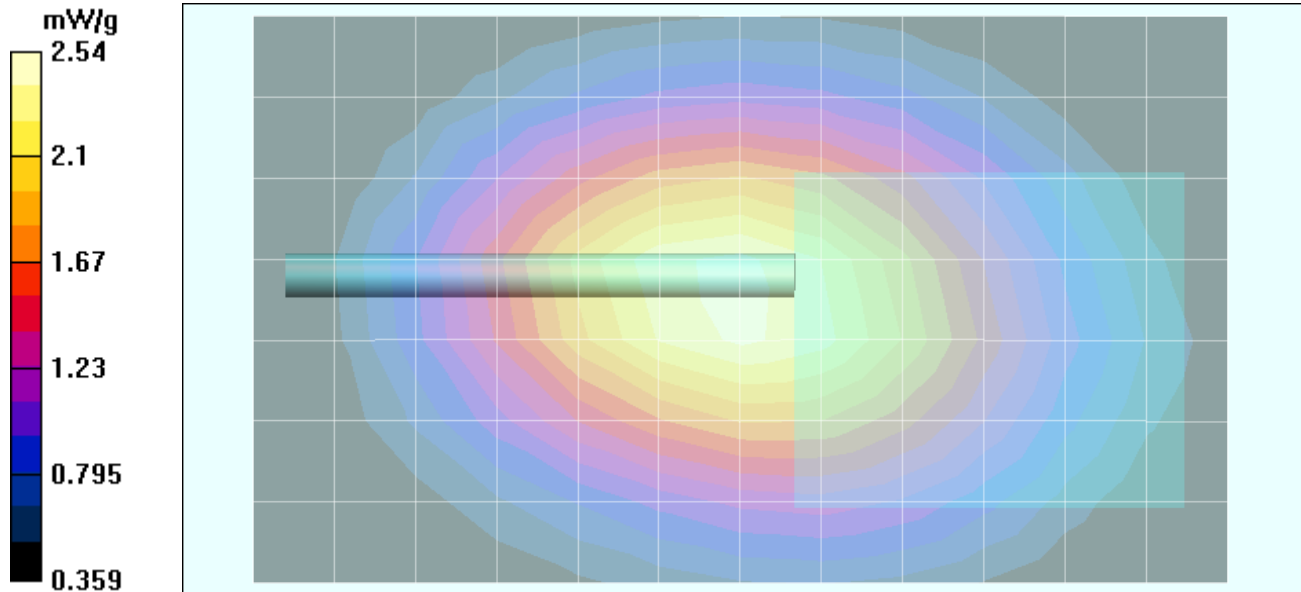
- Probe: ET3DV6 - SN1387; ConvF(6.71, 6.71, 6.71); Calibrated: 18/03/2004
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn353; Calibrated: 19/12/2003
- Phantom: Planar; Type: Plexiglas; Serial: 161
- Measurement SW: DASY4, V4.2 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 112

Face-Held - 2.5 cm Separation Distance - Mid Channel/Area Scan (8x13x1):

Measurement grid: dx=15mm, dy=15mm

Face-Held - 2.5 cm Separation Distance - Mid Channel/Zoom Scan (5x5x7)/Cube 0:

Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 54.8 V/m; Power Drift = -0.209 dB
Peak SAR (extrapolated) = 3.18 W/kg
SAR(1 g) = 2.40 mW/g; SAR(10 g) = 1.73 mW/g



Face-Held SAR - NiMH Battery - Whip Antenna (P/N: 501-0105-013)

Date Tested: 05/26/04

DUT: EF Johnson Model: 242-5172; Type: Portable FM PTT Speaker-Microphone with Antenna; P/N: 589-0015-058

Ambient Temp: 22.4 °C; Fluid Temp: 20.9 °C; Barometric Pressure: 101.3 kPa; Humidity: 41%

Communication System: FM Transmit
RF Output Power: 35.19 dBm (Conducted)
Frequency: 814.5125 MHz; Duty Cycle: 1:1
7.5V 3600mAh NiMH Battery Pack (P/N: 587-5100-360)
Medium: HSL815 ($\sigma = 0.88$ mho/m; $\epsilon_r = 41.4$; $\rho = 1000$ kg/m³)

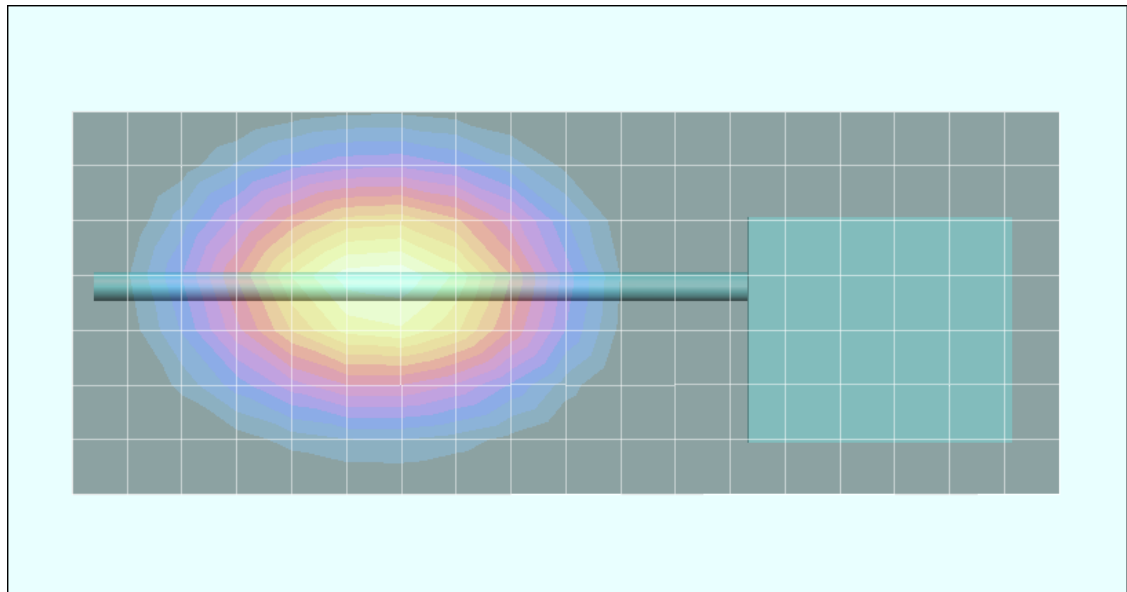
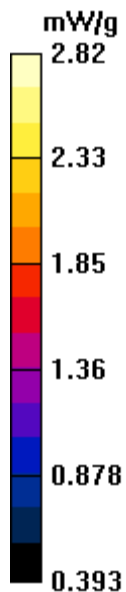
- Probe: ET3DV6 - SN1387; ConvF(6.71, 6.71, 6.71); Calibrated: 18/03/2004
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn353; Calibrated: 19/12/2003
- Phantom: Planar; Type: Plexiglas; Serial: 161
- Measurement SW: DASY4, V4.2 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 112

Face-Held - 2.5 cm Separation Distance - Mid Channel/Area Scan (8x19x1):

Measurement grid: dx=15mm, dy=15mm

Face-Held - 2.5 cm Separation Distance - Mid Channel/Zoom Scan (5x5x7)/Cube 0:

Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 10.1 V/m; Power Drift = -0.178 dB
Peak SAR (extrapolated) = 3.5 W/kg
SAR(1 g) = 2.67 mW/g; SAR(10 g) = 1.94 mW/g



Face-Held SAR - NiMH Battery - Stubby Antenna (P/N: 501-0105-012)

Date Tested: 05/26/04

DUT: EF Johnson Model: 242-5172; Type: Portable FM PTT Speaker-Microphone with Antenna; P/N: 589-0015-058

Ambient Temp: 22.4 °C; Fluid Temp: 20.9 °C; Barometric Pressure: 101.3 kPa; Humidity: 41%

Communication System: FM Transmit
RF Output Power: 35.15 dBm (Conducted)
Frequency: 814.5125 MHz; Duty Cycle: 1:1
7.5V 3600mAh NiMH Battery Pack (P/N: 587-5100-360)
Medium: HSL815 ($\sigma = 0.88$ mho/m; $\epsilon_r = 41.4$; $\rho = 1000$ kg/m³)

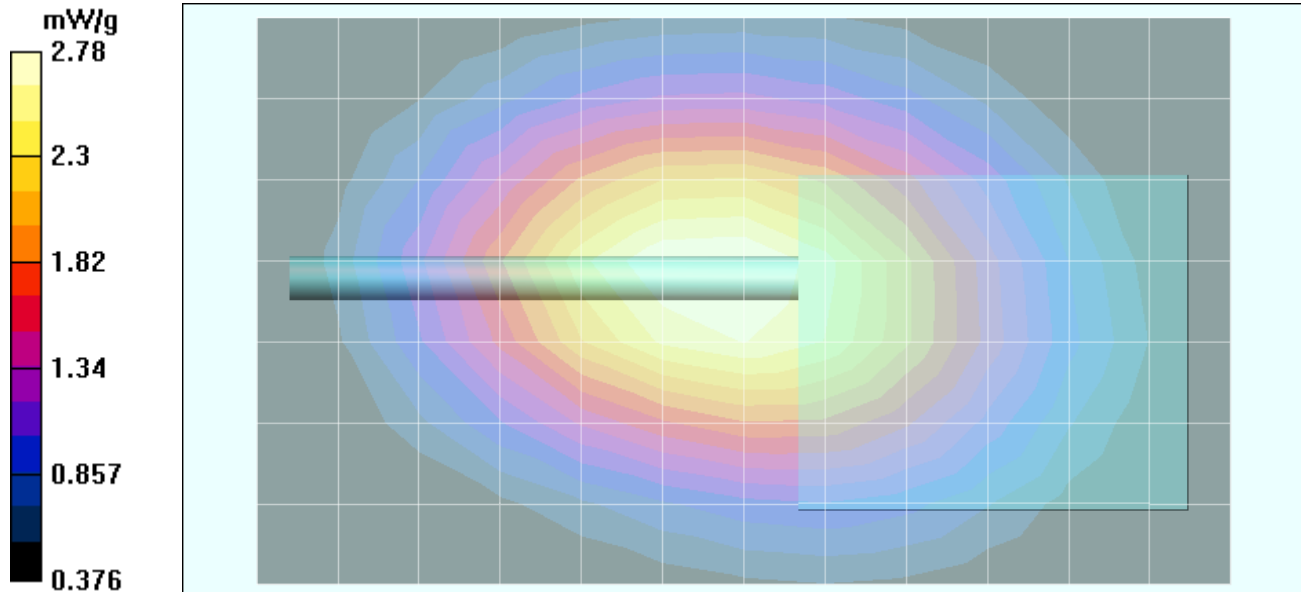
- Probe: ET3DV6 - SN1387; ConvF(6.71, 6.71, 6.71); Calibrated: 18/03/2004
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn353; Calibrated: 19/12/2003
- Phantom: Planar; Type: Plexiglas; Serial: 161
- Measurement SW: DASY4, V4.2 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 112

Face-Held - 2.5 cm Separation Distance - Mid Channel/Area Scan (8x13x1):

Measurement grid: dx=15mm, dy=15mm

Face-Held - 2.5 cm Separation Distance - Mid Channel/Zoom Scan (5x5x7)/Cube 0:

Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 56.9 V/m; Power Drift = -0.175 dB
Peak SAR (extrapolated) = 3.47 W/kg
SAR(1 g) = 2.62 mW/g; SAR(10 g) = 1.89 mW/g



Face-Held SAR - NiMH Battery - Whip Antenna (P/N: 501-0105-013)

Date Tested: 05/26/04

DUT: EF Johnson Model: 242-5172; Type: Portable FM PTT Speaker-Microphone with Antenna; P/N: 589-0015-058

Ambient Temp: 22.4 °C; Fluid Temp: 20.9 °C; Barometric Pressure: 101.3 kPa; Humidity: 41%

Communication System: FM Transmit Talk-Around

RF Output Power: 35.28 dBm (Conducted)

Frequency: 859.5125 MHz; Duty Cycle: 1:1

7.5V 3600mAh NiMH Battery Pack (P/N: 587-5100-360)

Medium: HSL860 ($\sigma = 0.93$ mho/m; $\epsilon_r = 40.8$; $\rho = 1000$ kg/m³)

- Probe: ET3DV6 - SN1387; ConvF(6.71, 6.71, 6.71); Calibrated: 18/03/2004
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn353; Calibrated: 19/12/2003
- Phantom: Planar; Type: Plexiglas; Serial: 161
- Measurement SW: DASy4, V4.2 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 112

Face-Held - 2.5 cm Separation Distance - Mid Channel/Area Scan (8x19x1):

Measurement grid: dx=15mm, dy=15mm

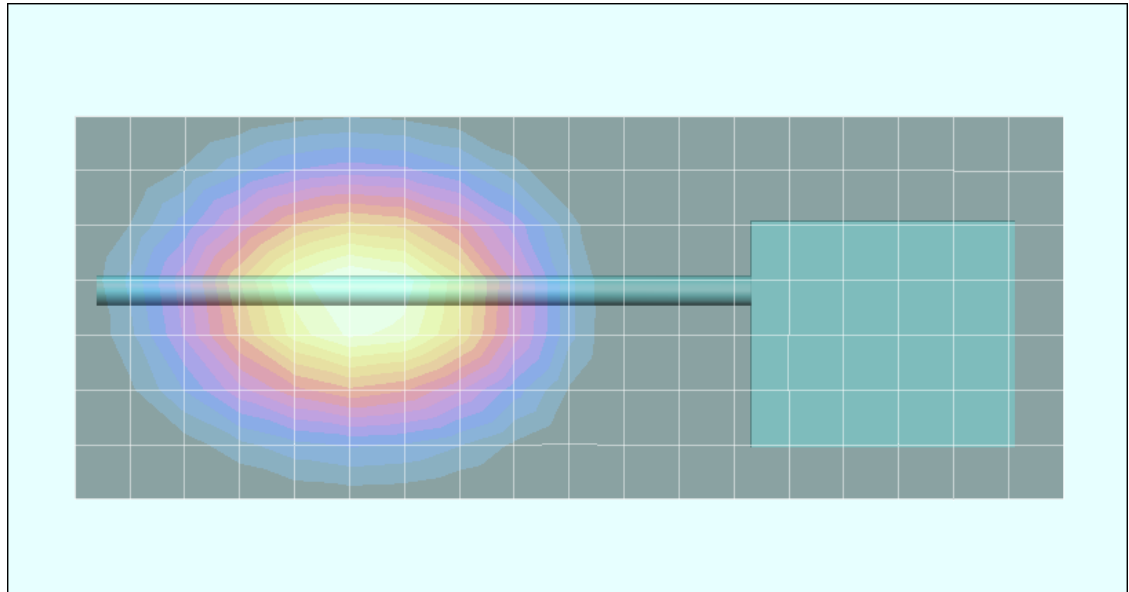
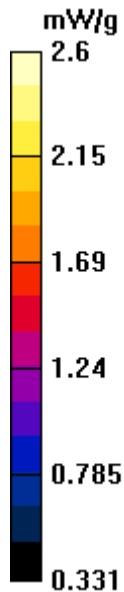
Face-Held - 2.5 cm Separation Distance - Mid Channel/Zoom Scan (5x5x7)/Cube 0:

Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 10.4 V/m; Power Drift = -0.0598 dB

Peak SAR (extrapolated) = 3.25 W/kg

SAR(1 g) = 2.46 mW/g; SAR(10 g) = 1.77 mW/g



Face-Held SAR - NiMH Battery - Stubby Antenna (P/N: 501-0105-012)

Date Tested: 05/26/04

DUT: EF Johnson Model: 242-5172; Type: Portable FM PTT Speaker-Microphone with Antenna; P/N: 589-0015-058

Ambient Temp: 22.4 °C; Fluid Temp: 20.9 °C; Barometric Pressure: 101.3 kPa; Humidity: 41%

Communication System: FM Transmit Talk-Around

RF Output Power: 35.22 dBm (Conducted)

Frequency: 859.5125 MHz; Duty Cycle: 1:1

7.5V 3600mAh NiMH Battery Pack (P/N: 587-5100-360)

Medium: HSL860 ($\sigma = 0.93$ mho/m; $\epsilon_r = 40.8$; $\rho = 1000$ kg/m³)

- Probe: ET3DV6 - SN1387; ConvF(6.71, 6.71, 6.71); Calibrated: 18/03/2004
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn353; Calibrated: 19/12/2003
- Phantom: Planar; Type: Plexiglas; Serial: 161
- Measurement SW: DASY4, V4.2 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 112

Face-Held - 2.5 cm Separation Distance - Mid Channel/Area Scan (8x13x1):

Measurement grid: dx=15mm, dy=15mm

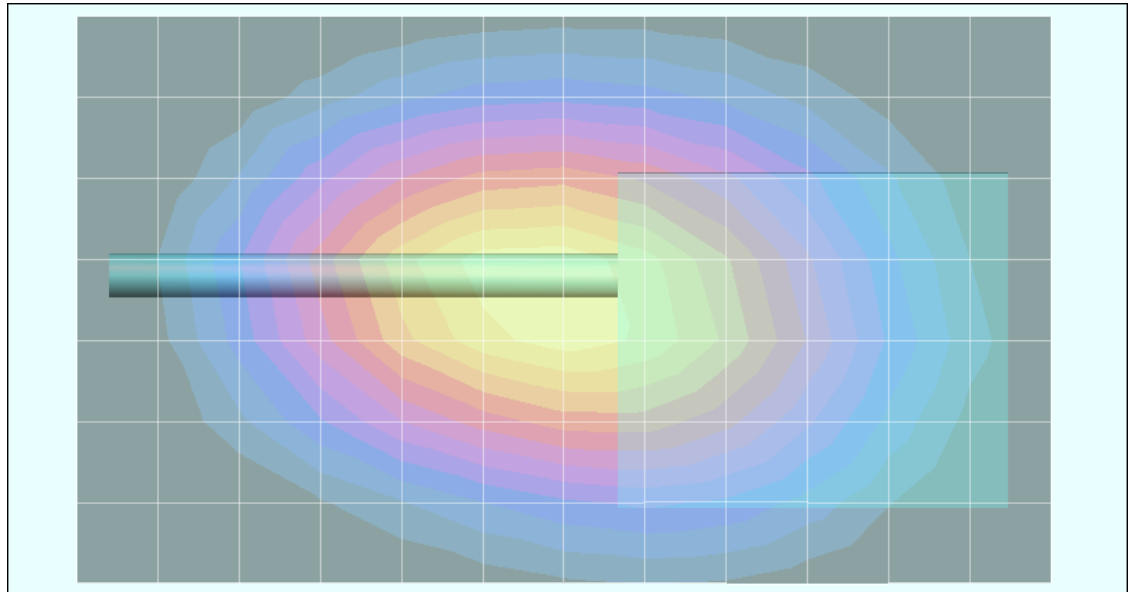
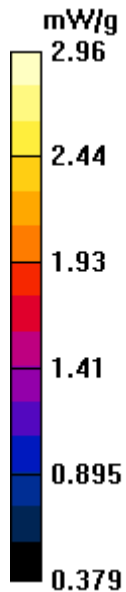
Face-Held - 2.5 cm Separation Distance - Mid Channel/Zoom Scan (5x5x7)/Cube 0:

Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

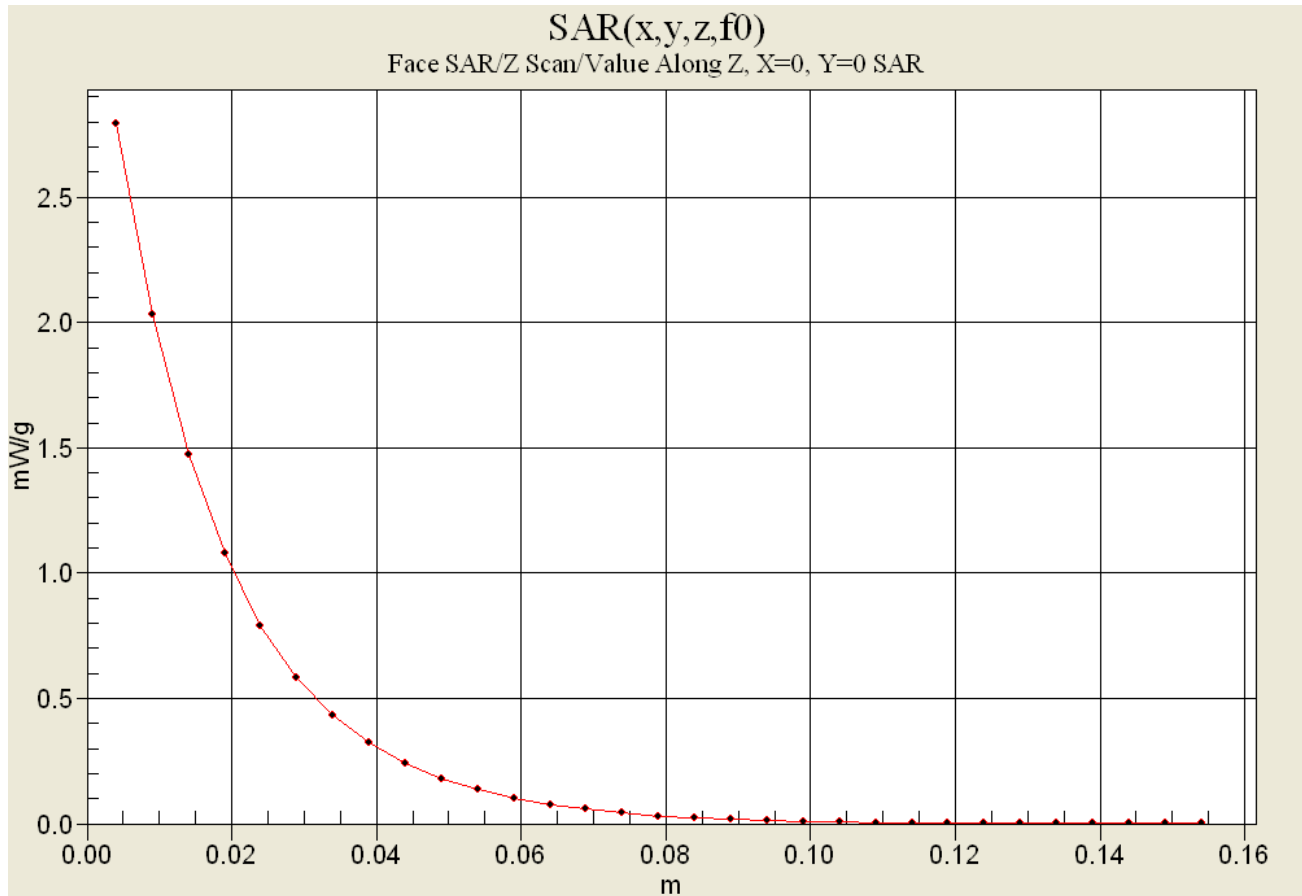
Reference Value = 59.2 V/m; Power Drift = -0.713 dB

Peak SAR (extrapolated) = 3.71 W/kg

SAR(1 g) = 2.79 mW/g; SAR(10 g) = 2 mW/g



Z-Axis Scan



Body-Worn SAR - NiMH Battery - Whip Antenna (P/N: 501-0105-013)

Date Tested: 05/27/04

DUT: EF Johnson Model: 242-5172; Type: Portable FM PTT Speaker-Microphone with Antenna; P/N: 589-0015-058

Body-Worn Accessories: Lapel-Clip

Ambient Temp: 23.6 °C; Fluid Temp: 21.7 °C; Barometric Pressure: 101.5 kPa; Humidity: 36%

Communication System: FM Transmit Talk-Around
 RF Output Power: 34.82 dBm (Conducted)
 Frequency: 769.0125 MHz; Duty Cycle: 1:1
 7.5V 3600mAh NiMH Battery Pack (P/N: 587-5100-360)
 Medium: M769 ($\sigma = 0.93$ mho/m; $\epsilon_r = 54.9$; $\rho = 1000$ kg/m³)

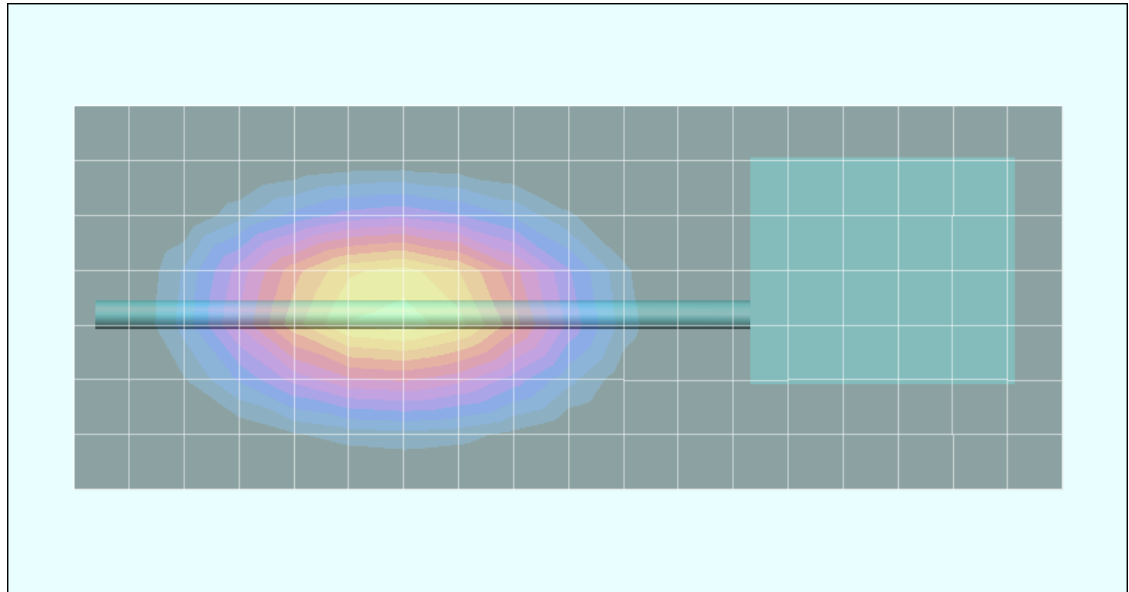
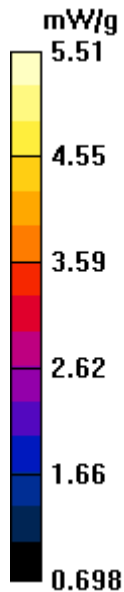
- Probe: ET3DV6 - SN1387; ConvF(6.24, 6.24, 6.24); Calibrated: 18/03/2004
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn353; Calibrated: 19/12/2003
- Phantom: Planar; Type: Plexiglas; Serial: 161
- Measurement SW: DASY4, V4.2 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 112

Body-Worn - 1.2 cm Lapel-Clip Separation Distance - Mid Channel/Area Scan (8x19x1):

Measurement grid: dx=15mm, dy=15mm

Body-Worn - 1.2 cm Lapel-Clip Separation Distance - Mid Channel/Zoom Scan (5x5x7)/Cube 0:

Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
 Reference Value = 19.4 V/m; Power Drift = -0.689 dB
 Peak SAR (extrapolated) = 6.99 W/kg
SAR(1 g) = 5.26 mW/g; SAR(10 g) = 3.76 mW/g



Body-Worn SAR - NiMH Battery - Stubby Antenna (P/N: 501-0105-012)

Date Tested: 05/27/04

DUT: EF Johnson Model: 242-5172; Type: Portable FM PTT Speaker-Microphone with Antenna; P/N: 589-0015-058

Body-Worn Accessories: Lapel-Clip

Ambient Temp: 23.6 °C; Fluid Temp: 21.7 °C; Barometric Pressure: 101.5 kPa; Humidity: 36%

Communication System: FM Transmit Talk-Around
RF Output Power: 34.80 dBm (Conducted)
Frequency: 769.0125 MHz; Duty Cycle: 1:1
7.5V 3600mAh NiMH Battery Pack (P/N: 587-5100-360)
Medium: M769 ($\sigma = 0.93$ mho/m; $\epsilon_r = 54.9$; $\rho = 1000$ kg/m³)

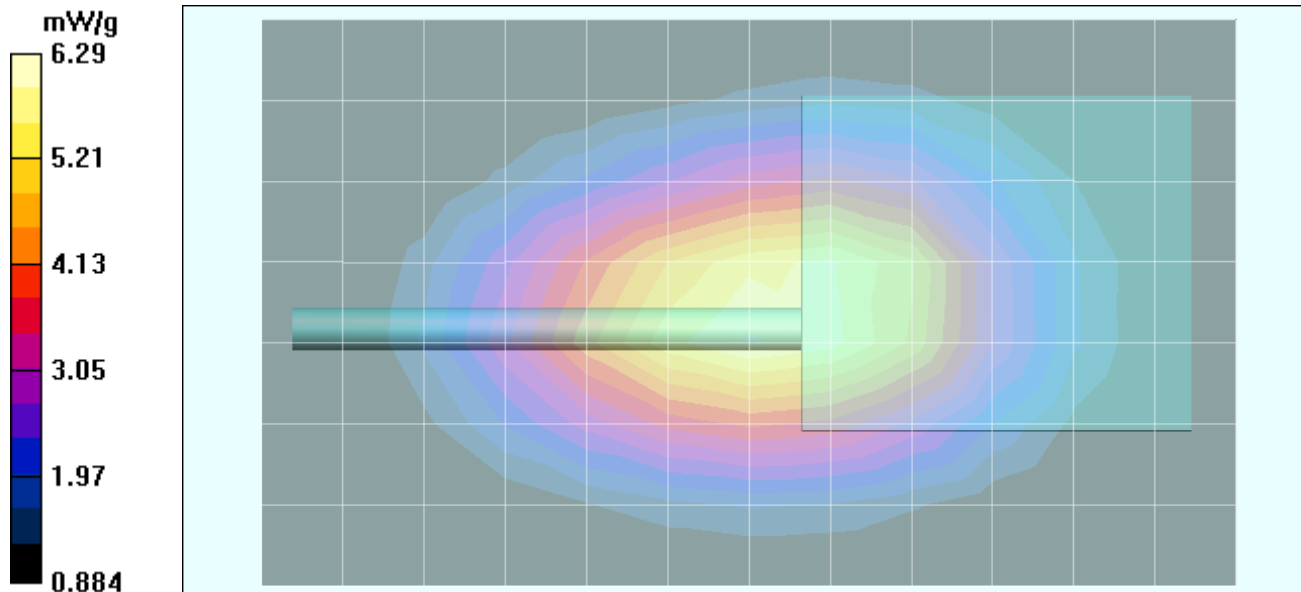
- Probe: ET3DV6 - SN1387; ConvF(6.24, 6.24, 6.24); Calibrated: 18/03/2004
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn353; Calibrated: 19/12/2003
- Phantom: Planar; Type: Plexiglas; Serial: 161
- Measurement SW: DASY4, V4.2 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 112

Body-Worn - 1.2 cm Lapel-Clip Separation Distance - Mid Channel/Area Scan (8x13x1):

Measurement grid: dx=15mm, dy=15mm

Body-Worn - 1.2 cm Lapel-Clip Separation Distance - Mid Channel/Zoom Scan (5x5x7)/Cube 0:

Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 83.7 V/m; Power Drift = -0.245 dB
Peak SAR (extrapolated) = 7.78 W/kg
SAR(1 g) = 5.94 mW/g; SAR(10 g) = 4.29 mW/g



Body-Worn SAR - NiMH Battery - Whip Antenna (P/N: 501-0105-013)

Date Tested: 05/27/04

DUT: EF Johnson Model: 242-5172; Type: Portable FM PTT Speaker-Microphone with Antenna; P/N: 589-0015-058

Body-Worn Accessories: Lapel-Clip

Ambient Temp: 23.6 °C; Fluid Temp: 21.7 °C; Barometric Pressure: 101.5 kPa; Humidity: 36%

Communication System: FM Transmit
RF Output Power: 34.78 dBm (Conducted)
Frequency: 799.0125 MHz; Duty Cycle: 1:1
7.5V 3600mAh NiMH Battery Pack (P/N: 587-5100-360)
Medium: M799 ($\sigma = 0.96$ mho/m; $\epsilon_r = 54.6$; $\rho = 1000$ kg/m³)

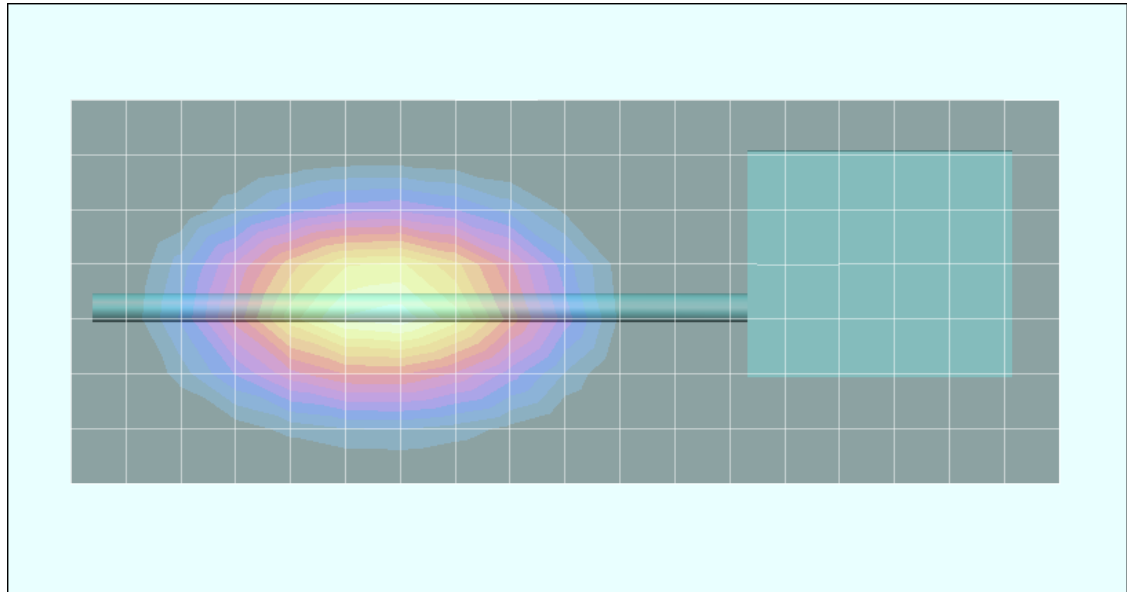
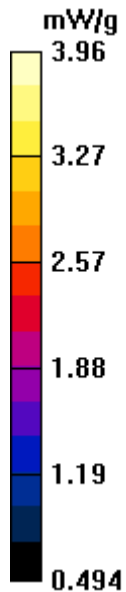
- Probe: ET3DV6 - SN1387; ConvF(6.24, 6.24, 6.24); Calibrated: 18/03/2004
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn353; Calibrated: 19/12/2003
- Phantom: Planar; Type: Plexiglas; Serial: 161
- Measurement SW: DASY4, V4.2 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 112

Body-Worn - 1.2 cm Lapel-Clip Separation Distance - Mid Channel/Area Scan (8x19x1):

Measurement grid: dx=15mm, dy=15mm

Body-Worn - 1.2 cm Lapel-Clip Separation Distance - Mid Channel/Zoom Scan (5x5x7)/Cube 0:

Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 10.2 V/m; Power Drift = -0.256 dB
Peak SAR (extrapolated) = 4.98 W/kg
SAR(1 g) = 3.71 mW/g; SAR(10 g) = 2.62 mW/g



Body-Worn SAR - NiMH Battery - Stubby Antenna (P/N: 501-0105-012)

Date Tested: 05/27/04

DUT: EF Johnson Model: 242-5172; Type: Portable FM PTT Speaker-Microphone with Antenna; P/N: 589-0015-058

Body-Worn Accessories: Lapel-Clip

Ambient Temp: 23.6 °C; Fluid Temp: 21.7 °C; Barometric Pressure: 101.5 kPa; Humidity: 36%

Communication System: FM Transmit
RF Output Power: 34.78 dBm (Conducted)
Frequency: 799.0125 MHz; Duty Cycle: 1:1
7.5V 3600mAh NiMH Battery Pack (P/N: 587-5100-360)
Medium: M799 ($\sigma = 0.96$ mho/m; $\epsilon_r = 54.6$; $\rho = 1000$ kg/m³)

- Probe: ET3DV6 - SN1387; ConvF(6.24, 6.24, 6.24); Calibrated: 18/03/2004
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn353; Calibrated: 19/12/2003
- Phantom: Planar; Type: Plexiglas; Serial: 161
- Measurement SW: DASY4, V4.2 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 112

Body-Worn - 1.2 cm Lapel-Clip Separation Distance - Mid Channel/Area Scan (8x13x1):

Measurement grid: dx=15mm, dy=15mm

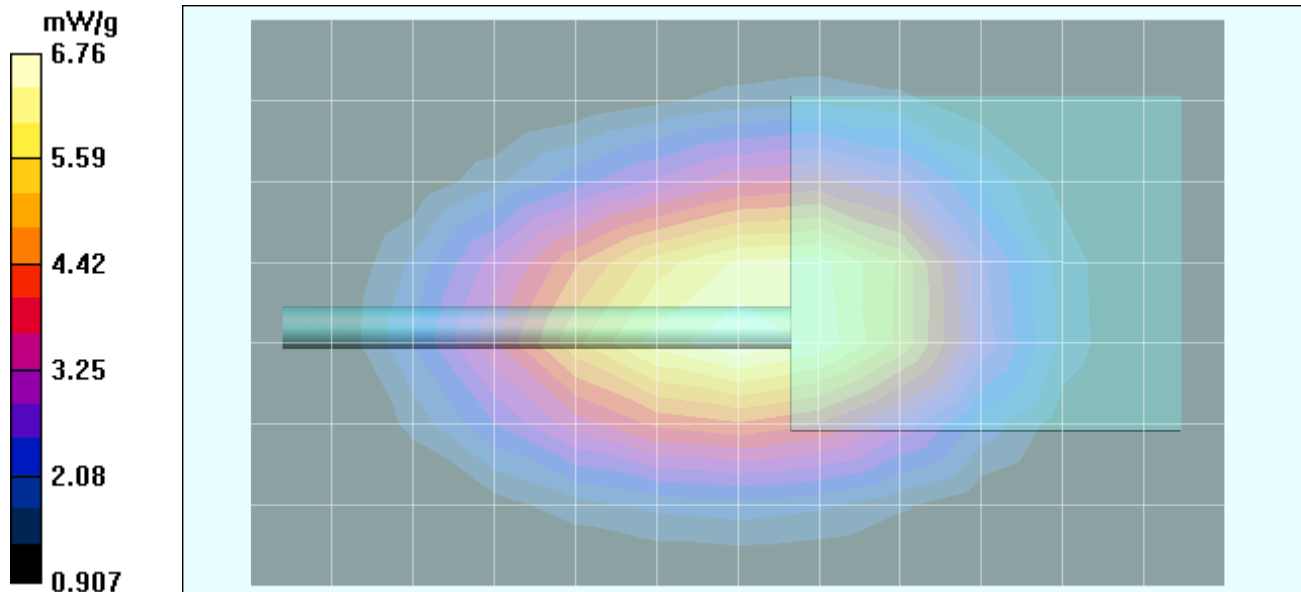
Body-Worn - 1.2 cm Lapel-Clip Separation Distance - Mid Channel/Zoom Scan (5x5x7)/Cube 0:

Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

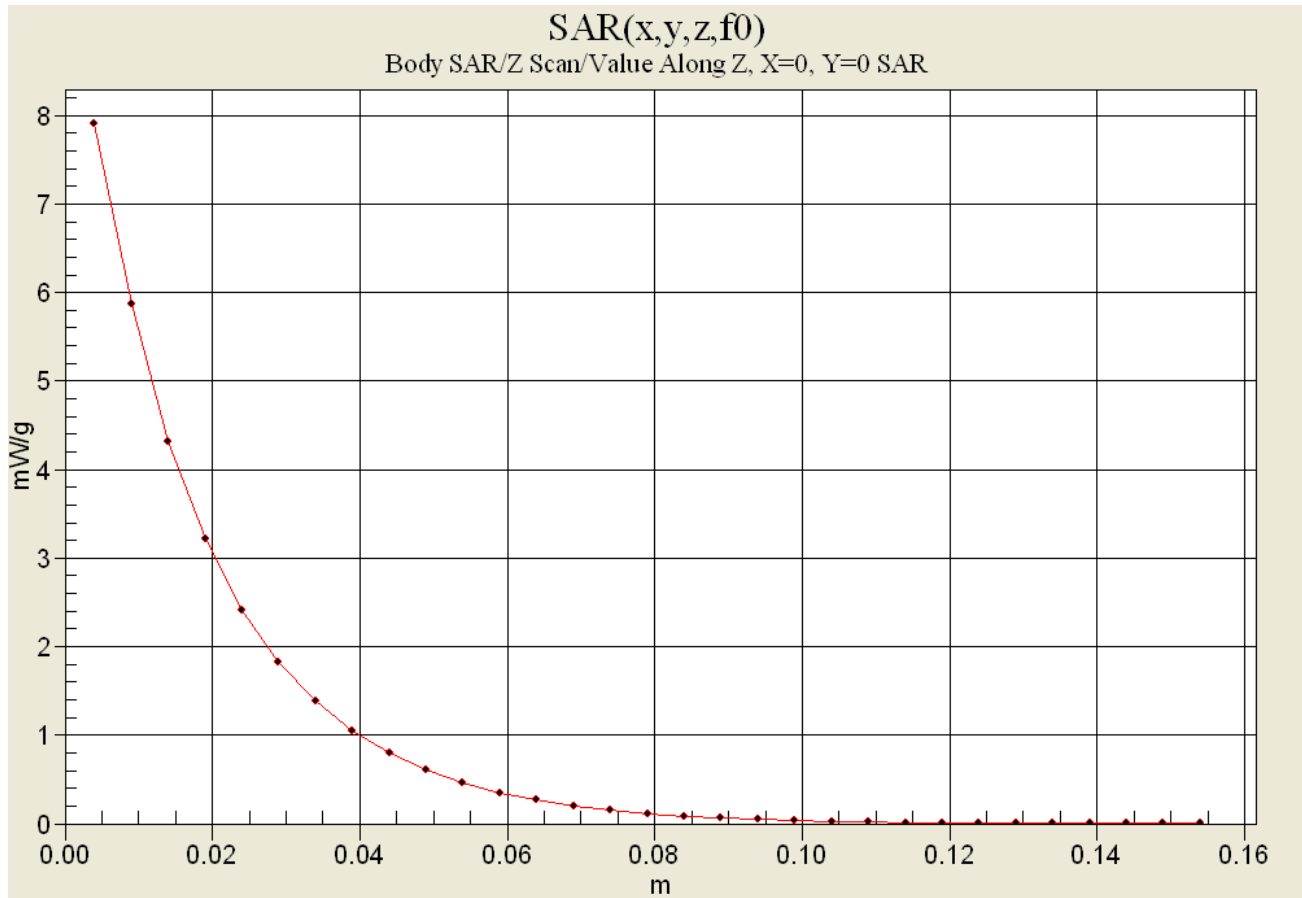
Reference Value = 84 V/m; Power Drift = -0.194 dB

Peak SAR (extrapolated) = 8.38 W/kg

SAR(1 g) = 6.36 mW/g; SAR(10 g) = 4.56 mW/g



Z-Axis Scan



Body-Worn SAR - NiMH Battery - Whip Antenna (P/N: 501-0105-013)

Date Tested: 05/27/04

DUT: EF Johnson Model: 242-5172; Type: Portable FM PTT Speaker-Microphone with Antenna; P/N: 589-0015-058

Body-Worn Accessories: Lapel-Clip

Ambient Temp: 23.6 °C; Fluid Temp: 21.7 °C; Barometric Pressure: 101.5 kPa; Humidity: 36%

Communication System: FM Transmit
RF Output Power: 35.13 dBm (Conducted)
Frequency: 814.5125 MHz; Duty Cycle: 1:1
7.5V 3600mAh NiMH Battery Pack (P/N: 587-5100-360)
Medium: M815 ($\sigma = 0.98$ mho/m; $\epsilon_r = 54.4$; $\rho = 1000$ kg/m³)

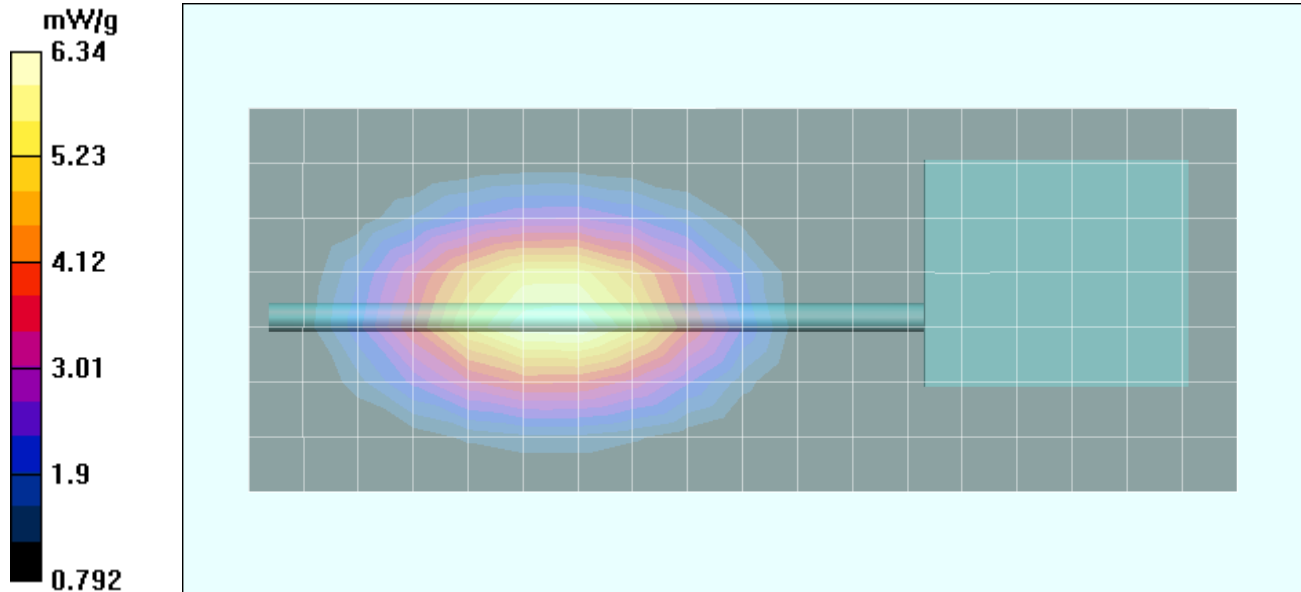
- Probe: ET3DV6 - SN1387; ConvF(6.24, 6.24, 6.24); Calibrated: 18/03/2004
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn353; Calibrated: 19/12/2003
- Phantom: Planar; Type: Plexiglas; Serial: 161
- Measurement SW: DASY4, V4.2 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 112

Body-Worn - 1.2 cm Lapel-Clip Separation Distance - Mid Channel/Area Scan (8x19x1):

Measurement grid: dx=15mm, dy=15mm

Body-Worn - 1.2 cm Lapel-Clip Separation Distance - Mid Channel/Zoom Scan (5x5x7)/Cube 0:

Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 13.4 V/m; Power Drift = -0.0807 dB
Peak SAR (extrapolated) = 7.99 W/kg
SAR(1 g) = 5.96 mW/g; SAR(10 g) = 4.19 mW/g



Body-Worn SAR - NiMH Battery - Stubby Antenna (P/N: 501-0105-012)

Date Tested: 05/27/04

DUT: EF Johnson Model: 242-5172; Type: Portable FM PTT Speaker-Microphone with Antenna; P/N: 589-0015-058

Body-Worn Accessories: Lapel-Clip

Ambient Temp: 23.6 °C; Fluid Temp: 21.7 °C; Barometric Pressure: 101.5 kPa; Humidity: 36%

Communication System: FM Transmit
RF Output Power: 35.14 dBm (Conducted)
Frequency: 814.5125 MHz; Duty Cycle: 1:1
7.5V 3600mAh NiMH Battery Pack (P/N: 587-5100-360)
Medium: M815 ($\sigma = 0.98$ mho/m; $\epsilon_r = 54.4$; $\rho = 1000$ kg/m³)

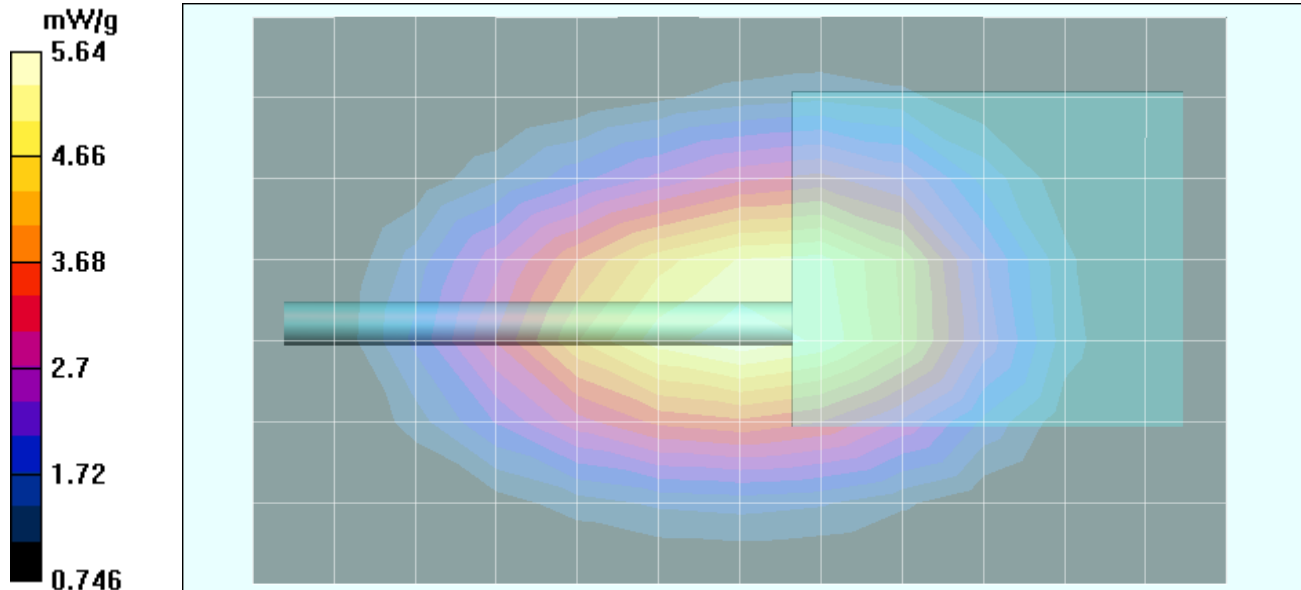
- Probe: ET3DV6 - SN1387; ConvF(6.24, 6.24, 6.24); Calibrated: 18/03/2004
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn353; Calibrated: 19/12/2003
- Phantom: Planar; Type: Plexiglas; Serial: 161
- Measurement SW: DASY4, V4.2 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 112

Body-Worn - 1.2 cm Lapel-Clip Separation Distance - Mid Channel/Area Scan (8x13x1):

Measurement grid: dx=15mm, dy=15mm

Body-Worn - 1.2 cm Lapel-Clip Separation Distance - Mid Channel/Zoom Scan (5x5x7)/Cube 0:

Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 76.2 V/m; Power Drift = -0.173 dB
Peak SAR (extrapolated) = 6.94 W/kg
SAR(1 g) = 5.32 mW/g; SAR(10 g) = 3.83 mW/g



Body-Worn SAR - NiMH Battery - Whip Antenna (P/N: 501-0105-013)

Date Tested: 05/27/04

DUT: EF Johnson Model: 242-5172; Type: Portable FM PTT Speaker-Microphone with Antenna; P/N: 589-0015-058

Body-Worn Accessories: Lapel-Clip

Ambient Temp: 23.6 °C; Fluid Temp: 21.7 °C; Barometric Pressure: 101.5 kPa; Humidity: 36%

Communication System: FM Transmit Talk-Around
RF Output Power: 35.19 dBm (Conducted)
Frequency: 859.5125 MHz; Duty Cycle: 1:1
7.5V 3600mAh NiMH Battery Pack (P/N: 587-5100-360)
Medium: M860 ($\sigma = 1.02 \text{ mho/m}$; $\epsilon_r = 53.9$; $\rho = 1000 \text{ kg/m}^3$)

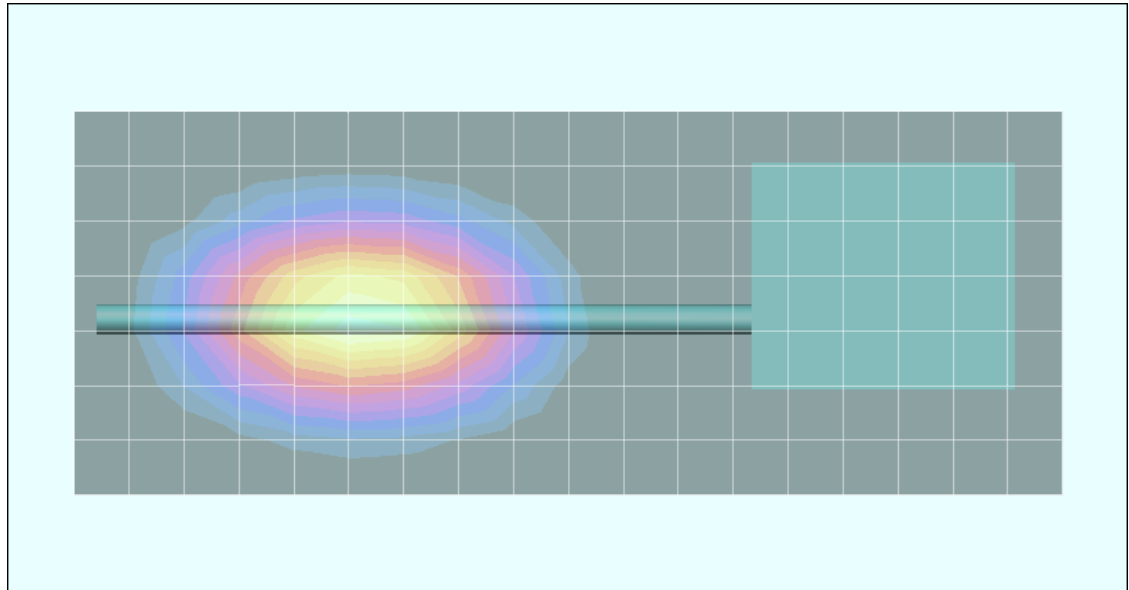
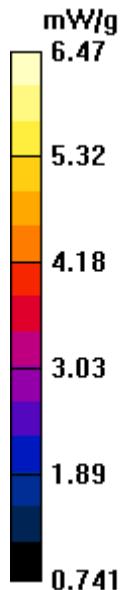
- Probe: ET3DV6 - SN1387; ConvF(6.24, 6.24, 6.24); Calibrated: 18/03/2004
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn353; Calibrated: 19/12/2003
- Phantom: Planar; Type: Plexiglas; Serial: 161
- Measurement SW: DASY4, V4.2 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 112

Body-Worn - 1.2 cm Lapel-Clip Separation Distance - Mid Channel/Area Scan (8x19x1):

Measurement grid: dx=15mm, dy=15mm

Body-Worn - 1.2 cm Lapel-Clip Separation Distance - Mid Channel/Zoom Scan (5x5x7)/Cube 0:

Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 20.1 V/m; Power Drift = -0.109 dB
Peak SAR (extrapolated) = 8.16 W/kg
SAR(1 g) = 6.08 mW/g; SAR(10 g) = 4.24 mW/g



Body-Worn SAR - NiMH Battery - Stubby Antenna (P/N: 501-0105-012)

Date Tested: 05/27/04

DUT: EF Johnson Model: 242-5172; Type: Portable FM PTT Speaker-Microphone with Antenna; P/N: 589-0015-058

Body-Worn Accessories: Lapel-Clip

Ambient Temp: 23.6 °C; Fluid Temp: 21.7 °C; Barometric Pressure: 101.5 kPa; Humidity: 36%

Communication System: FM Transmit Talk-Around
RF Output Power: 35.20 dBm (Conducted)
Frequency: 859.5125 MHz; Duty Cycle: 1:1
7.5V 3600mAh NiMH Battery Pack (P/N: 587-5100-360)
Medium: M860 ($\sigma = 1.02$ mho/m; $\epsilon_r = 53.9$; $\rho = 1000$ kg/m³)

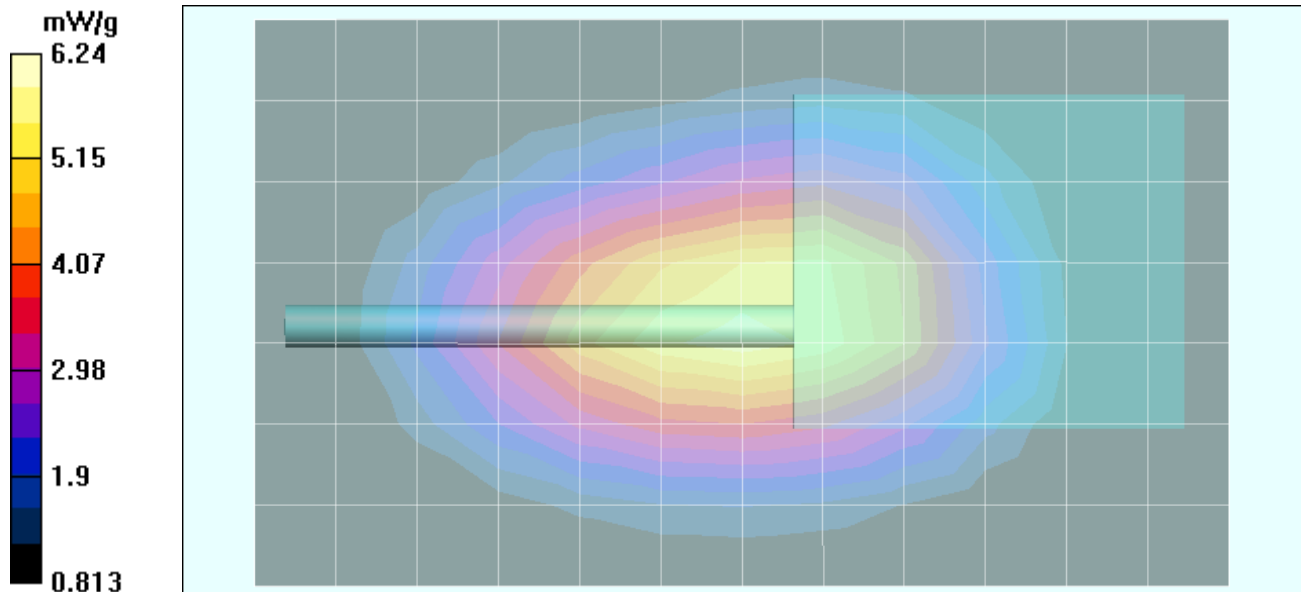
- Probe: ET3DV6 - SN1387; ConvF(6.24, 6.24, 6.24); Calibrated: 18/03/2004
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn353; Calibrated: 19/12/2003
- Phantom: Planar; Type: Plexiglas; Serial: 161
- Measurement SW: DASY4, V4.2 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 112

Body-Worn - 1.2 cm Lapel-Clip Separation Distance - Mid Channel/Area Scan (8x13x1):

Measurement grid: dx=15mm, dy=15mm

Body-Worn - 1.2 cm Lapel-Clip Separation Distance - Mid Channel/Zoom Scan (5x5x7)/Cube 0:

Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 83.2 V/m; Power Drift = -0.810 dB
Peak SAR (extrapolated) = 7.76 W/kg
SAR(1 g) = 5.88 mW/g; SAR(10 g) = 4.2 mW/g



Body-Worn SAR - NiMH Battery - Whip Antenna (P/N: 501-0105-013)

Date Tested: 05/27/04

DUT: EF Johnson Model: 242-5172; Type: Portable FM PTT Radio Transceiver; Serial: 51720A000A 00001

Body-Worn Accessories: Belt-Clip (P/N: 585-5100-128), Boom-Microphone Headset (P/N: 589-0015-059)

Ambient Temp: 23.6 °C; Fluid Temp: 21.7 °C; Barometric Pressure: 101.5 kPa; Humidity: 36%

Communication System: FM Transmit Talk-Around
RF Output Power: 34.76 dBm (Conducted)
Frequency: 769.0125 MHz; Duty Cycle: 1:1
7.5V 3600mAh NiMH Battery Pack (P/N: 587-5100-360)
Medium: M769 ($\sigma = 0.93$ mho/m; $\epsilon_r = 54.9$; $\rho = 1000$ kg/m³)

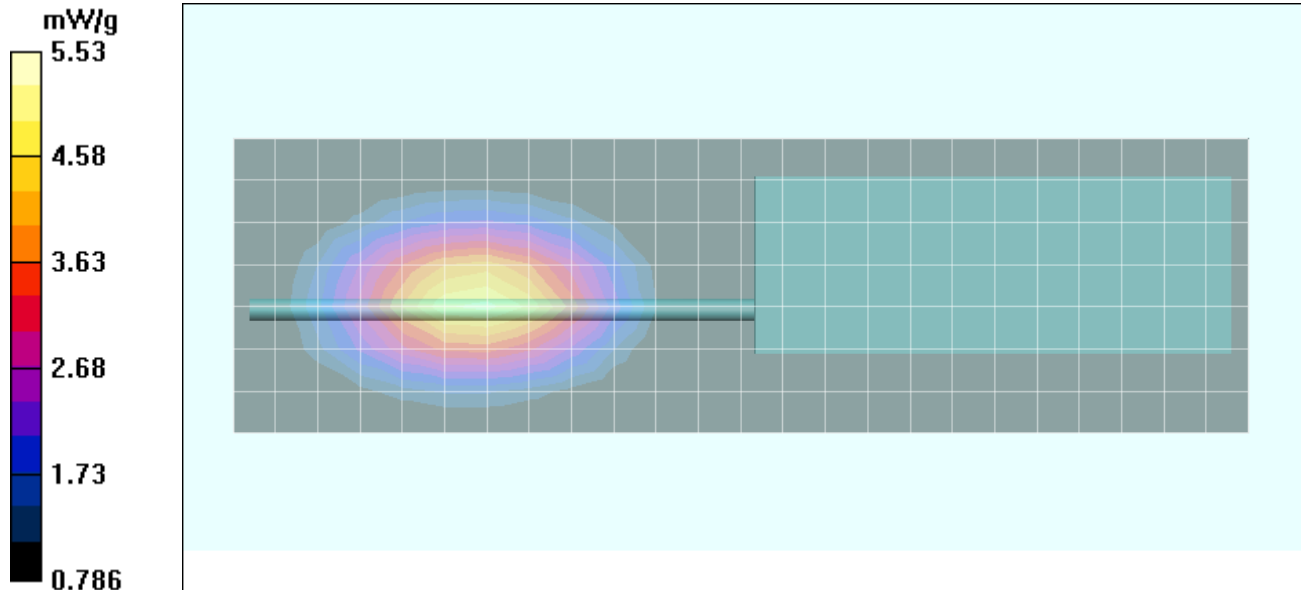
- Probe: ET3DV6 - SN1387; ConvF(6.24, 6.24, 6.24); Calibrated: 18/03/2004
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn353; Calibrated: 19/12/2003
- Phantom: Planar; Type: Plexiglas; Serial: 161
- Measurement SW: DASY4, V4.2 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 112

Body-Worn - 1.3 cm Belt-Clip Separation Distance - Mid Channel/Area Scan (8x25x1):

Measurement grid: dx=15mm, dy=15mm

Body-Worn - 1.3 cm Belt-Clip Separation Distance - Mid Channel/Zoom Scan (5x5x7)/Cube 0:

Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 16.2 V/m; Power Drift = -0.458 dB
Peak SAR (extrapolated) = 6.84 W/kg
SAR(1 g) = 5.24 mW/g; SAR(10 g) = 3.8 mW/g



Body-Worn SAR - Alkaline Battery Pack (Duracell Procell) - Whip Antenna (P/N: 501-0105-013)

Date Tested: 05/27/04

DUT: EF Johnson Model: 242-5172; Type: Portable FM PTT Radio Transceiver; Serial: 51720A000A 00001

Body-Worn Accessories: Belt-Clip (P/N: 585-5100-128), Boom-Microphone Headset (P/N: 589-0015-059)

Ambient Temp: 23.6 °C; Fluid Temp: 21.7 °C; Barometric Pressure: 101.5 kPa; Humidity: 36%

Communication System: FM Transmit Talk-Around
 RF Output Power: 34.73 dBm (Conducted)
 Frequency: 769.0125 MHz; Duty Cycle: 1:1
 9V AA Alkaline Duracell ProCell Battery Pack (Battery Case P/N: 250-5100-280)
 Medium: M769 ($\sigma = 0.93$ mho/m; $\epsilon_r = 54.9$; $\rho = 1000$ kg/m³)

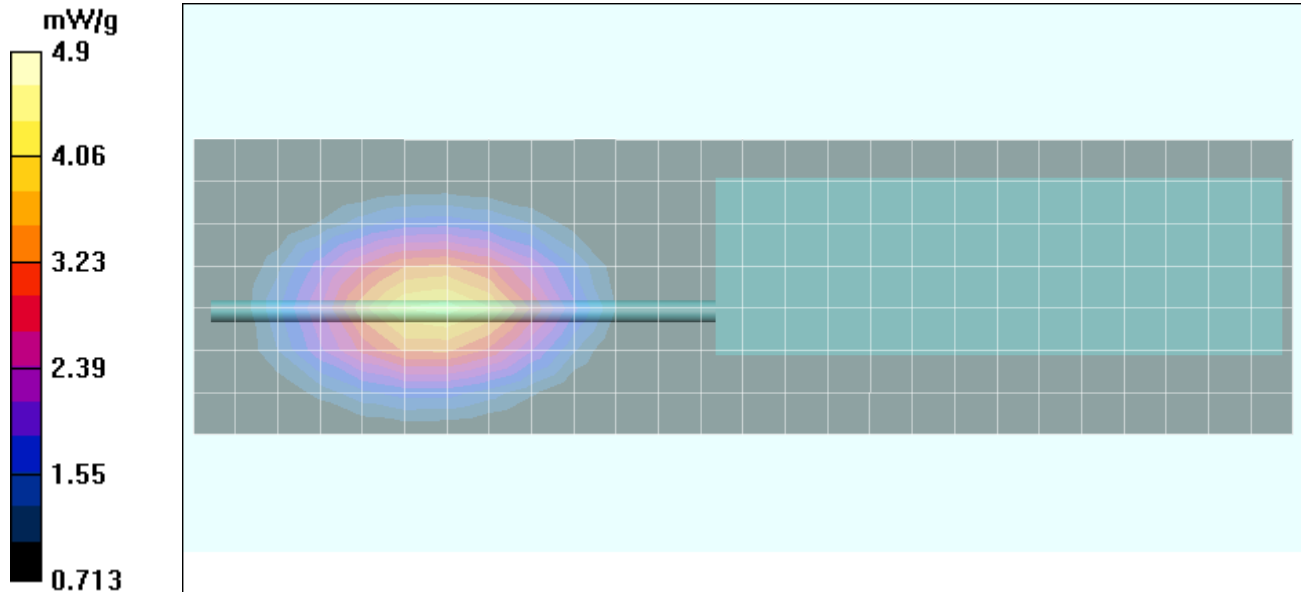
- Probe: ET3DV6 - SN1387; ConvF(6.24, 6.24, 6.24); Calibrated: 18/03/2004
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn353; Calibrated: 19/12/2003
- Phantom: Planar; Type: Plexiglas; Serial: 161
- Measurement SW: DASY4, V4.2 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 112

Body-Worn - 1.3 cm Belt-Clip Separation Distance - Mid Channel/Area Scan (8x27x1):

Measurement grid: dx=15mm, dy=15mm

Body-Worn - 1.3 cm Belt-Clip Separation Distance - Mid Channel/Zoom Scan (5x5x7)/Cube 0:

Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
 Reference Value = 14.9 V/m; Power Drift = -0.398 dB
 Peak SAR (extrapolated) = 6.01 W/kg
SAR(1 g) = 4.63 mW/g; SAR(10 g) = 3.38 mW/g



Body-Worn SAR - NiMH Battery - Whip Antenna (P/N: 501-0105-013)

Date Tested: 05/27/04

DUT: EF Johnson Model: 242-5172; Type: Portable FM PTT Radio Transceiver; Serial: 51720A000A 00001

Body-Worn Accessories: Belt-Clip (P/N: 585-5100-128), Boom-Microphone Headset (P/N: 589-0015-059)

Ambient Temp: 23.6 °C; Fluid Temp: 21.7 °C; Barometric Pressure: 101.5 kPa; Humidity: 36%

Communication System: FM Transmit
RF Output Power: 34.75 dBm (Conducted)
Frequency: 799.0125 MHz; Duty Cycle: 1:1
7.5V 3600mAh NiMH Battery Pack (P/N: 587-5100-360)
Medium: M799 ($\sigma = 0.96$ mho/m; $\epsilon_r = 54.6$; $\rho = 1000$ kg/m³)

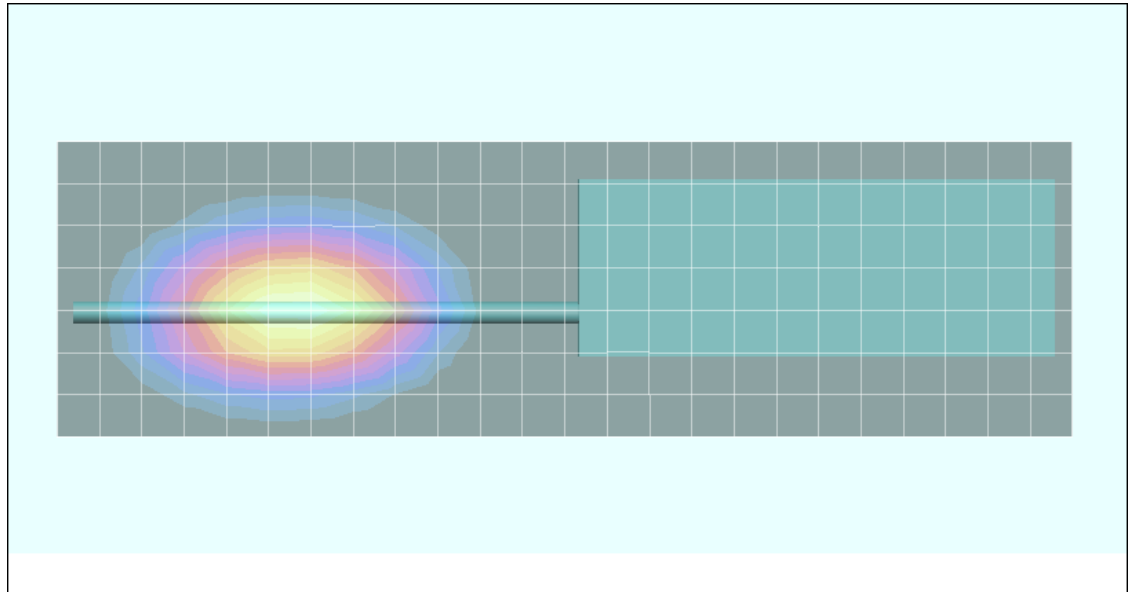
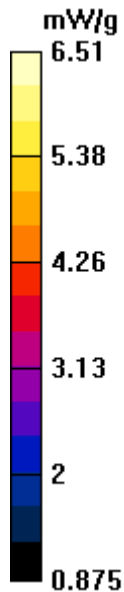
- Probe: ET3DV6 - SN1387; ConvF(6.24, 6.24, 6.24); Calibrated: 18/03/2004
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn353; Calibrated: 19/12/2003
- Phantom: Planar; Type: Plexiglas; Serial: 161
- Measurement SW: DASY4, V4.2 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 112

Body-Worn - 1.3 cm Belt-Clip Separation Distance - Mid Channel/Area Scan (8x25x1):

Measurement grid: dx=15mm, dy=15mm

Body-Worn - 1.3 cm Belt-Clip Separation Distance - Mid Channel/Zoom Scan (5x5x7)/Cube 0:

Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 13.5 V/m; Power Drift = -0.631 dB
Peak SAR (extrapolated) = 8.1 W/kg
SAR(1 g) = 6.10 mW/g; SAR(10 g) = 4.36 mW/g



Body-Worn SAR - Alkaline Battery Pack (Duracell Procell) - Whip Antenna (P/N: 501-0105-013)

Date Tested: 05/27/04

DUT: EF Johnson Model: 242-5172; Type: Portable FM PTT Radio Transceiver; Serial: 51720A000A 00001

Body-Worn Accessories: Belt-Clip (P/N: 585-5100-128), Boom-Microphone Headset (P/N: 589-0015-059)

Ambient Temp: 23.6 °C; Fluid Temp: 21.7 °C; Barometric Pressure: 101.5 kPa; Humidity: 36%

Communication System: FM Transmit
RF Output Power: 34.70 dBm (Conducted)
Frequency: 799.0125 MHz; Duty Cycle: 1:1
9V AA Alkaline Duracell ProCell Battery Pack (Battery Case P/N: 250-5100-280)
Medium: M799 ($\sigma = 0.96$ mho/m; $\epsilon_r = 54.6$; $\rho = 1000$ kg/m³)

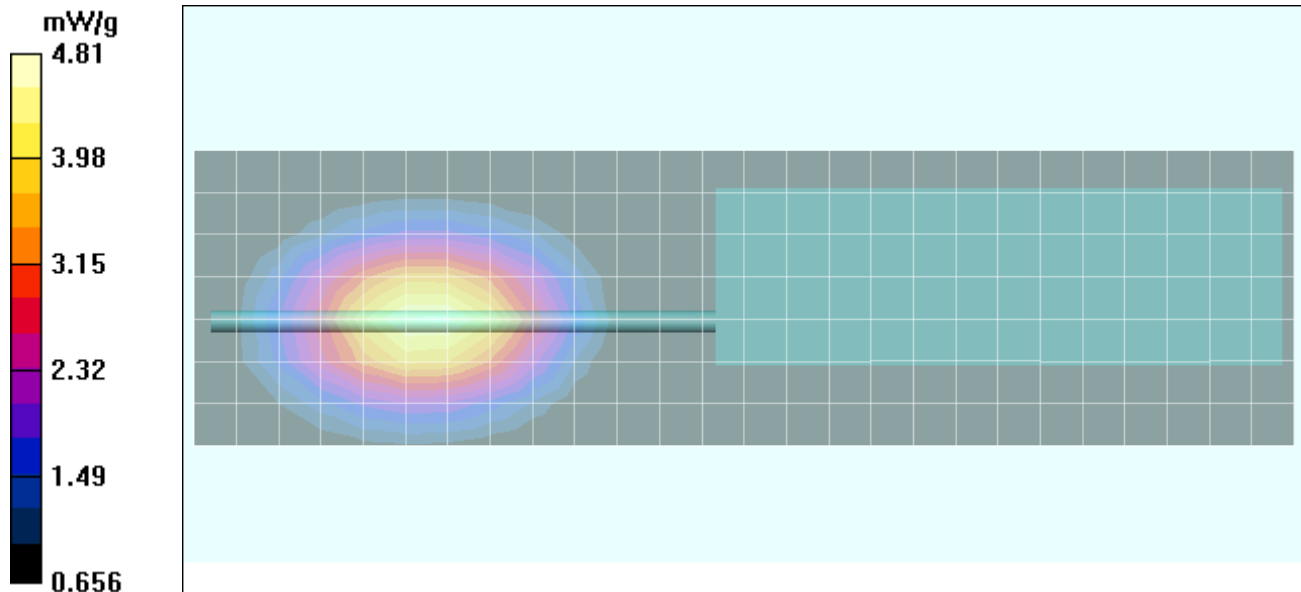
- Probe: ET3DV6 - SN1387; ConvF(6.24, 6.24, 6.24); Calibrated: 18/03/2004
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn353; Calibrated: 19/12/2003
- Phantom: Planar; Type: Plexiglas; Serial: 161
- Measurement SW: DASY4, V4.2 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 112

Body-Worn - 1.3 cm Belt-Clip Separation Distance - Mid Channel/Area Scan (8x27x1):

Measurement grid: dx=15mm, dy=15mm

Body-Worn - 1.3 cm Belt-Clip Separation Distance - Mid Channel/Zoom Scan (5x5x7)/Cube 0:

Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 12.9 V/m; Power Drift = -0.741 dB
Peak SAR (extrapolated) = 5.93 W/kg
SAR(1 g) = 4.53 mW/g; SAR(10 g) = 3.28 mW/g



Body-Worn SAR - NiMH Battery - Whip Antenna (P/N: 501-0105-013)

Date Tested: 05/28/04

DUT: EF Johnson Model: 242-5172; Type: Portable FM PTT Radio Transceiver; Serial: 51720A000A 00001

Body-Worn Accessories: Belt-Clip (P/N: 585-5100-128), Boom-Microphone Headset (P/N: 589-0015-059)

Ambient Temp: 23.2 °C; Fluid Temp: 21.5 °C; Barometric Pressure: 101.3 kPa; Humidity: 39%

Communication System: FM Transmit
RF Output Power: 35.18 dBm (Conducted)
Frequency: 806.0125 MHz; Duty Cycle: 1:1
7.5V 3600mAh NiMH Battery Pack (P/N: 587-5100-360)
Medium: M815 ($\sigma = 0.98 \text{ mho/m}$; $\epsilon_r = 54.4$; $\rho = 1000 \text{ kg/m}^3$)

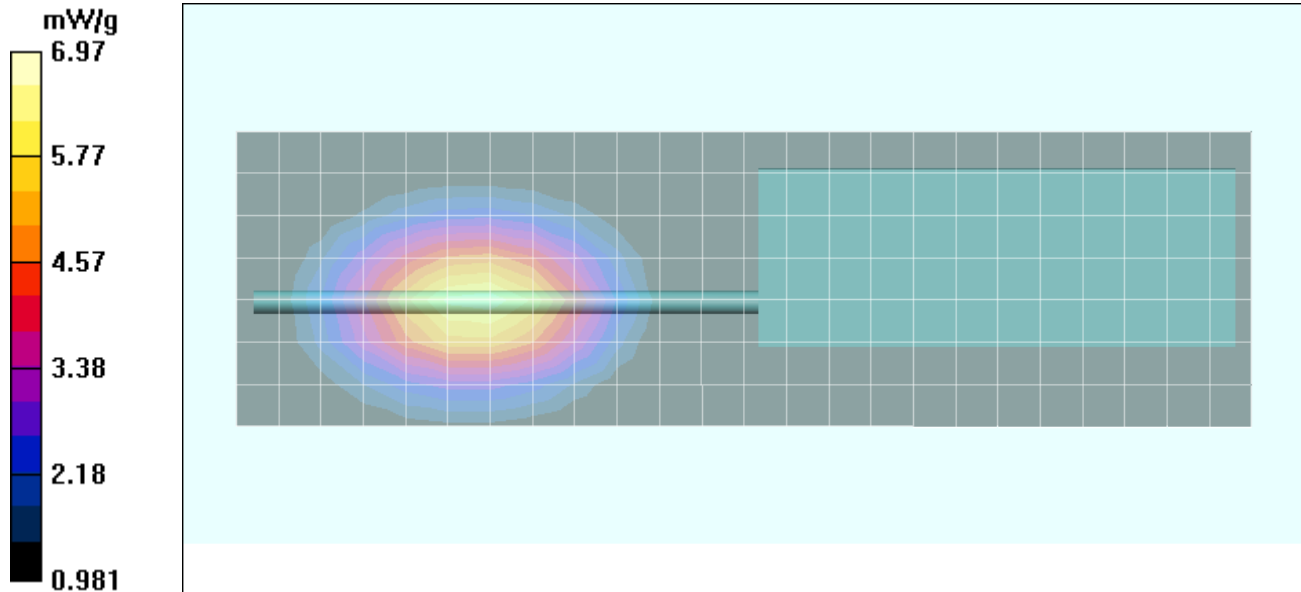
- Probe: ET3DV6 - SN1387; ConvF(6.24, 6.24, 6.24); Calibrated: 18/03/2004
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn353; Calibrated: 19/12/2003
- Phantom: Planar; Type: Plexiglas; Serial: 161
- Measurement SW: DASY4, V4.2 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 112

Body-Worn - 1.3 cm Belt-Clip Separation Distance - Low Channel/Area Scan (8x25x1):

Measurement grid: dx=15mm, dy=15mm

Body-Worn - 1.3 cm Belt-Clip Separation Distance - Low Channel/Zoom Scan (5x5x7)/Cube 0:

Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 14.4 V/m; Power Drift = -0.547 dB
Peak SAR (extrapolated) = 8.62 W/kg
SAR(1 g) = 6.56 mW/g; SAR(10 g) = 4.74 mW/g



Body-Worn SAR - NiMH Battery - Whip Antenna (P/N: 501-0105-013)

Date Tested: 05/28/04

DUT: EF Johnson Model: 242-5172; Type: Portable FM PTT Radio Transceiver; Serial: 51720A000A 00001

Body-Worn Accessories: Belt-Clip (P/N: 585-5100-128), Boom-Microphone Headset (P/N: 589-0015-059)

Ambient Temp: 23.2 °C; Fluid Temp: 21.5 °C; Barometric Pressure: 101.3 kPa; Humidity: 39%

Communication System: FM Transmit
RF Output Power: 35.12 dBm (Conducted)
Frequency: 814.5125 MHz; Duty Cycle: 1:1
7.5V 3600mAh NiMH Battery Pack (P/N: 587-5100-360)
Medium: M815 ($\sigma = 0.98$ mho/m; $\epsilon_r = 54.4$; $\rho = 1000$ kg/m³)

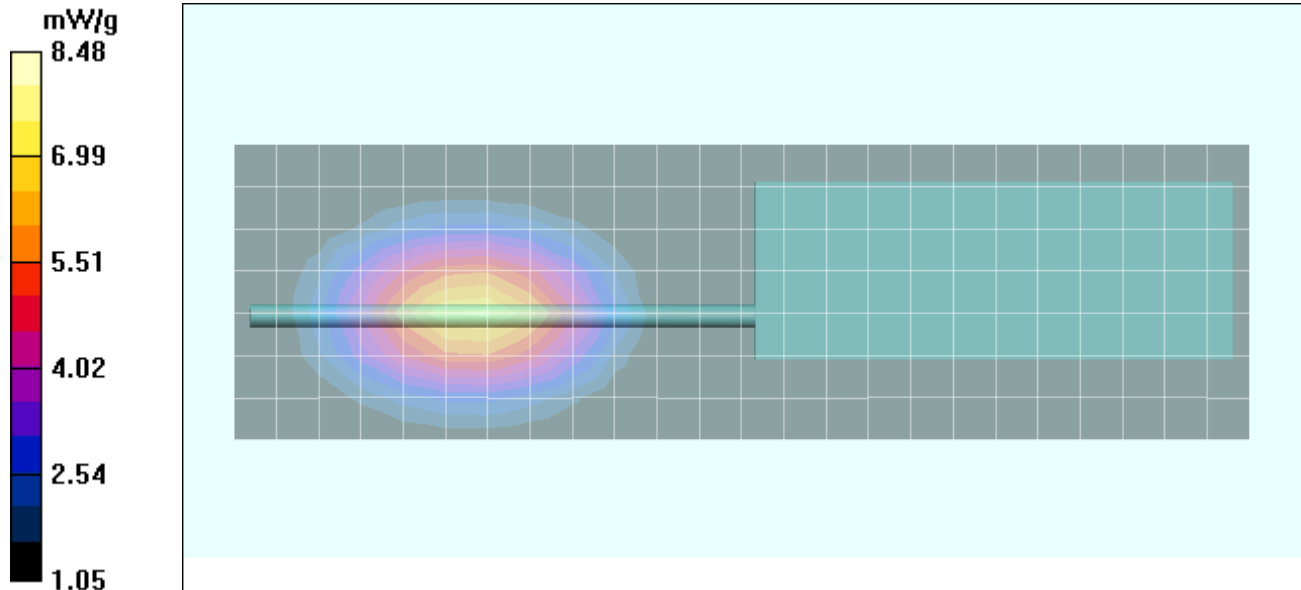
- Probe: ET3DV6 - SN1387; ConvF(6.24, 6.24, 6.24); Calibrated: 18/03/2004
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn353; Calibrated: 19/12/2003
- Phantom: Planar; Type: Plexiglas; Serial: 161
- Measurement SW: DASY4, V4.2 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 112

Body-Worn - 1.3 cm Belt-Clip Separation Distance - Mid Channel/Area Scan (8x25x1):

Measurement grid: dx=15mm, dy=15mm

Body-Worn - 1.3 cm Belt-Clip Separation Distance - Mid Channel/Zoom Scan (5x5x7)/Cube 0:

Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 13.7 V/m; Power Drift = -0.608 dB
Peak SAR (extrapolated) = 10.6 W/kg
SAR(1 g) = 7.99 mW/g; SAR(10 g) = 5.67 mW/g



Body-Worn SAR - NiMH Battery - Whip Antenna (P/N: 501-0105-013)

Date Tested: 05/28/04

DUT: EF Johnson Model: 242-5172; Type: Portable FM PTT Radio Transceiver; Serial: 51720A000A 00001

Body-Worn Accessories: Belt-Clip (P/N: 585-5100-128), Boom-Microphone Headset (P/N: 589-0015-059)

Ambient Temp: 23.2 °C; Fluid Temp: 21.5 °C; Barometric Pressure: 101.3 kPa; Humidity: 39%

Communication System: FM Transmit
RF Output Power: 35.21 dBm (Conducted)
Frequency: 823.9875 MHz; Duty Cycle: 1:1
7.5V 3600mAh NiMH Battery Pack (P/N: 587-5100-360)
Medium: M815 ($\sigma = 0.98$ mho/m; $\epsilon_r = 54.4$; $\rho = 1000$ kg/m³)

- Probe: ET3DV6 - SN1387; ConvF(6.24, 6.24, 6.24); Calibrated: 18/03/2004
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn353; Calibrated: 19/12/2003
- Phantom: Planar; Type: Plexiglas; Serial: 161
- Measurement SW: DASY4, V4.2 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 112

Body-Worn - 1.3 cm Belt-Clip Separation Distance - High Channel/Area Scan (8x25x1):

Measurement grid: dx=15mm, dy=15mm

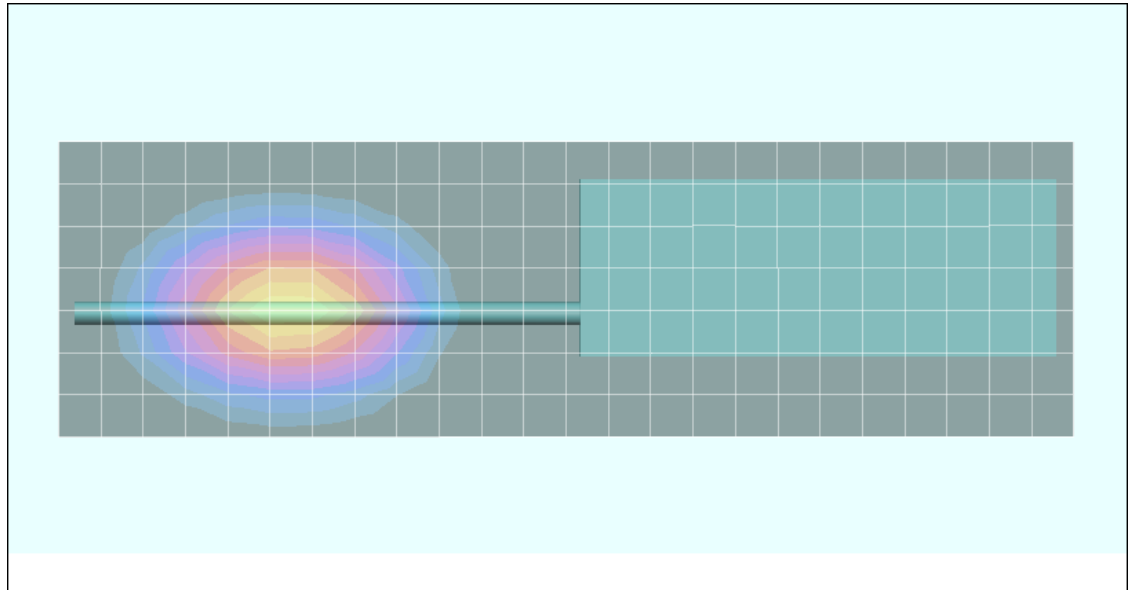
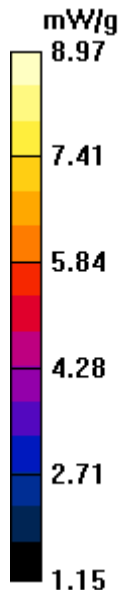
Body-Worn - 1.3 cm Belt-Clip Separation Distance - High Channel/Zoom Scan (5x5x7)/Cube 0:

Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

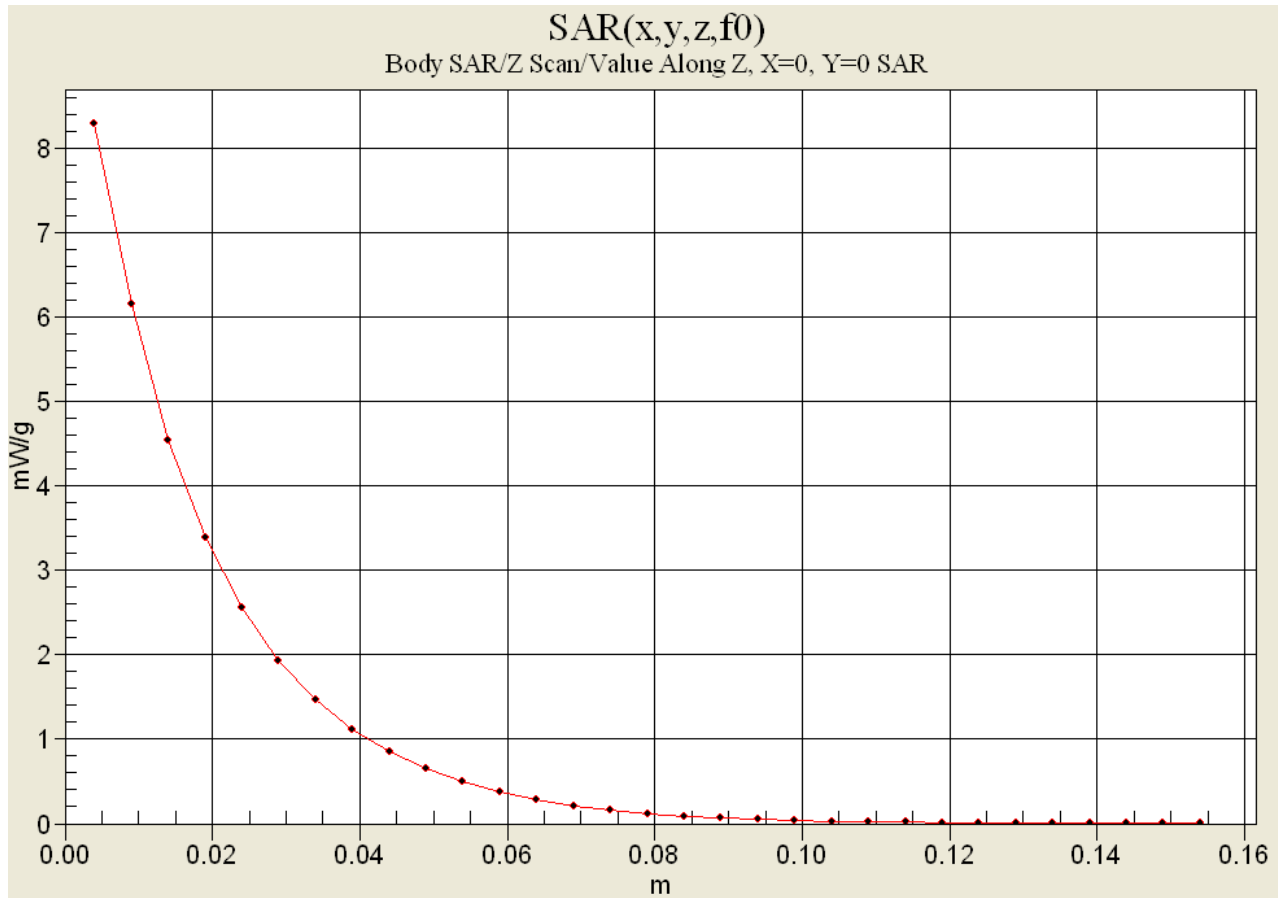
Reference Value = 16 V/m; Power Drift = -0.734 dB

Peak SAR (extrapolated) = 11.1 W/kg

SAR(1 g) = 8.44 mW/g; SAR(10 g) = 6.08 mW/g



Z-Axis Scan



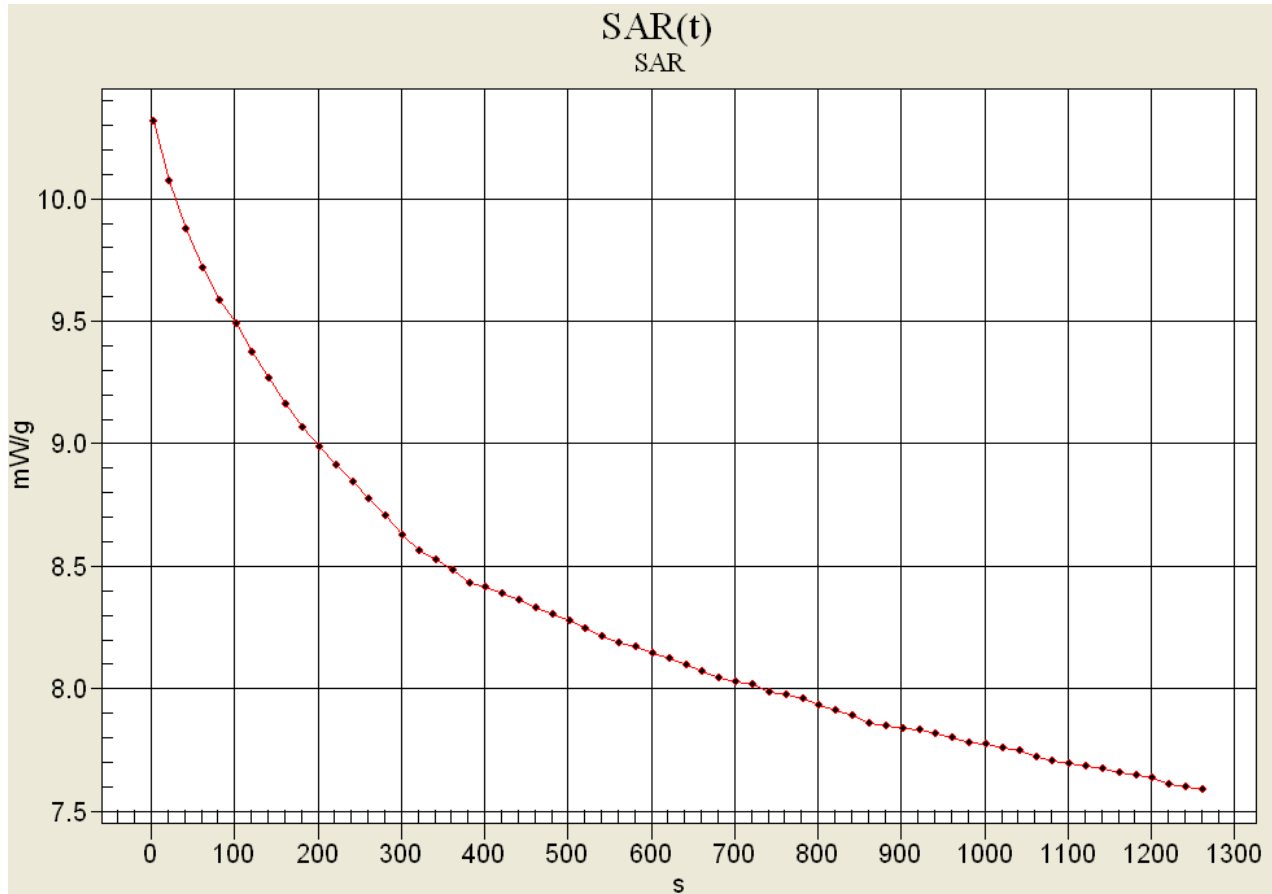
SAR-versus-Time Power Drift Evaluation

with Belt-Clip & Boom-Microphone Headset

NiMH Battery

Whip Antenna

High Channel (823.9875 MHz)



Initial SAR: 10.322 mW/g

End SAR: 7.602 mW/g (-1.328 dB)

SAR after 340s: 8.543 mW/g (-0.822 dB)

(340s: Zoom Scan Duration)

Body-Worn SAR - Alkaline Battery Pack (Duracell Procell) - Whip Antenna (P/N: 501-0105-013)

Date Tested: 05/28/04

DUT: EF Johnson Model: 242-5172; Type: Portable FM PTT Radio Transceiver; Serial: 51720A000A 00001

Body-Worn Accessories: Belt-Clip (P/N: 585-5100-128), Boom-Microphone Headset (P/N: 589-0015-059)

Ambient Temp: 23.2 °C; Fluid Temp: 21.5 °C; Barometric Pressure: 101.3 kPa; Humidity: 39%

Communication System: FM Transmit
RF Output Power: 35.21 dBm (Conducted)
Frequency: 806.0125 MHz; Duty Cycle: 1:1
9V AA Alkaline Duracell ProCell Battery Pack (Battery Case P/N: 250-5100-280)
Medium: M815 ($\sigma = 0.98$ mho/m; $\epsilon_r = 54.4$; $\rho = 1000$ kg/m³)

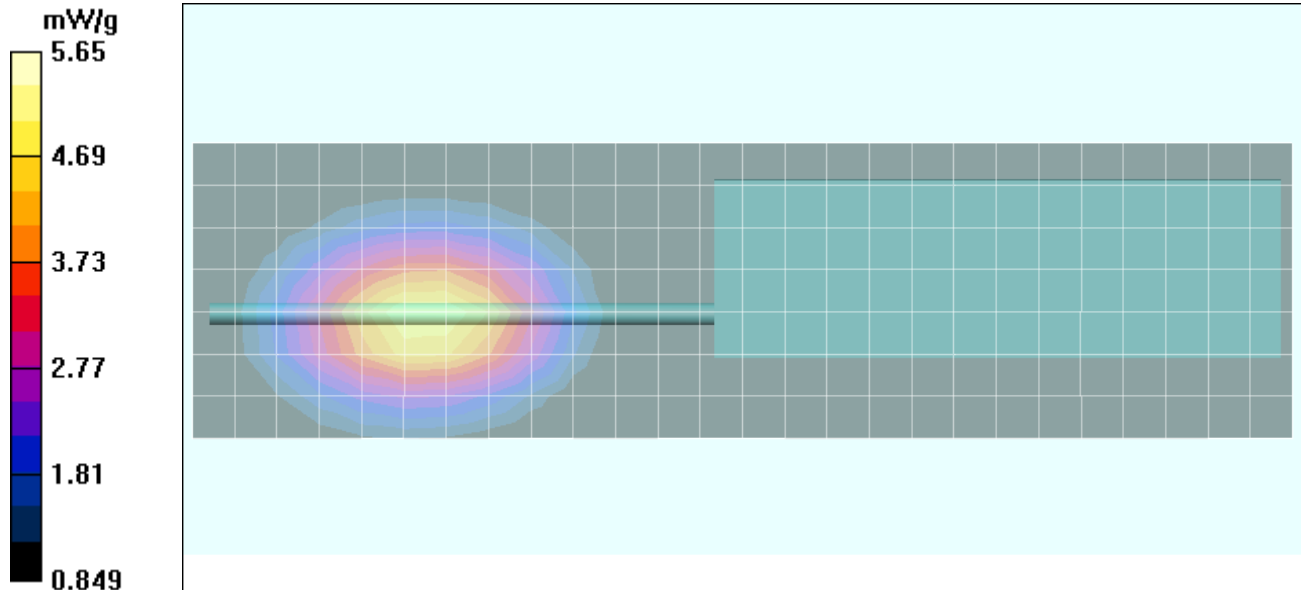
- Probe: ET3DV6 - SN1387; ConvF(6.24, 6.24, 6.24); Calibrated: 18/03/2004
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn353; Calibrated: 19/12/2003
- Phantom: Planar; Type: Plexiglas; Serial: 161
- Measurement SW: DASY4, V4.2 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 112

Body-Worn - 1.3 cm Belt-Clip Separation Distance - Low Channel/Area Scan (8x27x1):

Measurement grid: dx=15mm, dy=15mm

Body-Worn - 1.3 cm Belt-Clip Separation Distance - Low Channel/Zoom Scan (5x5x7)/Cube 0:

Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 14.4 V/m; Power Drift = -0.520 dB
Peak SAR (extrapolated) = 6.88 W/kg
SAR(1 g) = 5.33 mW/g; SAR(10 g) = 3.9 mW/g



Body-Worn SAR - Alkaline Battery Pack (Duracell Procell) - Whip Antenna (P/N: 501-0105-013)

Date Tested: 05/28/04

DUT: EF Johnson Model: 242-5172; Type: Portable FM PTT Radio Transceiver; Serial: 51720A000A 00001

Body-Worn Accessories: Belt-Clip (P/N: 585-5100-128), Boom-Microphone Headset (P/N: 589-0015-059)

Ambient Temp: 23.2 °C; Fluid Temp: 21.5 °C; Barometric Pressure: 101.3 kPa; Humidity: 39%

Communication System: FM Transmit
RF Output Power: 35.12 dBm (Conducted)
Frequency: 814.5125 MHz; Duty Cycle: 1:1
9V AA Alkaline Duracell ProCell Battery Pack (Battery Case P/N: 250-5100-280)
Medium: M815 ($\sigma = 0.98$ mho/m; $\epsilon_r = 54.4$; $\rho = 1000$ kg/m³)

- Probe: ET3DV6 - SN1387; ConvF(6.24, 6.24, 6.24); Calibrated: 18/03/2004
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn353; Calibrated: 19/12/2003
- Phantom: Planar; Type: Plexiglas; Serial: 161
- Measurement SW: DASY4, V4.2 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 112

Body-Worn - 1.3 cm Belt-Clip Separation Distance - Mid Channel/Area Scan (8x27x1):

Measurement grid: dx=15mm, dy=15mm

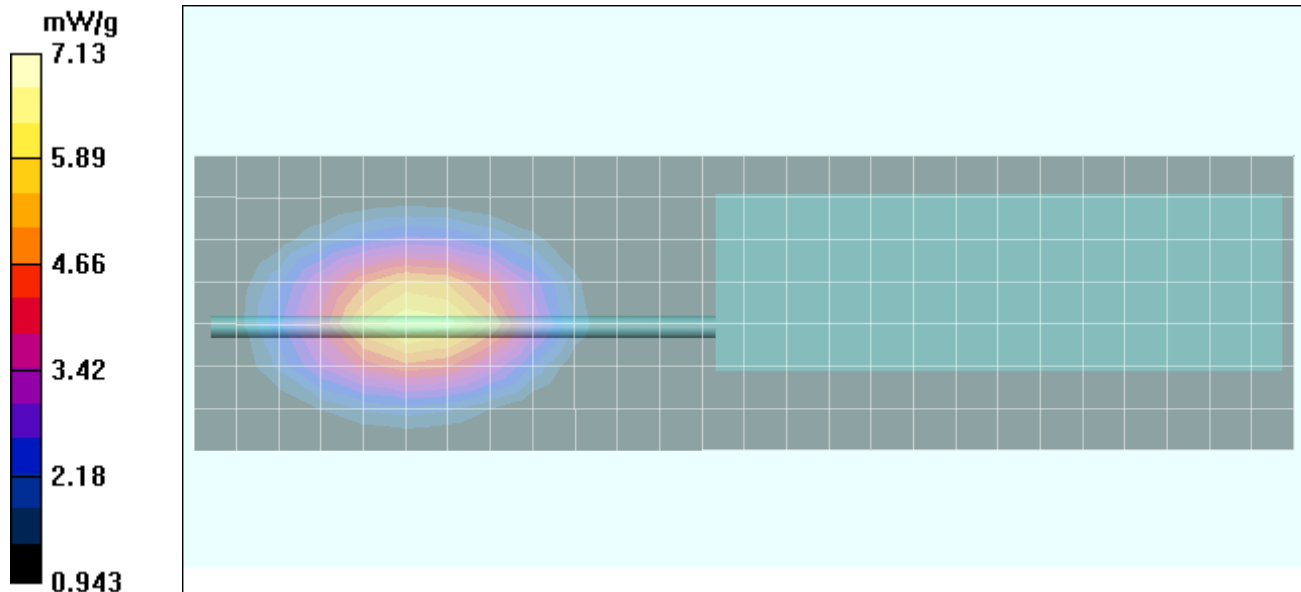
Body-Worn - 1.3 cm Belt-Clip Separation Distance - Mid Channel/Zoom Scan (5x5x7)/Cube 0:

Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 12.8 V/m; Power Drift = -1.06 dB

Peak SAR (extrapolated) = 8.85 W/kg

SAR(1 g) = 6.79 mW/g; SAR(10 g) = 4.91 mW/g



Body-Worn SAR - Alkaline Battery Pack (Duracell Procell) - Whip Antenna (P/N: 501-0105-013)

Date Tested: 05/28/04

DUT: EF Johnson Model: 242-5172; Type: Portable FM PTT Radio Transceiver; Serial: 51720A000A 00001

Body-Worn Accessories: Belt-Clip (P/N: 585-5100-128), Boom-Microphone Headset (P/N: 589-0015-059)

Ambient Temp: 23.2 °C; Fluid Temp: 21.5 °C; Barometric Pressure: 101.3 kPa; Humidity: 39%

Communication System: FM Transmit

RF Output Power: 35.16 dBm (Conducted)

Frequency: 823.9875 MHz; Duty Cycle: 1:1

9V AA Alkaline Duracell ProCell Battery Pack (Battery Case P/N: 250-5100-280)

Medium: M815 ($\sigma = 0.98$ mho/m; $\epsilon_r = 54.4$; $\rho = 1000$ kg/m³)

- Probe: ET3DV6 - SN1387; ConvF(6.24, 6.24, 6.24); Calibrated: 18/03/2004
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn353; Calibrated: 19/12/2003
- Phantom: Planar; Type: Plexiglas; Serial: 161
- Measurement SW: DASY4, V4.2 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 112

Body-Worn - 1.3 cm Belt-Clip Separation Distance - High Channel/Area Scan (8x27x1):

Measurement grid: dx=15mm, dy=15mm

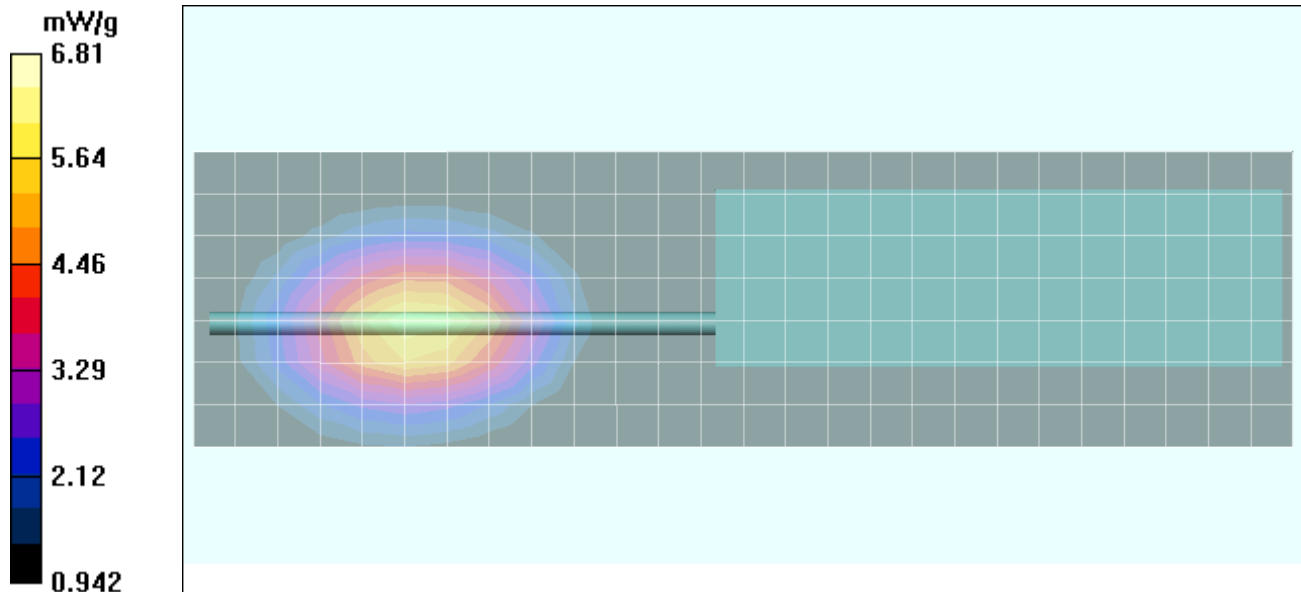
Body-Worn - 1.3 cm Belt-Clip Separation Distance - High Channel/Zoom Scan (5x5x7)/Cube 0:

Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 15 V/m; Power Drift = -0.468 dB

Peak SAR (extrapolated) = 8.34 W/kg

SAR(1 g) = 6.40 mW/g; SAR(10 g) = 4.63 mW/g



Body-Worn SAR - NiMH Battery - Whip Antenna (P/N: 501-0105-013)

Date Tested: 05/28/04

DUT: EF Johnson Model: 242-5172; Type: Portable FM PTT Radio Transceiver; Serial: 51720A000A 00001

Body-Worn Accessories: Belt-Clip (P/N: 585-5100-128), Boom-Microphone Headset (P/N: 589-0015-059)

Ambient Temp: 23.2 °C; Fluid Temp: 21.5 °C; Barometric Pressure: 101.3 kPa; Humidity: 39%

Communication System: FM Transmit Talk-Around
RF Output Power: 35.14 dBm (Conducted)
Frequency: 859.5125 MHz; Duty Cycle: 1:1
7.5V 3600mAh NiMH Battery Pack (P/N: 587-5100-360)
Medium: M860 ($\sigma = 1.03$ mho/m; $\epsilon_r = 53.9$; $\rho = 1000$ kg/m³)

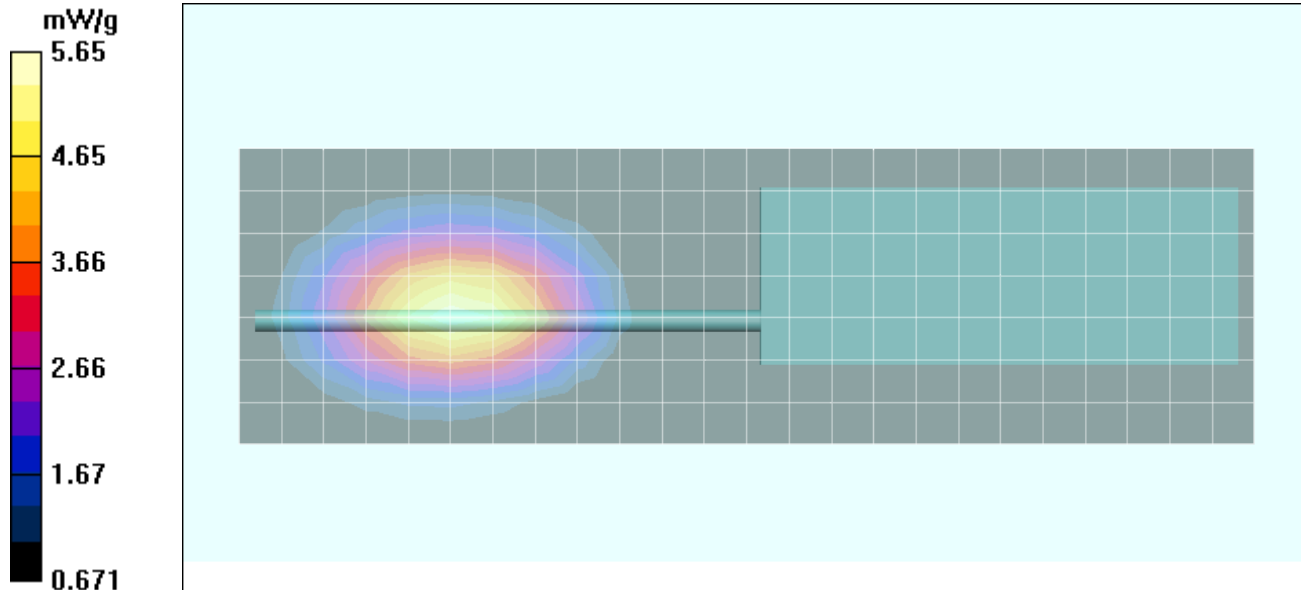
- Probe: ET3DV6 - SN1387; ConvF(6.24, 6.24, 6.24); Calibrated: 18/03/2004
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn353; Calibrated: 19/12/2003
- Phantom: Planar; Type: Plexiglas; Serial: 161
- Measurement SW: DASY4, V4.2 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 112

Body-Worn - 1.3 cm Belt-Clip Separation Distance - Mid Channel/Area Scan (8x25x1):

Measurement grid: dx=15mm, dy=15mm

Body-Worn - 1.3 cm Belt-Clip Separation Distance - Mid Channel/Zoom Scan (5x5x7)/Cube 0:

Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 16.7 V/m; Power Drift = -0.0839 dB
Peak SAR (extrapolated) = 7 W/kg
SAR(1 g) = 5.27 mW/g; SAR(10 g) = 3.7 mW/g



Body-Worn SAR - Alkaline Battery Pack (Duracell Procell) - Whip Antenna (P/N: 501-0105-013)

Date Tested: 05/28/04

DUT: EF Johnson Model: 242-5172; Type: Portable FM PTT Radio Transceiver; Serial: 51720A000A 00001

Body-Worn Accessories: Belt-Clip (P/N: 585-5100-128), Boom-Microphone Headset (P/N: 589-0015-059)

Ambient Temp: 23.2 °C; Fluid Temp: 21.5 °C; Barometric Pressure: 101.3 kPa; Humidity: 39%

Communication System: FM Transmit Talk-Around
 RF Output Power: 35.15 dBm (Conducted)
 Frequency: 859.5125 MHz; Duty Cycle: 1:1
 9V AA Alkaline Duracell ProCell Battery Pack (Battery Case P/N: 250-5100-280)
 Medium: M860 ($\sigma = 1.03 \text{ mho/m}$; $\epsilon_r = 53.9$; $\rho = 1000 \text{ kg/m}^3$)

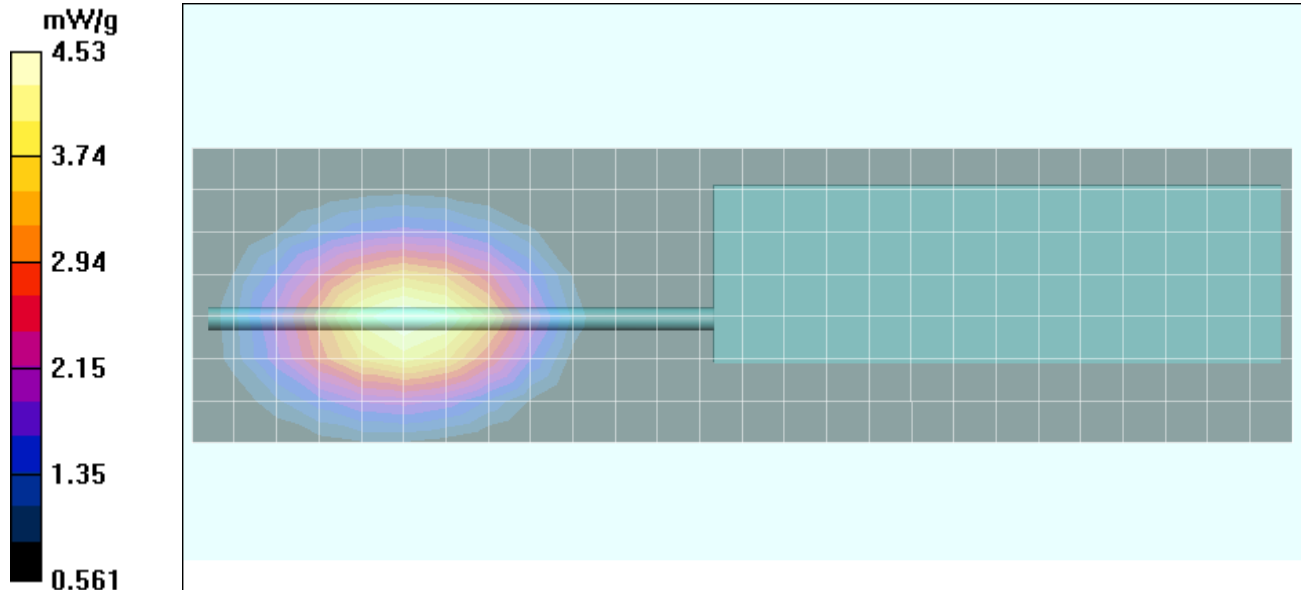
- Probe: ET3DV6 - SN1387; ConvF(6.24, 6.24, 6.24); Calibrated: 18/03/2004
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn353; Calibrated: 19/12/2003
- Phantom: Planar; Type: Plexiglas; Serial: 161
- Measurement SW: DASY4, V4.2 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 112

Body-Worn - 1.3 cm Belt-Clip Separation Distance - Mid Channel/Area Scan (8x27x1):

Measurement grid: dx=15mm, dy=15mm

Body-Worn - 1.3 cm Belt-Clip Separation Distance - Mid Channel/Zoom Scan (5x5x7)/Cube 0:

Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
 Reference Value = 15.6 V/m; Power Drift = -0.149 dB
 Peak SAR (extrapolated) = 5.62 W/kg
SAR(1 g) = 4.27 mW/g; SAR(10 g) = 3.06 mW/g



Body-Worn SAR - NiMH Battery - Stubby Antenna (P/N: 501-0105-012)

Date Tested: 05/28/04

DUT: EF Johnson Model: 242-5172; Type: Portable FM PTT Radio Transceiver; Serial: 51720A000A 00001
Body-Worn Accessories: Belt-Clip (P/N: 585-5100-128), Boom-Microphone Headset (P/N: 589-0015-059)

Ambient Temp: 23.2 °C; Fluid Temp: 21.5 °C; Barometric Pressure: 101.3 kPa; Humidity: 39%

Communication System: FM Transmit Talk-Around

RF Output Power: 34.70 dBm (Conducted)

RF Output Power: 34.71 dBm (Conducted) - 2nd Maximum

RF Output Power: 34.74 dBm (Conducted) - 3rd Maximum

Frequency: 769.0125 MHz; Duty Cycle: 1:1

7.5V 3600mAh NiMH Battery Pack (P/N: 587-5100-360)

Medium: M769 ($\sigma = 0.91$ mho/m; $\epsilon_r = 53.7$; $\rho = 1000$ kg/m³)

- Probe: ET3DV6 - SN1387; ConvF(6.24, 6.24, 6.24); Calibrated: 18/03/2004

- Sensor-Surface: 4mm (Mechanical Surface Detection)

- Electronics: DAE3 Sn353; Calibrated: 19/12/2003

- Phantom: Planar; Type: Plexiglas; Serial: 161

- Measurement SW: DASY4, V4.2 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 112

Body-Worn - 1.3 cm Belt-Clip Separation Distance - Mid Channel/Area Scan (8x19x1):

Measurement grid: dx=15mm, dy=15mm

Body-Worn - 1.3 cm Belt-Clip Separation Distance - Mid Channel/Zoom Scan (5x5x7)/Cube 0:

Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 66.4 V/m; Power Drift = -0.529 dB

Peak SAR (extrapolated) = 9.94 W/kg

SAR(1 g) = 5.21 mW/g; SAR(10 g) = 3.2 mW/g

Body-Worn - 1.3 cm Belt-Clip Separation Distance - Mid Channel/Zoom Scan (5x5x7)/Cube 1:

Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 66.4 V/m; Power Drift = -0.346 dB

Peak SAR (extrapolated) = 5.48 W/kg

SAR(1 g) = 4.12 mW/g; SAR(10 g) = 2.93 mW/g

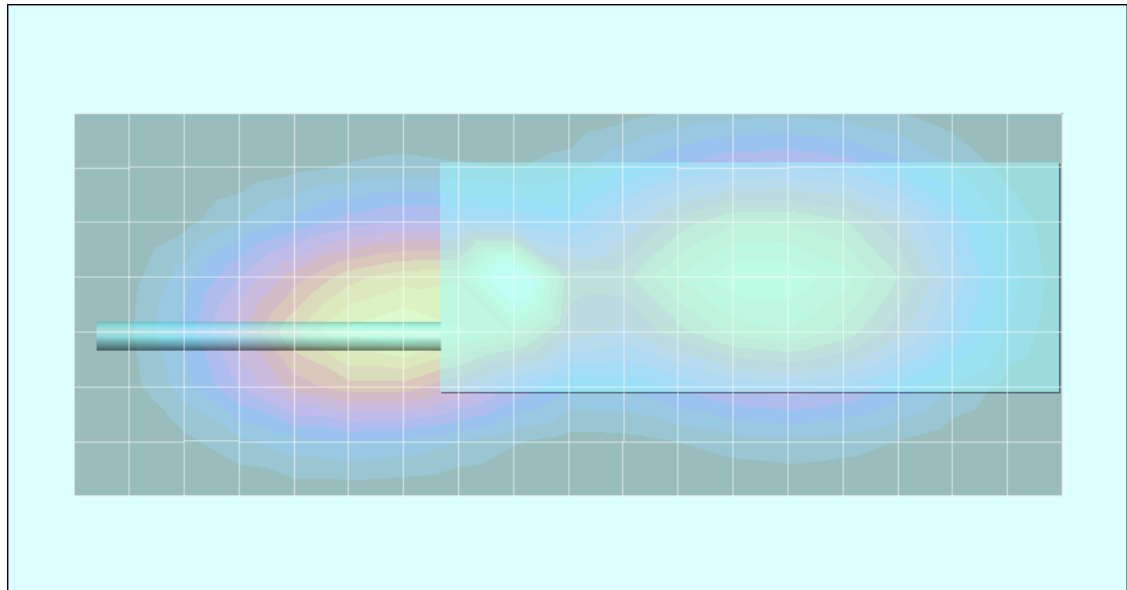
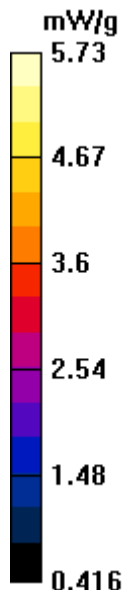
Body-Worn - 1.3 cm Belt-Clip Separation Distance - Mid Channel/Zoom Scan (5x5x7)/Cube 2:

Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 66.4 V/m; Power Drift = -0.232 dB

Peak SAR (extrapolated) = 4.52 W/kg

SAR(1 g) = 3.66 mW/g; SAR(10 g) = 2.76 mW/g



Body-Worn SAR - Alkaline Battery Pack (Duracell Procell) - Stubby Antenna (P/N: 501-0105-012)

Date Tested: 05/28/04

DUT: EF Johnson Model: 242-5172; Type: Portable FM PTT Radio Transceiver; Serial: 51720A000A 00001
Body-Worn Accessories: Belt-Clip (P/N: 585-5100-128), Boom-Microphone Headset (P/N: 589-0015-059)

Ambient Temp: 23.2 °C; Fluid Temp: 21.5 °C; Barometric Pressure: 101.3 kPa; Humidity: 39%

Communication System: FM Transmit Talk-Around
RF Output Power: 34.79 dBm (Conducted)
RF Output Power: 34.86 dBm (Conducted) - 2nd Maximum
RF Output Power: 34.84 dBm (Conducted) - 3rd Maximum
Frequency: 769.0125 MHz; Duty Cycle: 1:1
9V AA Alkaline Duracell ProCell Battery Pack (Battery Case P/N: 250-5100-280)
Medium: M769 ($\sigma = 0.91$ mho/m; $\epsilon_r = 53.7$; $\rho = 1000$ kg/m³)
- Probe: ET3DV6 - SN1387; ConvF(6.24, 6.24, 6.24); Calibrated: 18/03/2004
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn353; Calibrated: 19/12/2003
- Phantom: Planar; Type: Plexiglas; Serial: 161
- Measurement SW: DASY4, V4.2 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 112

Body-Worn - 1.3 cm Belt-Clip Separation Distance - Mid Channel/Area Scan (8x21x1):

Measurement grid: dx=15mm, dy=15mm

Body-Worn - 1.3 cm Belt-Clip Separation Distance - Mid Channel/Zoom Scan (5x5x7)/Cube 0:

Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 58.6 V/m; Power Drift = -0.695 dB
Peak SAR (extrapolated) = 4.54 W/kg

SAR(1 g) = 3.45 mW/g; SAR(10 g) = 2.49 mW/g

Body-Worn - 1.3 cm Belt-Clip Separation Distance - Mid Channel/Zoom Scan (5x5x7)/Cube 1:

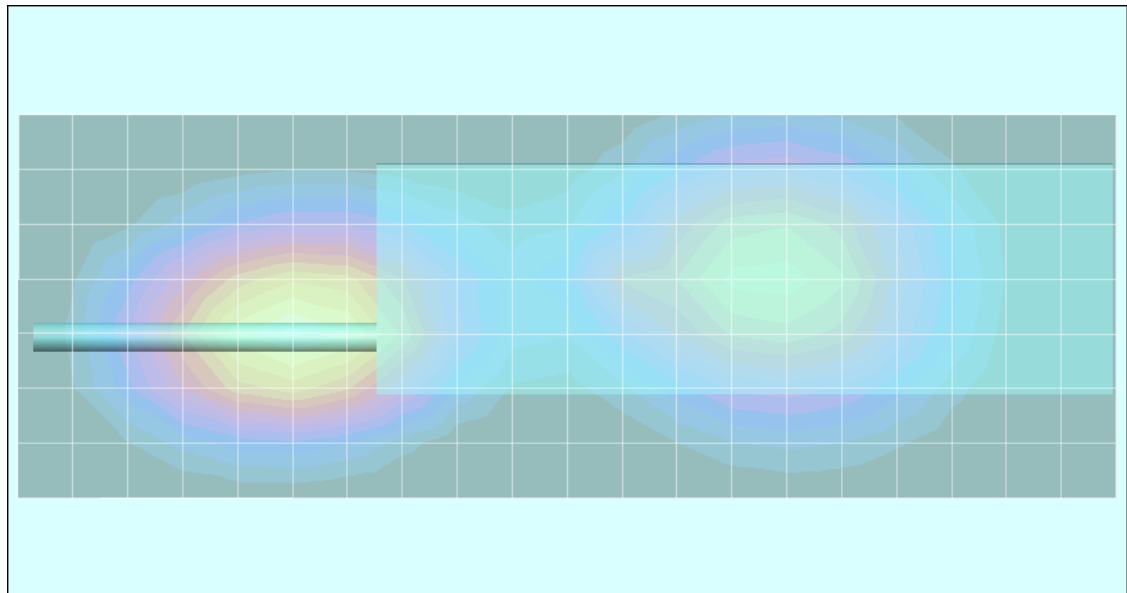
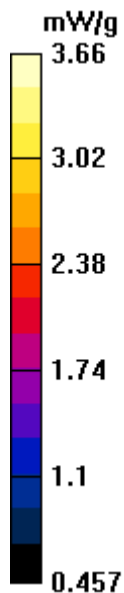
Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 58.6 V/m; Power Drift = -0.567 dB
Maximum value of SAR (measured) = 3 mW/g
Peak SAR (extrapolated) = 3.6 W/kg

SAR(1 g) = 2.87 mW/g; SAR(10 g) = 2.14 mW/g

Body-Worn - 1.3 cm Belt-Clip Separation Distance - Mid Channel/Zoom Scan (5x5x7)/Cube 2:

Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 58.6 V/m; Power Drift = -0.628 dB
Peak SAR (extrapolated) = 3.93 W/kg

SAR(1 g) = 2.93 mW/g; SAR(10 g) = 2.03 mW/g



Body-Worn SAR - NiMH Battery - Stubby Antenna (P/N: 501-0105-012)

Date Tested: 05/28/04

DUT: EF Johnson Model: 242-5172; Type: Portable FM PTT Radio Transceiver; Serial: 51720A000A 00001
Body-Worn Accessories: Belt-Clip (P/N: 585-5100-128), Boom-Microphone Headset (P/N: 589-0015-059)

Ambient Temp: 23.2 °C; Fluid Temp: 21.5 °C; Barometric Pressure: 101.3 kPa; Humidity: 39%

Communication System: FM Transmit

RF Output Power: 34.68 dBm (Conducted)

RF Output Power: 34.71 dBm (Conducted) - 2nd Maximum

RF Output Power: 34.76 dBm (Conducted) - 3rd Maximum

Frequency: 799.0125 MHz; Duty Cycle: 1:1

7.5V 3600mAh NiMH Battery Pack (P/N: 587-5100-360)

Medium: M799 ($\sigma = 0.94$ mho/m; $\epsilon_r = 53.5$; $\rho = 1000$ kg/m³)

- Probe: ET3DV6 - SN1387; ConvF(6.24, 6.24, 6.24); Calibrated: 18/03/2004

- Sensor-Surface: 4mm (Mechanical Surface Detection)

- Electronics: DAE3 Sn353; Calibrated: 19/12/2003

- Phantom: Planar; Type: Plexiglas; Serial: 161

- Measurement SW: DASY4, V4.2 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 112

Body-Worn - 1.3 cm Belt-Clip Separation Distance - Mid Channel/Area Scan (8x19x1):

Measurement grid: dx=15mm, dy=15mm

Body-Worn - 1.3 cm Belt-Clip Separation Distance - Mid Channel/Zoom Scan (5x5x7)/Cube 0:

Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 71.6 V/m; Power Drift = -0.209 dB

Peak SAR (extrapolated) = 9.9 W/kg

SAR(1 g) = 5.25 mW/g; SAR(10 g) = 3.32 mW/g

Body-Worn - 1.3 cm Belt-Clip Separation Distance - Mid Channel/Zoom Scan (5x5x7)/Cube 1:

Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 71.6 V/m; Power Drift = -0.322 dB

Peak SAR (extrapolated) = 6.73 W/kg

SAR(1 g) = 5.07 mW/g; SAR(10 g) = 3.62 mW/g

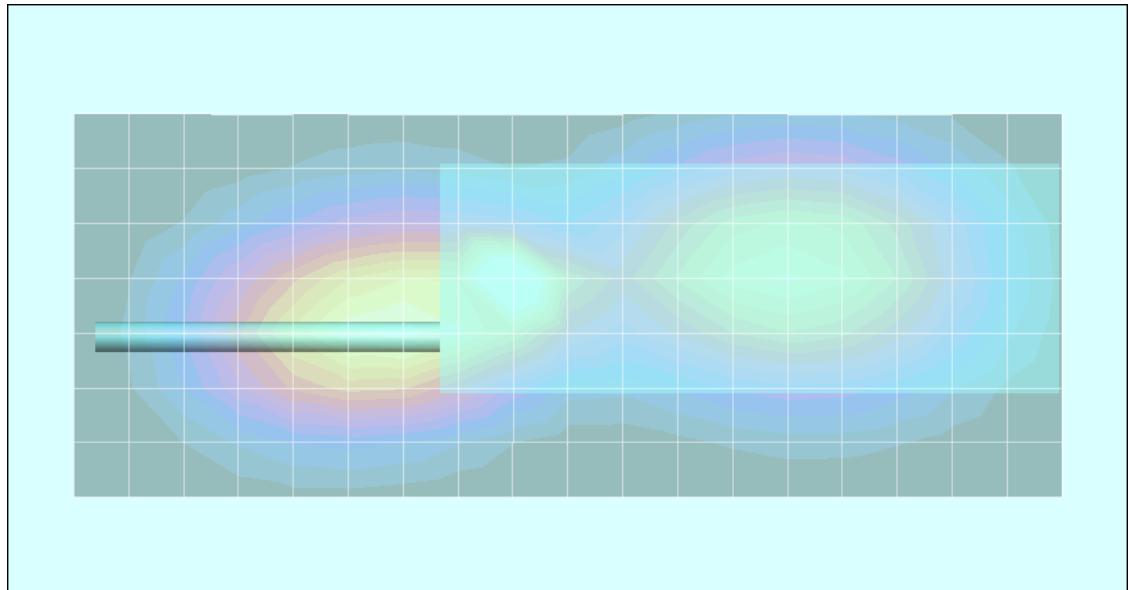
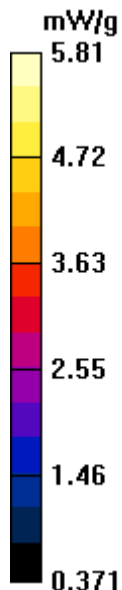
Body-Worn - 1.3 cm Belt-Clip Separation Distance - Mid Channel/Zoom Scan (5x5x7)/Cube 2:

Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 71.6 V/m; Power Drift = -0.305 dB

Peak SAR (extrapolated) = 5.74 W/kg

SAR(1 g) = 4.62 mW/g; SAR(10 g) = 3.46 mW/g



Body-Worn SAR - Alkaline Battery Pack (Duracell Procell) - Stubby Antenna (P/N: 501-0105-012)

Date Tested: 05/28/04

DUT: EF Johnson Model: 242-5172; Type: Portable FM PTT Radio Transceiver; Serial: 51720A000A 00001

Body-Worn Accessories: Belt-Clip (P/N: 585-5100-128), Boom-Microphone Headset (P/N: 589-0015-059)

Ambient Temp: 23.2 °C; Fluid Temp: 21.5 °C; Barometric Pressure: 101.3 kPa; Humidity: 39%

Communication System: FM Transmit
 RF Output Power: 34.86 dBm (Conducted)
 RF Output Power: 34.84 dBm (Conducted) - 2nd Maximum
 Frequency: 799.0125 MHz; Duty Cycle: 1:1
 9V AA Alkaline Duracell ProCell Battery Pack (Battery Case P/N: 250-5100-280)
 Medium: M799 ($\sigma = 0.94$ mho/m; $\epsilon_r = 53.5$; $\rho = 1000$ kg/m³)

- Probe: ET3DV6 - SN1387; ConvF(6.24, 6.24, 6.24); Calibrated: 18/03/2004
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn353; Calibrated: 19/12/2003
- Phantom: Planar; Type: Plexiglas; Serial: 161
- Measurement SW: DASY4, V4.2 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 112

Body-Worn - 1.3 cm Belt-Clip Separation Distance - Mid Channel/Area Scan (8x21x1):

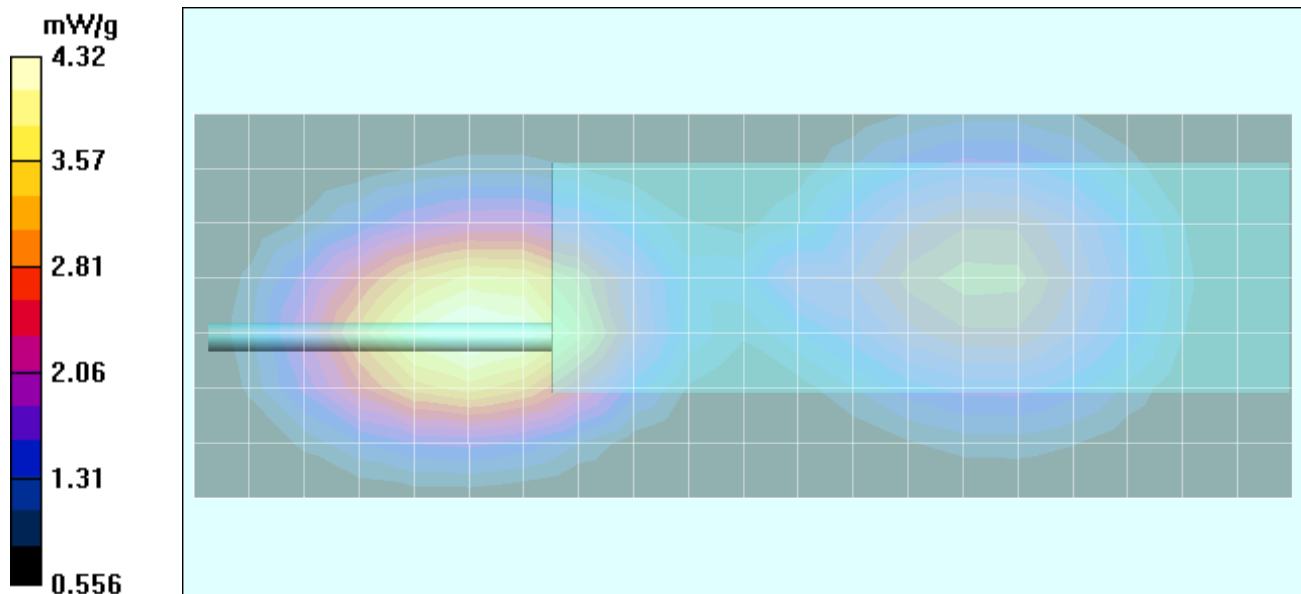
Measurement grid: dx=15mm, dy=15mm

Body-Worn - 1.3 cm Belt-Clip Separation Distance - Mid Channel/Zoom Scan (5x5x7)/Cube 0:

Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
 Reference Value = 62.9 V/m; Power Drift = -0.193 dB
 Peak SAR (extrapolated) = 5.32 W/kg
SAR(1 g) = 4.07 mW/g; SAR(10 g) = 2.92 mW/g

Body-Worn - 1.3 cm Belt-Clip Separation Distance - Mid Channel/Zoom Scan (5x5x7)/Cube 1:

Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
 Reference Value = 62.9 V/m; Power Drift = -0.202 dB
 Peak SAR (extrapolated) = 3.86 W/kg
SAR(1 g) = 3.11 mW/g; SAR(10 g) = 2.34 mW/g



Body-Worn SAR - NiMH Battery - Stubby Antenna (P/N: 501-0105-012)

Date Tested: 05/29/04

DUT: EF Johnson Model: 242-5172; Type: Portable FM PTT Radio Transceiver; Serial: 51720A000A 00001

Body-Worn Accessories: Belt-Clip (P/N: 585-5100-128), Boom-Microphone Headset (P/N: 589-0015-059)

Ambient Temp: 22.2 °C; Fluid Temp: 20.7 °C; Barometric Pressure: 101.9 kPa; Humidity: 40%

Communication System: FM Transmit

RF Output Power: 35.10 dBm (Conducted)

RF Output Power: 35.15 dBm (Conducted) - 2nd Maximum

RF Output Power: 35.11 dBm (Conducted) - 3rd Maximum

Frequency: 814.5125 MHz; Duty Cycle: 1:1

7.5V 3600mAh NiMH Battery Pack (P/N: 587-5100-360)

Medium: M815 ($\sigma = 0.98$ mho/m; $\epsilon_r = 54.0$; $\rho = 1000$ kg/m³)

- Probe: ET3DV6 - SN1387; ConvF(6.24, 6.24, 6.24); Calibrated: 18/03/2004

- Sensor-Surface: 4mm (Mechanical Surface Detection)

- Electronics: DAE3 Sn353; Calibrated: 19/12/2003

- Phantom: Planar; Type: Plexiglas; Serial: 161

- Measurement SW: DASY4, V4.2 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 112

Body-Worn - 1.3 cm Belt-Clip Separation Distance - Mid Channel/Area Scan (8x19x1):

Measurement grid: dx=15mm, dy=15mm

Body-Worn - 1.3 cm Belt-Clip Separation Distance - Mid Channel/Zoom Scan (5x5x7)/Cube 0:

Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 71.6 V/m; Power Drift = -0.525 dB

Peak SAR (extrapolated) = 9.95 W/kg

SAR(1 g) = 5.48 mW/g; SAR(10 g) = 3.65 mW/g

Body-Worn - 1.3 cm Belt-Clip Separation Distance - Mid Channel/Zoom Scan (5x5x7)/Cube 1:

Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 71.6 V/m; Power Drift = -0.617 dB

Peak SAR (extrapolated) = 7.76 W/kg

SAR(1 g) = 5.86 mW/g; SAR(10 g) = 4.17 mW/g

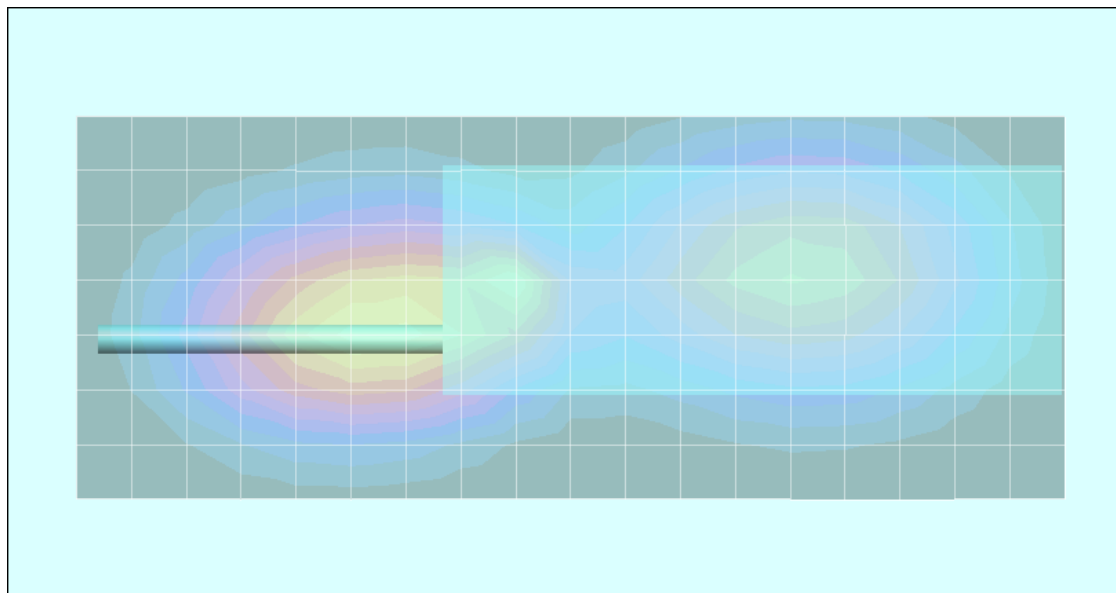
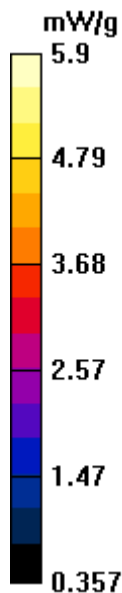
Body-Worn - 1.3 cm Belt-Clip Separation Distance - Mid Channel/Zoom Scan (5x5x7)/Cube 2:

Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

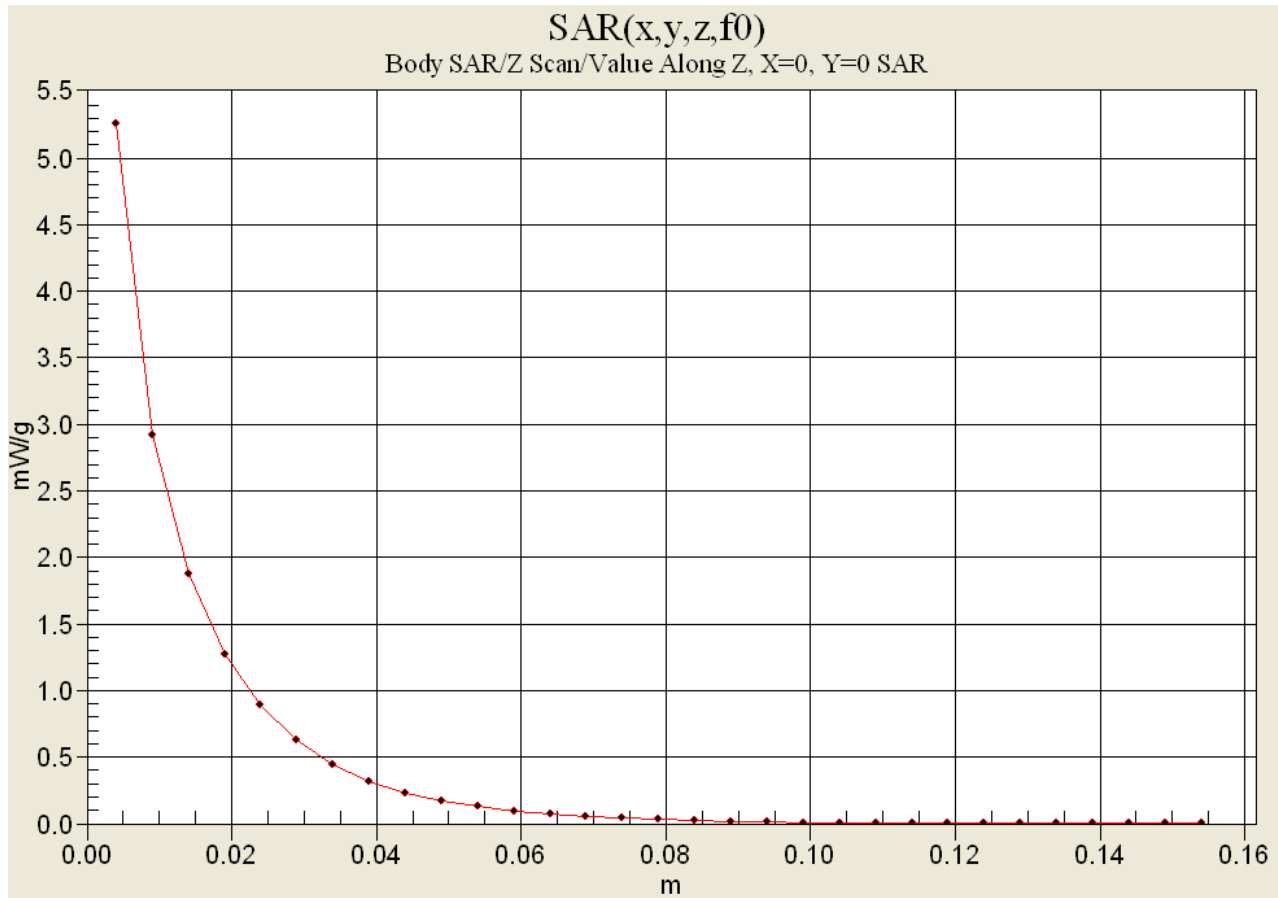
Reference Value = 71.6 V/m; Power Drift = -0.486 dB

Peak SAR (extrapolated) = 5.31 W/kg

SAR(1 g) = 4.26 mW/g; SAR(10 g) = 3.18 mW/g



Z-Axis Scan



Body-Worn SAR - Alkaline Battery Pack (Duracell Procell) - Stubby Antenna (P/N: 501-0105-012)

Date Tested: 05/29/04

DUT: EF Johnson Model: 242-5172; Type: Portable FM PTT Radio Transceiver; Serial: 51720A000A 00001

Body-Worn Accessories: Belt-Clip (P/N: 585-5100-128), Boom-Microphone Headset (P/N: 589-0015-059)

Ambient Temp: 22.2 °C; Fluid Temp: 20.7 °C; Barometric Pressure: 101.9 kPa; Humidity: 40%

Communication System: FM Transmit

RF Output Power: 35.20 dBm (Conducted)

Frequency: 814.5125 MHz; Duty Cycle: 1:1

9V AA Alkaline Duracell ProCell Battery Pack (Battery Case P/N: 250-5100-280)

Medium: M815 ($\sigma = 0.98$ mho/m; $\epsilon_r = 54.0$; $\rho = 1000$ kg/m³)

- Probe: ET3DV6 - SN1387; ConvF(6.24, 6.24, 6.24); Calibrated: 18/03/2004
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn353; Calibrated: 19/12/2003
- Phantom: Planar; Type: Plexiglas; Serial: 161
- Measurement SW: DASY4, V4.2 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 112

Body-Worn - 1.3 cm Belt-Clip Separation Distance - Mid Channel/Area Scan (8x21x1):

Measurement grid: dx=15mm, dy=15mm

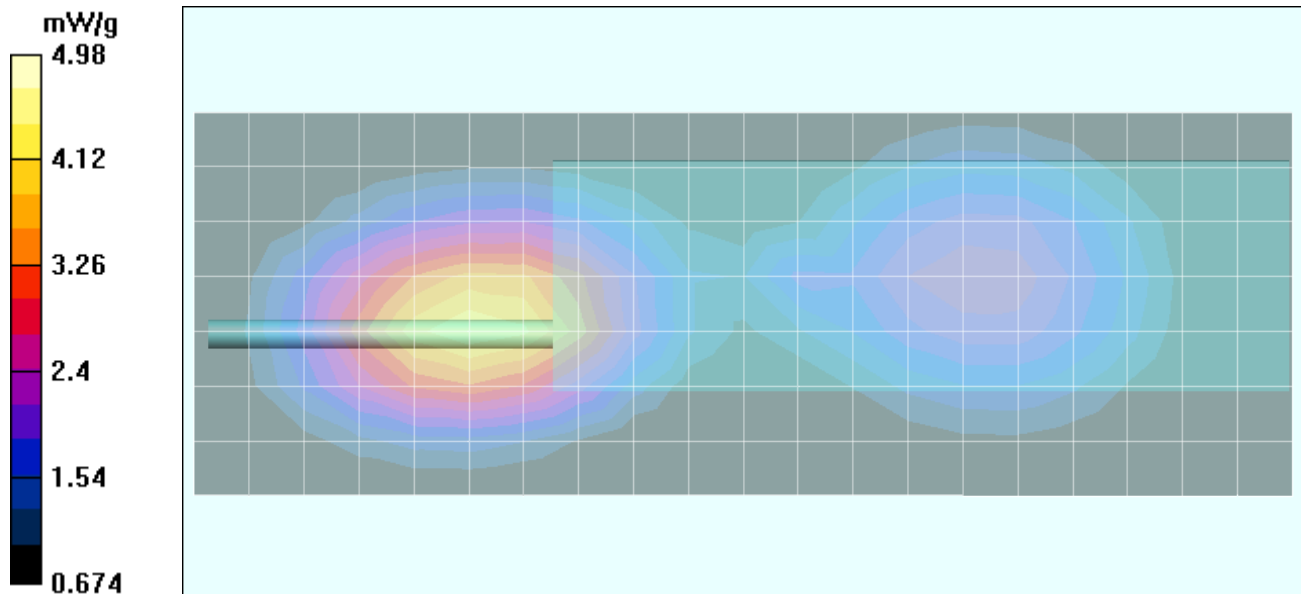
Body-Worn - 1.3 cm Belt-Clip Separation Distance - Mid Channel/Zoom Scan (5x5x7)/Cube 0:

Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 66.5 V/m; Power Drift = -0.614 dB

Peak SAR (extrapolated) = 6.19 W/kg

SAR(1 g) = 4.70 mW/g; SAR(10 g) = 3.37 mW/g



Body-Worn SAR - NiMH Battery - Stubby Antenna (P/N: 501-0105-012)

Date Tested: 05/29/04

DUT: EF Johnson Model: 242-5172; Type: Portable FM PTT Radio Transceiver; Serial: 51720A000A 00001

Body-Worn Accessories: Belt-Clip (P/N: 585-5100-128), Boom-Microphone Headset (P/N: 589-0015-059)

Ambient Temp: 22.2 °C; Fluid Temp: 20.7 °C; Barometric Pressure: 101.9 kPa; Humidity: 40%

Communication System: FM Transmit Talk-Around
 RF Output Power: 35.24 dBm (Conducted)
 RF Output Power: 35.20 dBm (Conducted) - 2nd Maximum
 Frequency: 859.5125 MHz; Duty Cycle: 1:1
 7.5V 3600mAh NiMH Battery Pack (P/N: 587-5100-360)
 Medium: M860 ($\sigma = 1.02$ mho/m; $\epsilon_r = 53.5$; $\rho = 1000$ kg/m³)

- Probe: ET3DV6 - SN1387; ConvF(6.24, 6.24, 6.24); Calibrated: 18/03/2004
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn353; Calibrated: 19/12/2003
- Phantom: Planar; Type: Plexiglas; Serial: 161
- Measurement SW: DASY4, V4.2 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 112

Body-Worn - 1.3 cm Belt-Clip Separation Distance - Mid Channel/Area Scan (8x19x1):

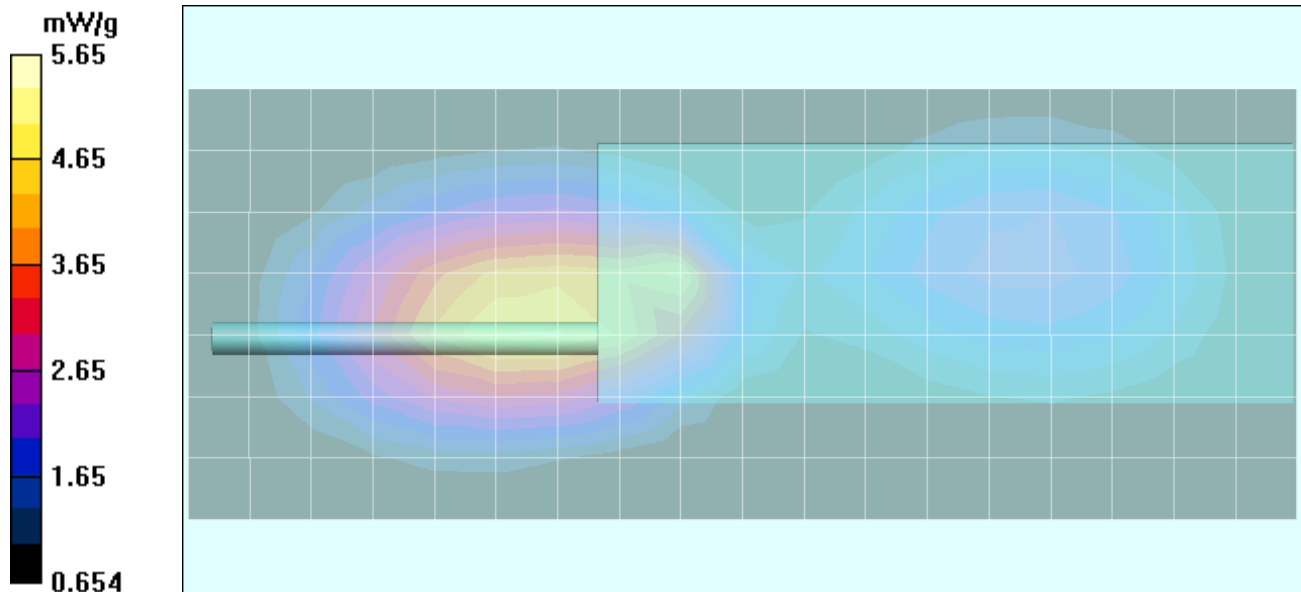
Measurement grid: dx=15mm, dy=15mm

Body-Worn - 1.3 cm Belt-Clip Separation Distance - Mid Channel/Zoom Scan 2 (5x5x7)/Cube 0:

Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
 Reference Value = 73.6 V/m; Power Drift = -0.605 dB
 Peak SAR (extrapolated) = 7.64 W/kg
SAR(1 g) = 5.32 mW/g; SAR(10 g) = 3.5 mW/g

Body-Worn - 1.3 cm Belt-Clip Separation Distance - Mid Channel/Zoom Scan (5x5x7)/Cube 1:

Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
 Reference Value = 72.8 V/m; Power Drift = -0.767 dB
 Peak SAR (extrapolated) = 7.15 W/kg
SAR(1 g) = 5.38 mW/g; SAR(10 g) = 3.81 mW/g



Body-Worn SAR - Alkaline Battery Pack (Duracell Procell) - Stubby Antenna (P/N: 501-0105-012)

Date Tested: 05/29/04

DUT: EF Johnson Model: 242-5172; Type: Portable FM PTT Radio Transceiver; Serial: 51720A000A 00001

Body-Worn Accessories: Belt-Clip (P/N: 585-5100-128), Boom-Microphone Headset (P/N: 589-0015-059)

Ambient Temp: 22.2 °C; Fluid Temp: 20.7 °C; Barometric Pressure: 101.9 kPa; Humidity: 40%

Communication System: FM Transmit Talk-Around
 RF Output Power: 35.18 dBm (Conducted)
 Frequency: 859.5125 MHz; Duty Cycle: 1:1
 9V AA Alkaline Duracell ProCell Battery Pack (Battery Case P/N: 250-5100-280)
 Medium: M860 ($\sigma = 1.02$ mho/m; $\epsilon_r = 53.5$; $\rho = 1000$ kg/m³)

- Probe: ET3DV6 - SN1387; ConvF(6.24, 6.24, 6.24); Calibrated: 18/03/2004
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn353; Calibrated: 19/12/2003
- Phantom: Planar; Type: Plexiglas; Serial: 161
- Measurement SW: DASY4, V4.2 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 112

Body-Worn - 1.3 cm Belt-Clip Separation Distance - Mid Channel/Area Scan (8x21x1):

Measurement grid: dx=15mm, dy=15mm

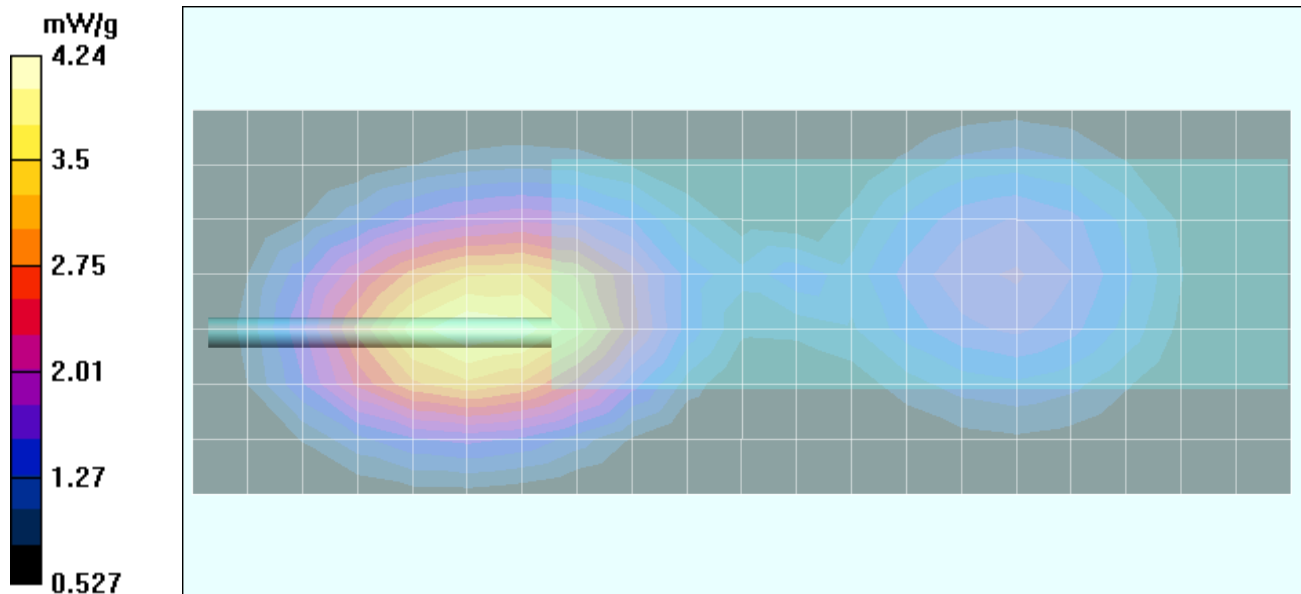
Body-Worn - 1.3 cm Belt-Clip Separation Distance - Mid Channel/Zoom Scan (5x5x7)/Cube 0:

Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 65.8 V/m; Power Drift = -1.01 dB

Peak SAR (extrapolated) = 5.31 W/kg

SAR(1 g) = 3.99 mW/g; SAR(10 g) = 2.83 mW/g



Body-Worn SAR - NiMH Battery - Whip Antenna (P/N: 501-0105-013)

Date Tested: 06/10/04

DUT: EF Johnson Model: 242-5172; Type: Portable FM PTT Radio Transceiver; Serial: 51720A000A 00001

Body-Worn Accessories: Belt-Clip (P/N: 585-5100-128), Speaker-Microphone (P/N: 589-0015-057)

Ambient Temp: 24.0 °C; Fluid Temp: 23.0 °C; Barometric Pressure: 101.7 kPa; Humidity: 43%

Communication System: FM Transmit Talk-Around
RF Output Power: 34.83 dBm (Conducted)
Frequency: 769.0125 MHz; Duty Cycle: 1:1
7.5V 3600mAh NiMH Battery Pack (P/N: 587-5100-360)
Medium: M769 ($\sigma = 0.95$ mho/m; $\epsilon_r = 55.3$; $\rho = 1000$ kg/m³)

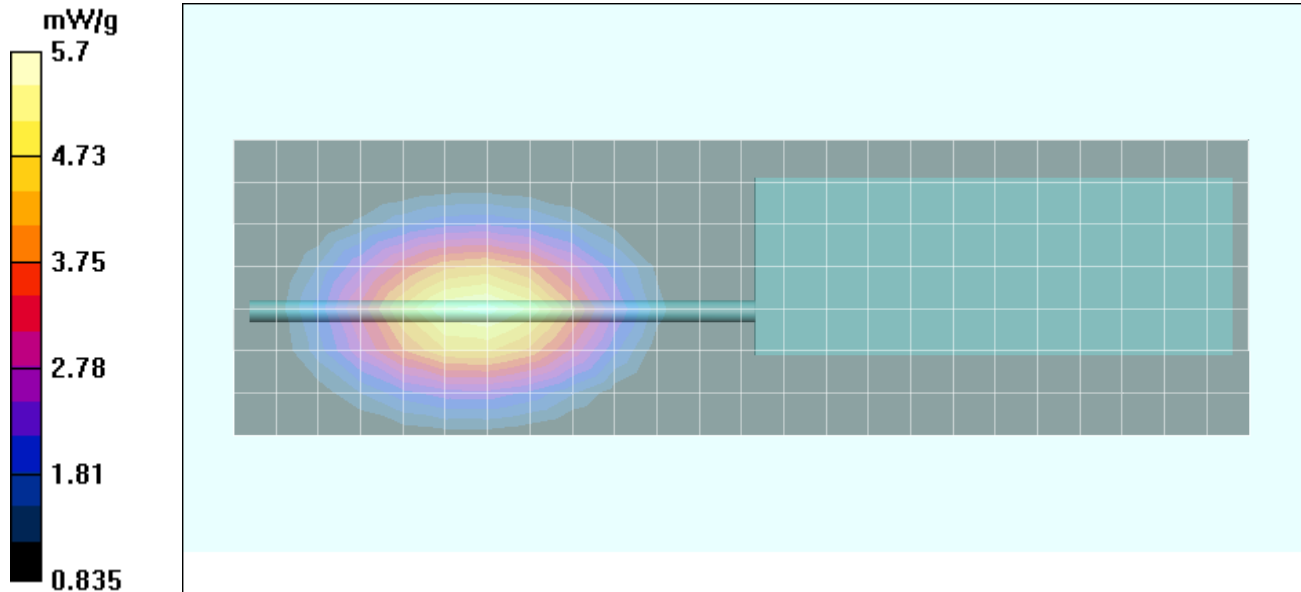
- Probe: ET3DV6 - SN1387; ConvF(6.24, 6.24, 6.24); Calibrated: 18/03/2004
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn353; Calibrated: 19/12/2003
- Phantom: Planar; Type: Plexiglas; Serial: 161
- Measurement SW: DASY4, V4.2 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 112

Body-Worn - 1.3 cm Belt-Clip Separation Distance - Mid Channel/Area Scan (8x25x1):

Measurement grid: dx=15mm, dy=15mm

Body-Worn - 1.3 cm Belt-Clip Separation Distance - Mid Channel/Zoom Scan (5x5x7)/Cube 0:

Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 18.4 V/m; Power Drift = -0.505 dB
Peak SAR (extrapolated) = 7.05 W/kg
SAR(1 g) = 5.40 mW/g; SAR(10 g) = 3.94 mW/g



Body-Worn SAR - Alkaline Battery Pack (Duracell Procell) - Whip Antenna (P/N: 501-0105-013)

Date Tested: 06/10/04

DUT: EF Johnson Model: 242-5172; Type: Portable FM PTT Radio Transceiver; Serial: 51720A000A 00001

Body-Worn Accessories: Belt-Clip (P/N: 585-5100-128), Speaker-Microphone (P/N: 589-0015-057)

Ambient Temp: 24.0 °C; Fluid Temp: 23.0 °C; Barometric Pressure: 101.7 kPa; Humidity: 43%

Communication System: FM Transmit Talk-Around
 RF Output Power: 34.86 dBm (Conducted)
 Frequency: 769.0125 MHz; Duty Cycle: 1:1
 9V AA Alkaline Duracell ProCell Battery Pack (Battery Case P/N: 250-5100-280)
 Medium: M769 ($\sigma = 0.95$ mho/m; $\epsilon_r = 55.3$; $\rho = 1000$ kg/m³)

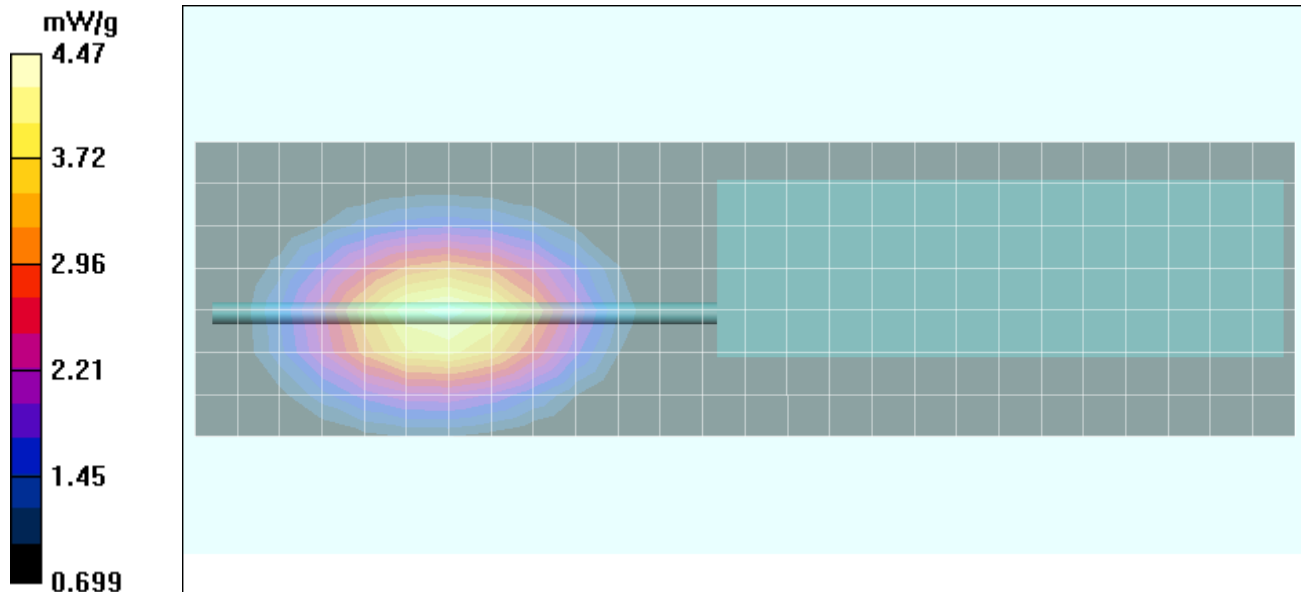
- Probe: ET3DV6 - SN1387; ConvF(6.24, 6.24, 6.24); Calibrated: 18/03/2004
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn353; Calibrated: 19/12/2003
- Phantom: Planar; Type: Plexiglas; Serial: 161
- Measurement SW: DASY4, V4.2 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 112

Body-Worn - 1.3 cm Belt-Clip Separation Distance - Mid Channel/Area Scan (8x27x1):

Measurement grid: dx=15mm, dy=15mm

Body-Worn - 1.3 cm Belt-Clip Separation Distance - Mid Channel/Zoom Scan (5x5x7)/Cube 0:

Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
 Reference Value = 16.7 V/m; Power Drift = -0.322 dB
 Peak SAR (extrapolated) = 5.48 W/kg
SAR(1 g) = 4.24 mW/g; SAR(10 g) = 3.11 mW/g



Body-Worn SAR - NiMH Battery - Whip Antenna (P/N: 501-0105-013)

Date Tested: 06/10/04

DUT: EF Johnson Model: 242-5172; Type: Portable FM PTT Radio Transceiver; Serial: 51720A000A 00001

Body-Worn Accessories: Belt-Clip (P/N: 585-5100-128), Speaker-Microphone (P/N: 589-0015-057)

Ambient Temp: 24.0 °C; Fluid Temp: 23.0 °C; Barometric Pressure: 101.7 kPa; Humidity: 43%

Communication System: FM Transmit
RF Output Power: 34.83 dBm (Conducted)
Frequency: 799.0125 MHz; Duty Cycle: 1:1
7.5V 3600mAh NiMH Battery Pack (P/N: 587-5100-360)
Medium: M799 ($\sigma = 0.98$ mho/m; $\epsilon_r = 55.0$; $\rho = 1000$ kg/m³)

- Probe: ET3DV6 - SN1387; ConvF(6.24, 6.24, 6.24); Calibrated: 18/03/2004
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn353; Calibrated: 19/12/2003
- Phantom: Planar; Type: Plexiglas; Serial: 161
- Measurement SW: DASY4, V4.2 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 112

Body-Worn - 1.3 cm Belt-Clip Separation Distance - Mid Channel/Area Scan (8x25x1):

Measurement grid: dx=15mm, dy=15mm

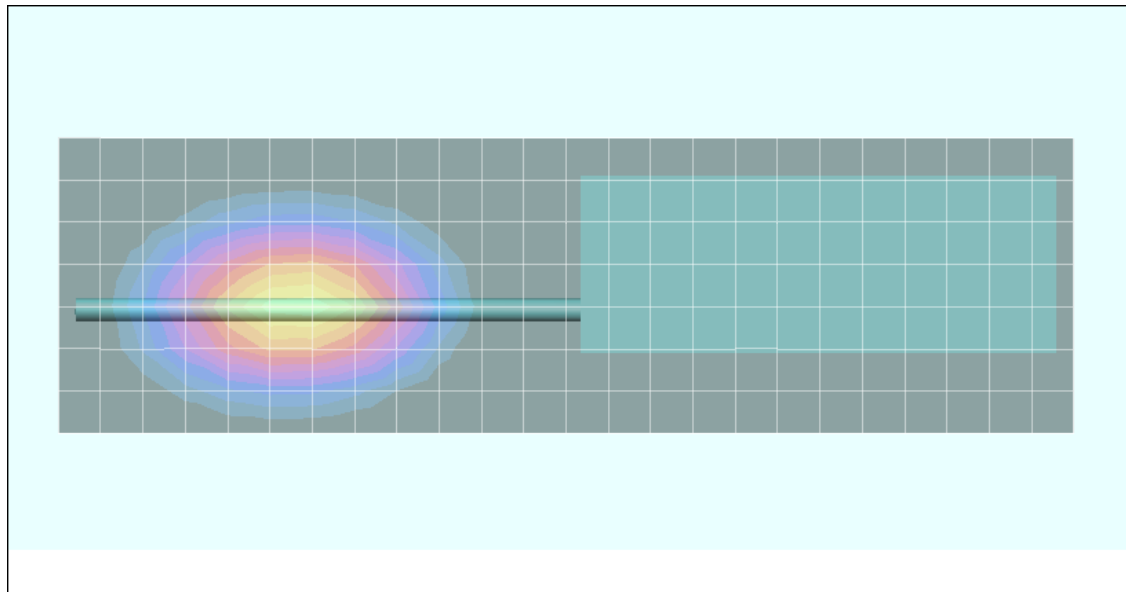
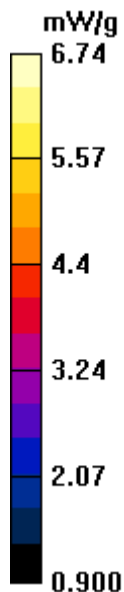
Body-Worn - 1.3 cm Belt-Clip Separation Distance - Mid Channel/Zoom Scan (5x5x7)/Cube 0:

Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 15 V/m; Power Drift = -0.552 dB

Peak SAR (extrapolated) = 8.37 W/kg

SAR(1 g) = 6.34 mW/g; SAR(10 g) = 4.55 mW/g



Body-Worn SAR - Alkaline Battery Pack (Duracell Procell) - Whip Antenna (P/N: 501-0105-013)

Date Tested: 06/10/04

DUT: EF Johnson Model: 242-5172; Type: Portable FM PTT Radio Transceiver; Serial: 51720A000A 00001

Body-Worn Accessories: Belt-Clip (P/N: 585-5100-128), Speaker-Microphone (P/N: 589-0015-057)

Ambient Temp: 24.0 °C; Fluid Temp: 23.0 °C; Barometric Pressure: 101.7 kPa; Humidity: 43%

Communication System: FM Transmit
 RF Output Power: 34.83 dBm (Conducted)
 Frequency: 799.0125 MHz; Duty Cycle: 1:1
 9V AA Alkaline Duracell ProCell Battery Pack (Battery Case P/N: 250-5100-280)
 Medium: M799 ($\sigma = 0.98$ mho/m; $\epsilon_r = 55.0$; $\rho = 1000$ kg/m³)

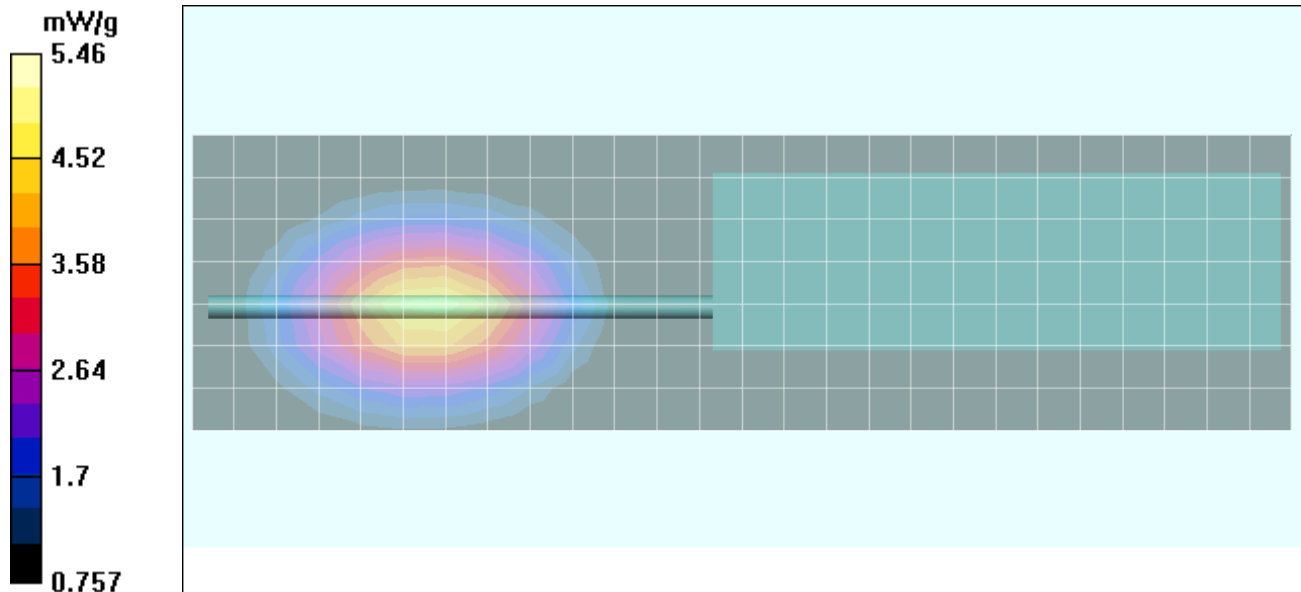
- Probe: ET3DV6 - SN1387; ConvF(6.24, 6.24, 6.24); Calibrated: 18/03/2004
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn353; Calibrated: 19/12/2003
- Phantom: Planar; Type: Plexiglas; Serial: 161
- Measurement SW: DASY4, V4.2 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 112

Body-Worn - 1.3 cm Belt-Clip Separation Distance - Mid Channel/Area Scan (8x27x1):

Measurement grid: dx=15mm, dy=15mm

Body-Worn - 1.3 cm Belt-Clip Separation Distance - Mid Channel/Zoom Scan (5x5x7)/Cube 0:

Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
 Reference Value = 14.1 V/m; Power Drift = -0.762 dB
 Peak SAR (extrapolated) = 6.76 W/kg
SAR(1 g) = 5.16 mW/g; SAR(10 g) = 3.76 mW/g



Body-Worn SAR - NiMH Battery - Whip Antenna (P/N: 501-0105-013)

Date Tested: 06/10/04

DUT: EF Johnson Model: 242-5172; Type: Portable FM PTT Radio Transceiver; Serial: 51720A000A 00001

Body-Worn Accessories: Belt-Clip (P/N: 585-5100-128), Speaker-Microphone (P/N: 589-0015-057)

Ambient Temp: 24.0 °C; Fluid Temp: 23.0 °C; Barometric Pressure: 101.7 kPa; Humidity: 43%

Communication System: FM Transmit
RF Output Power: 35.21 dBm (Conducted)
Frequency: 814.5125 MHz; Duty Cycle: 1:1
7.5V 3600mAh NiMH Battery Pack (P/N: 587-5100-360)
Medium: M815 ($\sigma = 0.98$ mho/m; $\epsilon_r = 54.3$; $\rho = 1000$ kg/m³)

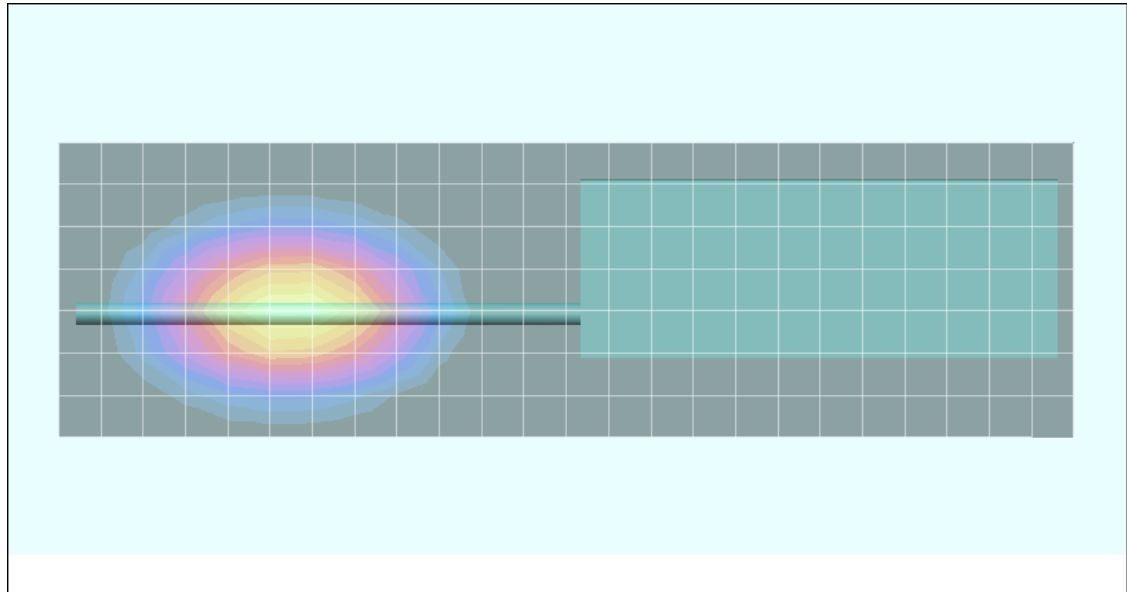
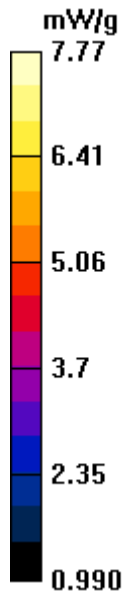
- Probe: ET3DV6 - SN1387; ConvF(6.24, 6.24, 6.24); Calibrated: 18/03/2004
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn353; Calibrated: 19/12/2003
- Phantom: Planar; Type: Plexiglas; Serial: 161
- Measurement SW: DASY4, V4.2 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 112

Body-Worn - 1.3 cm Belt-Clip Separation Distance - Mid Channel/Area Scan (8x25x1):

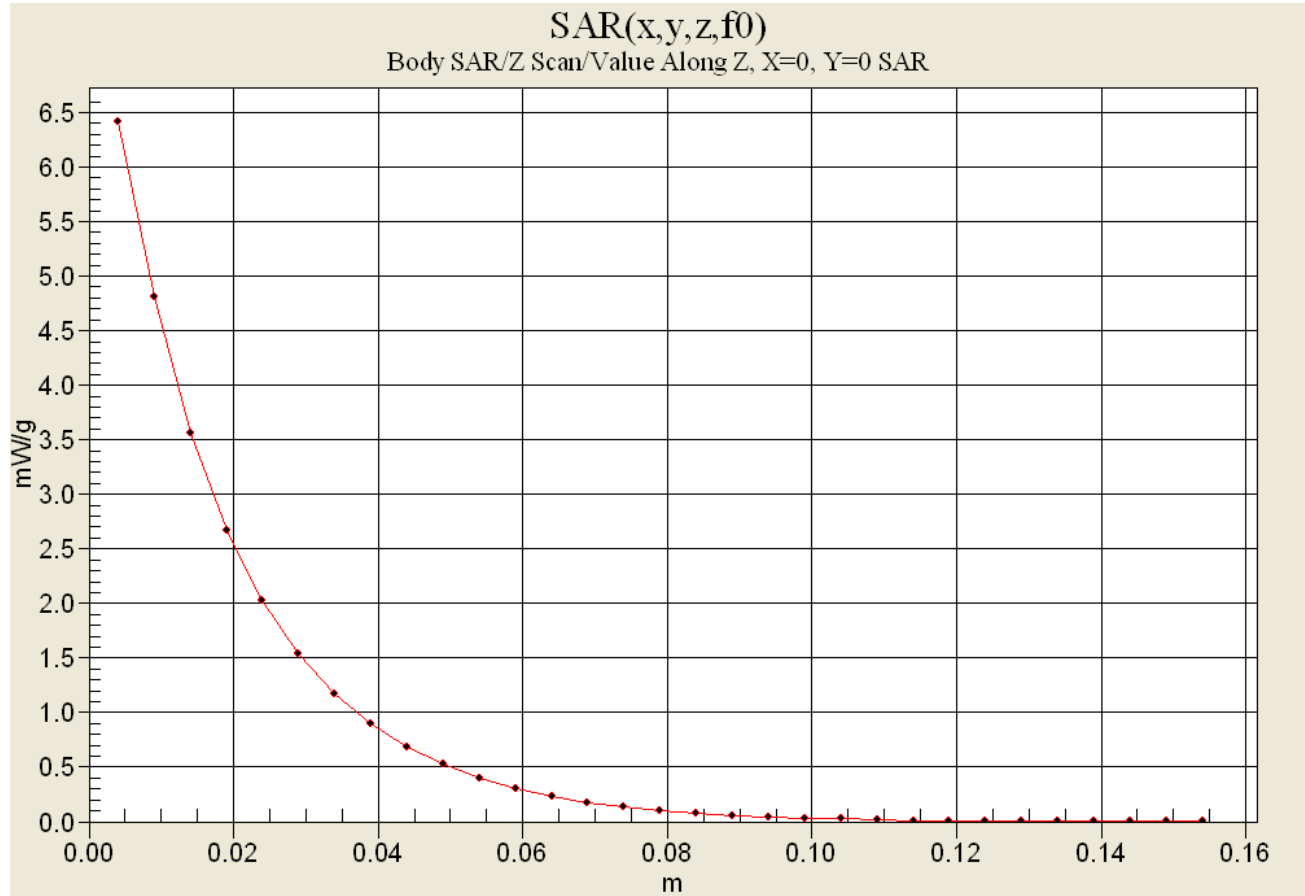
Measurement grid: dx=15mm, dy=15mm

Body-Worn - 1.3 cm Belt-Clip Separation Distance - Mid Channel/Zoom Scan (5x5x7)/Cube 0:

Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 15.3 V/m; Power Drift = -0.746 dB
Peak SAR (extrapolated) = 9.67 W/kg
SAR(1 g) = 7.41 mW/g; SAR(10 g) = 5.37 mW/g



Z-Axis Scan



Body-Worn SAR - Alkaline Battery Pack (Duracell Procell) - Whip Antenna (P/N: 501-0105-013)

Date Tested: 06/10/04

DUT: EF Johnson Model: 242-5172; Type: Portable FM PTT Radio Transceiver; Serial: 51720A000A 00001

Body-Worn Accessories: Belt-Clip (P/N: 585-5100-128), Speaker-Microphone (P/N: 589-0015-057)

Ambient Temp: 24.0 °C; Fluid Temp: 23.0 °C; Barometric Pressure: 101.7 kPa; Humidity: 43%

Communication System: FM Transmit

RF Output Power: 35.23 dBm (Conducted)

Frequency: 814.5125 MHz; Duty Cycle: 1:1

9V AA Alkaline Duracell ProCell Battery Pack (Battery Case P/N: 250-5100-280)

Medium: M815 ($\sigma = 0.98$ mho/m; $\epsilon_r = 54.3$; $\rho = 1000$ kg/m³)

- Probe: ET3DV6 - SN1387; ConvF(6.24, 6.24, 6.24); Calibrated: 18/03/2004
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn353; Calibrated: 19/12/2003
- Phantom: Planar; Type: Plexiglas; Serial: 161
- Measurement SW: DASY4, V4.2 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 112

Body-Worn - 1.3 cm Belt-Clip Separation Distance - Mid Channel/Area Scan (8x27x1):

Measurement grid: dx=15mm, dy=15mm

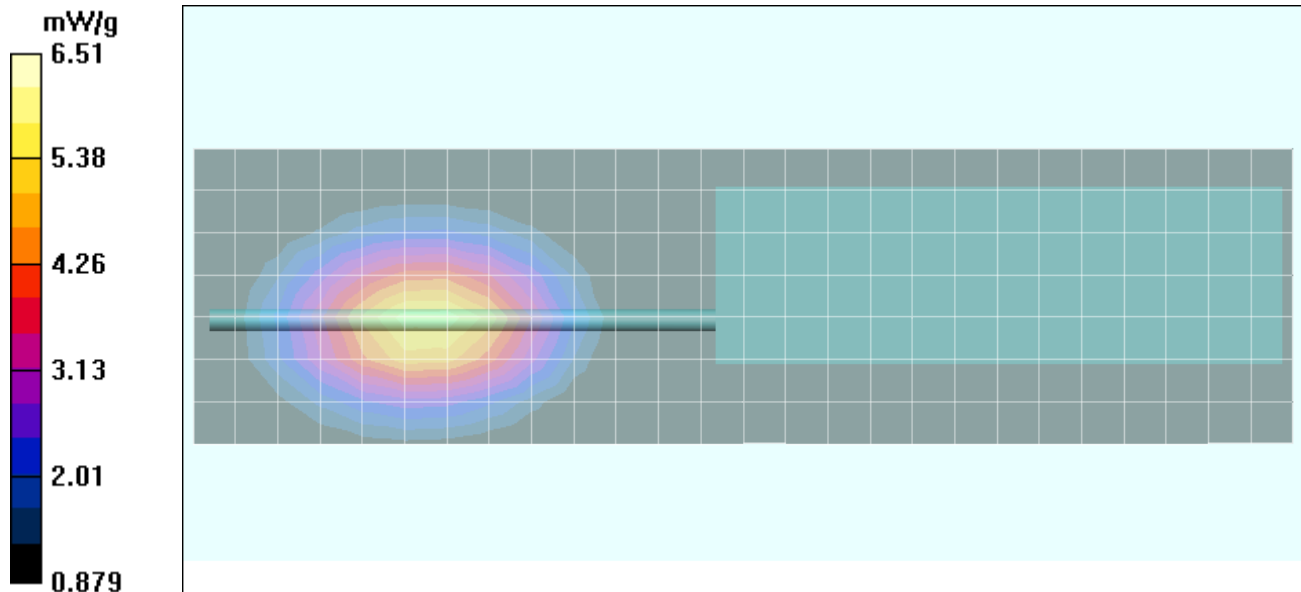
Body-Worn - 1.3 cm Belt-Clip Separation Distance - Mid Channel/Zoom Scan (5x5x7)/Cube 0:

Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 12.6 V/m; Power Drift = -0.972 dB

Peak SAR (extrapolated) = 8.11 W/kg

SAR(1 g) = 6.22 mW/g; SAR(10 g) = 4.52 mW/g



Body-Worn SAR - NiMH Battery - Whip Antenna (P/N: 501-0105-013)

Date Tested: 06/10/04

DUT: EF Johnson Model: 242-5172; Type: Portable FM PTT Radio Transceiver; Serial: 51720A000A 00001

Body-Worn Accessories: Belt-Clip (P/N: 585-5100-128), Speaker-Microphone (P/N: 589-0015-057)

Ambient Temp: 24.0 °C; Fluid Temp: 23.0 °C; Barometric Pressure: 101.7 kPa; Humidity: 43%

Communication System: FM Transmit Talk-Around
RF Output Power: 35.13 dBm (Conducted)
Frequency: 859.5125 MHz; Duty Cycle: 1:1
7.5V 3600mAh NiMH Battery Pack (P/N: 587-5100-360)
Medium: M860 ($\sigma = 1.03$ mho/m; $\epsilon_r = 53.7$; $\rho = 1000$ kg/m³)

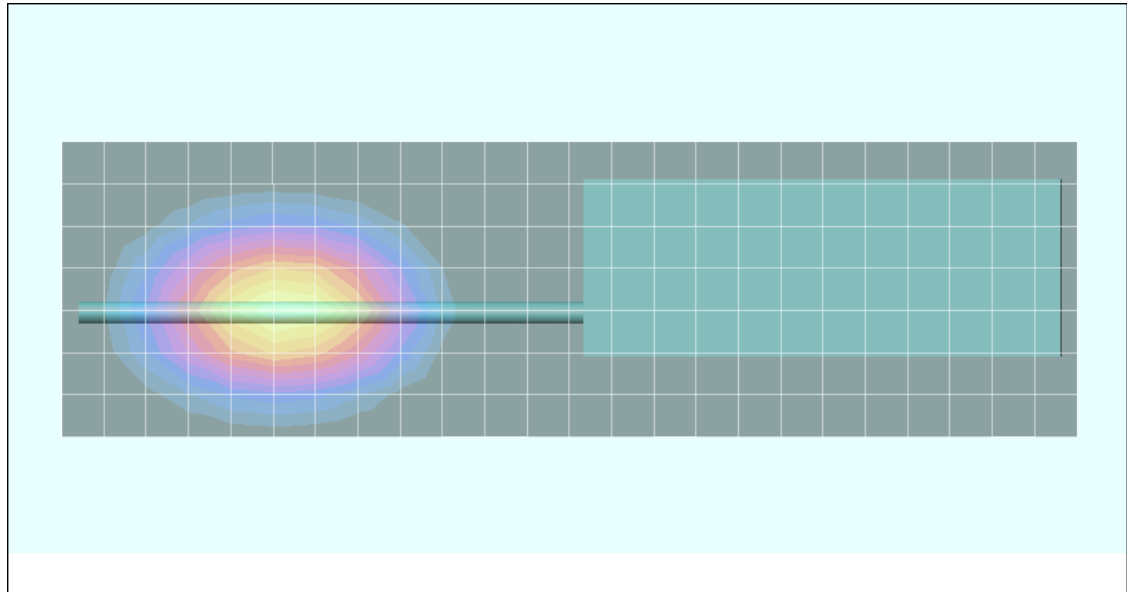
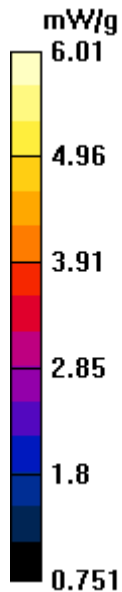
- Probe: ET3DV6 - SN1387; ConvF(6.24, 6.24, 6.24); Calibrated: 18/03/2004
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn353; Calibrated: 19/12/2003
- Phantom: Planar; Type: Plexiglas; Serial: 161
- Measurement SW: DASY4, V4.2 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 112

Body-Worn - 1.3 cm Belt-Clip Separation Distance - Mid Channel/Area Scan (8x25x1):

Measurement grid: dx=15mm, dy=15mm

Body-Worn - 1.3 cm Belt-Clip Separation Distance - Mid Channel/Zoom Scan (5x5x7)/Cube 0:

Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 18 V/m; Power Drift = -0.108 dB
Peak SAR (extrapolated) = 7.42 W/kg
SAR(1 g) = 5.63 mW/g; SAR(10 g) = 4 mW/g



Body-Worn SAR - Alkaline Battery Pack (Duracell Procell) - Whip Antenna (P/N: 501-0105-013)

Date Tested: 06/10/04

DUT: EF Johnson Model: 242-5172; Type: Portable FM PTT Radio Transceiver; Serial: 51720A000A 00001

Body-Worn Accessories: Belt-Clip (P/N: 585-5100-128), Speaker-Microphone (P/N: 589-0015-057)

Ambient Temp: 24.0 °C; Fluid Temp: 23.0 °C; Barometric Pressure: 101.7 kPa; Humidity: 43%

Communication System: FM Transmit Talk-Around
 RF Output Power: 35.25 dBm (Conducted)
 Frequency: 859.5125 MHz; Duty Cycle: 1:1
 9V AA Alkaline Duracell ProCell Battery Pack (Battery Case P/N: 250-5100-280)
 Medium: M860 ($\sigma = 1.03 \text{ mho/m}$; $\epsilon_r = 53.7$; $\rho = 1000 \text{ kg/m}^3$)

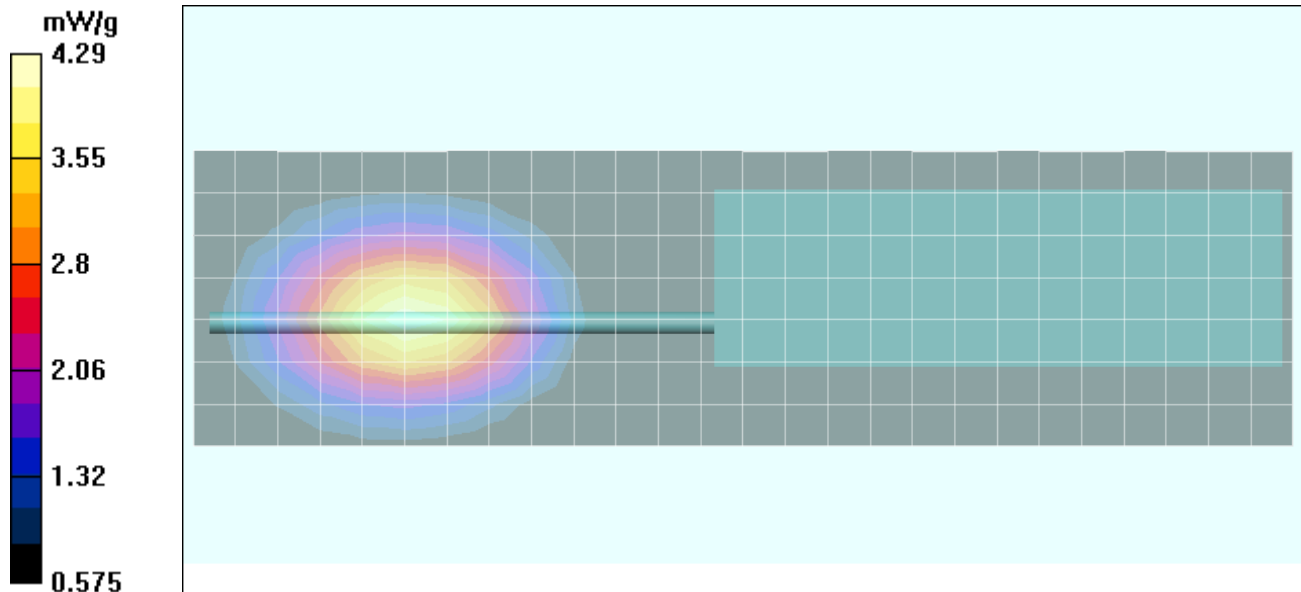
- Probe: ET3DV6 - SN1387; ConvF(6.24, 6.24, 6.24); Calibrated: 18/03/2004
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn353; Calibrated: 19/12/2003
- Phantom: Planar; Type: Plexiglas; Serial: 161
- Measurement SW: DASY4, V4.2 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 112

Body-Worn - 1.3 cm Belt-Clip Separation Distance - Mid Channel/Area Scan (8x27x1):

Measurement grid: dx=15mm, dy=15mm

Body-Worn - 1.3 cm Belt-Clip Separation Distance - Mid Channel/Zoom Scan (5x5x7)/Cube 0:

Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
 Reference Value = 14.2 V/m; Power Drift = 0.0166 dB
 Peak SAR (extrapolated) = 5.26 W/kg
SAR(1 g) = 4.02 mW/g; SAR(10 g) = 2.89 mW/g



Body-Worn SAR - NiMH Battery - Stubby Antenna (P/N: 501-0105-012)

Date Tested: 06/11/04

DUT: EF Johnson Model: 242-5172; Type: Portable FM PTT Radio Transceiver; Serial: 51720A000A 00001
Body-Worn Accessories: Belt-Clip (P/N: 585-5100-128), Speaker-Microphone (P/N: 589-0015-057)

Ambient Temp: 22.7 °C; Fluid Temp: 21.2 °C; Barometric Pressure: 102.3 kPa; Humidity: 41%

Communication System: FM Transmit Talk-Around

RF Output Power: 34.74 MHz (Conducted)

RF Output Power: 34.80 MHz (Conducted) - 2nd Maximum

RF Output Power: 34.77 MHz (Conducted) - 3rd Maximum

Frequency: 769.0125 MHz; Duty Cycle: 1:1

7.5V 3600mAh NiMH Battery Pack (P/N: 587-5100-360)

Medium: M769 ($\sigma = 0.93$ mho/m; $\epsilon_r = 54.0$; $\rho = 1000$ kg/m³)

- Probe: ET3DV6 - SN1387; ConvF(6.24, 6.24, 6.24); Calibrated: 18/03/2004

- Sensor-Surface: 4mm (Mechanical Surface Detection)

- Electronics: DAE3 Sn353; Calibrated: 19/12/2003

- Phantom: Planar; Type: Plexiglas; Serial: 161

- Measurement SW: DASY4, V4.2 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 112

Body-Worn - 1.3 cm Belt-Clip Separation Distance - Mid Channel/Area Scan (8x19x1):

Measurement grid: dx=15mm, dy=15mm

Body-Worn - 1.3 cm Belt-Clip Separation Distance - Mid Channel/Zoom Scan (5x5x7)/Cube 0:

Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 69.4 V/m; Power Drift = -0.520 dB

Peak SAR (extrapolated) = 10.1 W/kg

SAR(1 g) = 5.36 mW/g; SAR(10 g) = 3.27 mW/g

Body-Worn - 1.3 cm Belt-Clip Separation Distance - Mid Channel/Zoom Scan (5x5x7)/Cube 1:

Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 69.4 V/m; Power Drift = -0.484 dB

Peak SAR (extrapolated) = 5.99 W/kg

SAR(1 g) = 4.80 mW/g; SAR(10 g) = 3.61 mW/g

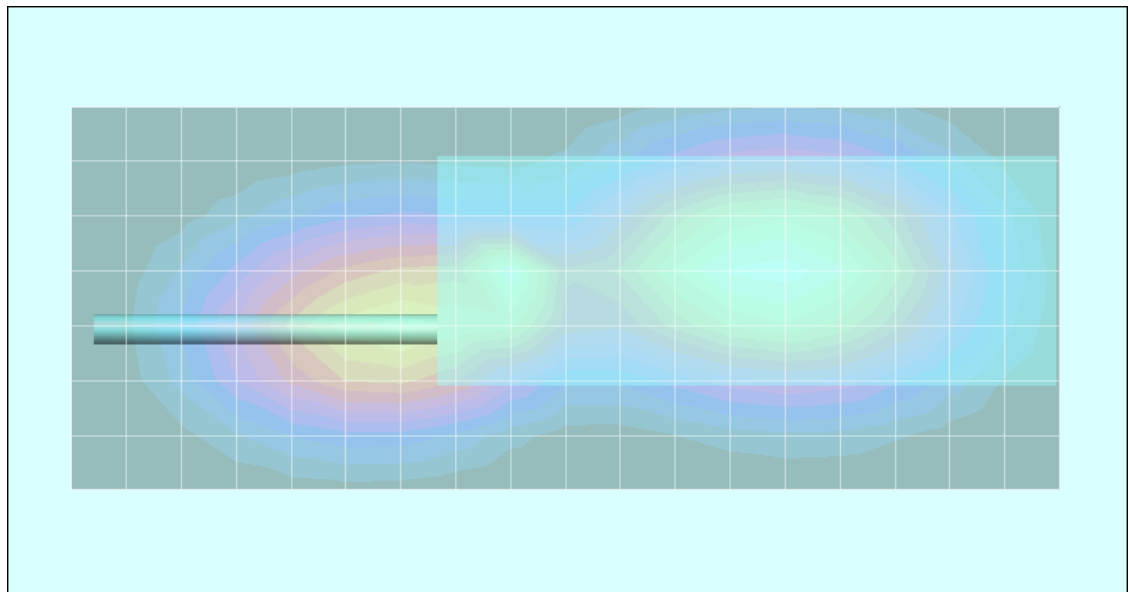
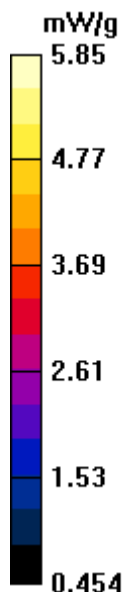
Body-Worn - 1.3 cm Belt-Clip Separation Distance - Mid Channel/Zoom Scan (5x5x7)/Cube 2:

Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 69.4 V/m; Power Drift = -0.479 dB

Peak SAR (extrapolated) = 5.91 W/kg

SAR(1 g) = 4.45 mW/g; SAR(10 g) = 3.19 mW/g



Body-Worn SAR - Alkaline Battery Pack (Duracell Procell) - Stubby Antenna (P/N: 501-0105-012)

Date Tested: 06/11/04

DUT: EF Johnson Model: 242-5172; Type: Portable FM PTT Radio Transceiver; Serial: 51720A000A 00001
Body-Worn Accessories: Belt-Clip (P/N: 585-5100-128), Speaker-Microphone (P/N: 589-0015-057)

Ambient Temp: 22.7 °C; Fluid Temp: 21.2 °C; Barometric Pressure: 102.3 kPa; Humidity: 41%

Communication System: FM Transmit Talk-Around
RF Output Power: 34.76 MHz (Conducted)
RF Output Power: 34.77 MHz (Conducted) - 2nd Maximum
RF Output Power: 34.82 MHz (Conducted) - 3rd Maximum
Frequency: 769.0125 MHz; Duty Cycle: 1:1
9V AA Alkaline Duracell ProCell Battery Pack (Battery Case P/N: 250-5100-280)
Medium: M769 ($\sigma = 0.93$ mho/m; $\epsilon_r = 54.0$; $\rho = 1000$ kg/m³)
- Probe: ET3DV6 - SN1387; ConvF(6.24, 6.24, 6.24); Calibrated: 18/03/2004
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn353; Calibrated: 19/12/2003
- Phantom: Planar; Type: Plexiglas; Serial: 161
- Measurement SW: DASY4, V4.2 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 112

Body-Worn - 1.3 cm Belt-Clip Separation Distance - Mid Channel/Area Scan (8x21x1):

Measurement grid: dx=15mm, dy=15mm

Body-Worn - 1.3 cm Belt-Clip Separation Distance - Mid Channel/Zoom Scan (5x5x7)/Cube 0:

Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 53.6 V/m; Power Drift = -0.555 dB
Peak SAR (extrapolated) = 4.64 W/kg

SAR(1 g) = 3.57 mW/g; SAR(10 g) = 2.61 mW/g

Body-Worn - 1.3 cm Belt-Clip Separation Distance - Mid Channel/Zoom Scan (5x5x7)/Cube 1:

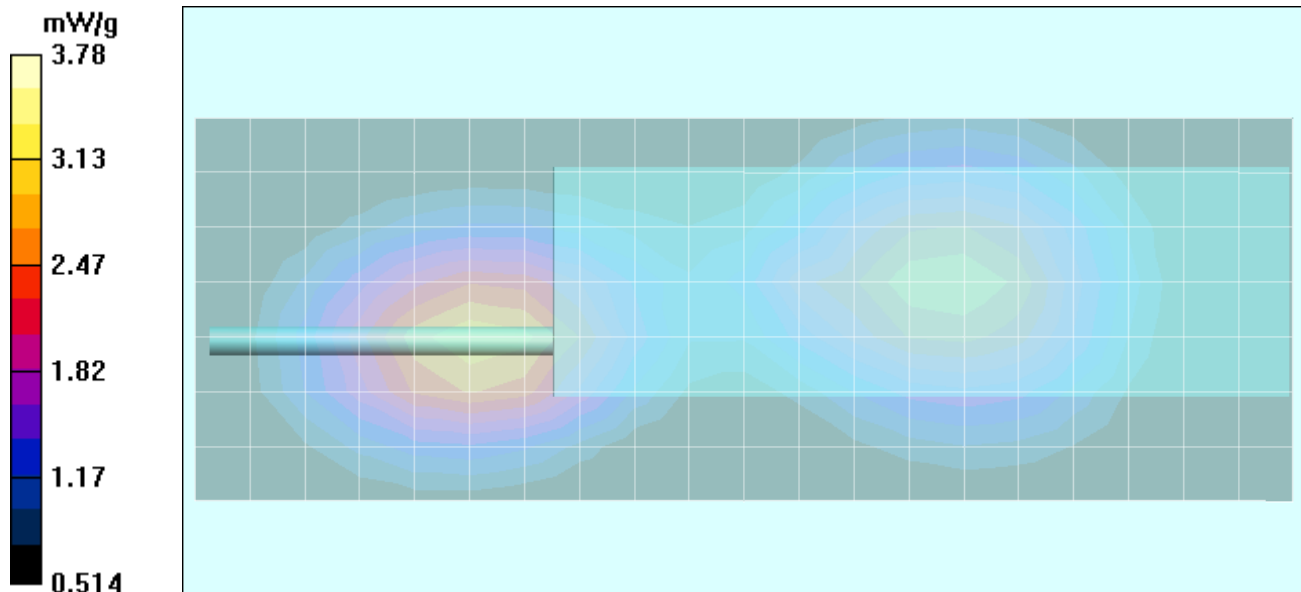
Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 53.6 V/m; Power Drift = -0.494 dB
Peak SAR (extrapolated) = 3.68 W/kg

SAR(1 g) = 2.97 mW/g; SAR(10 g) = 2.24 mW/g

Body-Worn - 1.3 cm Belt-Clip Separation Distance - Mid Channel/Zoom Scan (5x5x7)/Cube 2:

Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 53.6 V/m; Power Drift = -0.644 dB
Peak SAR (extrapolated) = 3.18 W/kg

SAR(1 g) = 2.35 mW/g; SAR(10 g) = 1.64 mW/g



Body-Worn SAR - NiMH Battery - Stubby Antenna (P/N: 501-0105-012)

Date Tested: 06/11/04

DUT: EF Johnson Model: 242-5172; Type: Portable FM PTT Radio Transceiver; Serial: 51720A000A 00001
Body-Worn Accessories: Belt-Clip (P/N: 585-5100-128), Speaker-Microphone (P/N: 589-0015-057)

Ambient Temp: 22.7 °C; Fluid Temp: 21.2 °C; Barometric Pressure: 102.3 kPa; Humidity: 41%

Communication System: FM Transmit

RF Output Power: 34.78 MHz (Conducted)

RF Output Power: 34.82 MHz (Conducted) - 2nd Maximum

RF Output Power: 34.82 MHz (Conducted) - 3rd Maximum

Frequency: 799.0125 MHz; Duty Cycle: 1:1

7.5V 3600mAh NiMH Battery Pack (P/N: 587-5100-360)

Medium: M799 ($\sigma = 0.95$ mho/m; $\epsilon_r = 53.8$; $\rho = 1000$ kg/m³)

- Probe: ET3DV6 - SN1387; ConvF(6.24, 6.24, 6.24); Calibrated: 18/03/2004

- Sensor-Surface: 4mm (Mechanical Surface Detection)

- Electronics: DAE3 Sn353; Calibrated: 19/12/2003

- Phantom: Planar; Type: Plexiglas; Serial: 161

- Measurement SW: DASY4, V4.2 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 112

Body-Worn - 1.3 cm Belt-Clip Separation Distance - Mid Channel/Area Scan (8x19x1):

Measurement grid: dx=15mm, dy=15mm

Body-Worn - 1.3 cm Belt-Clip Separation Distance - Mid Channel/Zoom Scan (5x5x7)/Cube 0:

Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 73.2 V/m; Power Drift = -0.729 dB

Peak SAR (extrapolated) = 10 W/kg

SAR(1 g) = 5.30 mW/g; SAR(10 g) = 3.37 mW/g

Body-Worn - 1.3 cm Belt-Clip Separation Distance - Mid Channel/Zoom Scan (5x5x7)/Cube 1:

Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 73.2 V/m; Power Drift = -0.622 dB

Peak SAR (extrapolated) = 6.7 W/kg

SAR(1 g) = 5.08 mW/g; SAR(10 g) = 3.66 mW/g

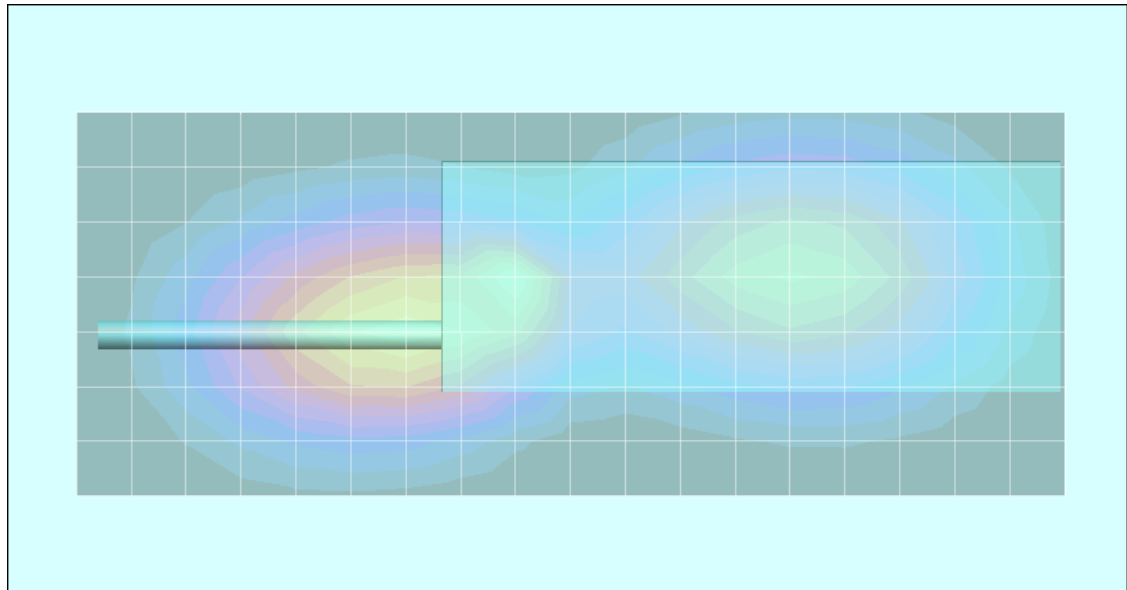
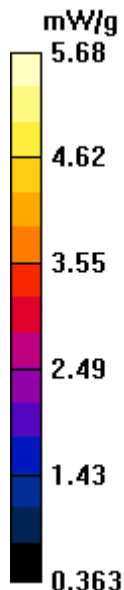
Body-Worn - 1.3 cm Belt-Clip Separation Distance - Mid Channel/Zoom Scan (5x5x7)/Cube 2:

Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 73.2 V/m; Power Drift = -0.490 dB

Peak SAR (extrapolated) = 5.59 W/kg

SAR(1 g) = 4.53 mW/g; SAR(10 g) = 3.42 mW/g



Body-Worn SAR - Alkaline Battery Pack (Duracell Procell) - Stubby Antenna (P/N: 501-0105-012)

Date Tested: 06/11/04

DUT: EF Johnson Model: 242-5172; Type: Portable FM PTT Radio Transceiver; Serial: 51720A000A 00001
Body-Worn Accessories: Belt-Clip (P/N: 585-5100-128), Speaker-Microphone (P/N: 589-0015-057)

Ambient Temp: 22.7 °C; Fluid Temp: 21.2 °C; Barometric Pressure: 102.3 kPa; Humidity: 41%

Communication System: FM Transmit

RF Output Power: 34.76 MHz (Conducted)

RF Output Power: 34.81 MHz (Conducted) - 2nd Maximum

Frequency: 799.0125 MHz; Duty Cycle: 1:1

9V AA Alkaline Duracell ProCell Battery Pack (Battery Case P/N: 250-5100-280)

Medium: M799 ($\sigma = 0.95$ mho/m; $\epsilon_r = 53.8$; $\rho = 1000$ kg/m³)

- Probe: ET3DV6 - SN1387; ConvF(6.24, 6.24, 6.24); Calibrated: 18/03/2004
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn353; Calibrated: 19/12/2003
- Phantom: Planar; Type: Plexiglas; Serial: 161
- Measurement SW: DASY4, V4.2 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 112

Body-Worn - 1.3 cm Belt-Clip Separation Distance - Mid Channel/Area Scan (8x21x1):

Measurement grid: dx=15mm, dy=15mm

Body-Worn - 1.3 cm Belt-Clip Separation Distance - Mid Channel/Zoom Scan (5x5x7)/Cube 0:

Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 61 V/m; Power Drift = -0.216 dB

Peak SAR (extrapolated) = 5.06 W/kg

SAR(1 g) = 3.88 mW/g; SAR(10 g) = 2.81 mW/g

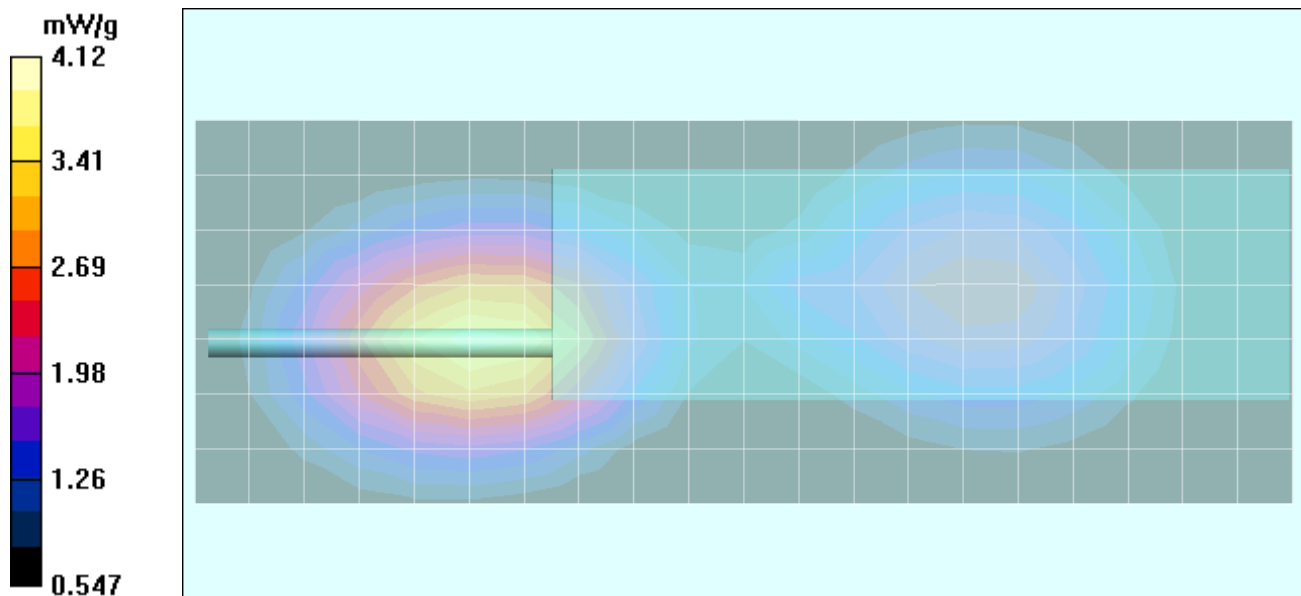
Body-Worn - 1.3 cm Belt-Clip Separation Distance - Mid Channel/Zoom Scan (5x5x7)/Cube 1:

Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 61 V/m; Power Drift = -0.123 dB

Peak SAR (extrapolated) = 3.25 W/kg

SAR(1 g) = 2.63 mW/g; SAR(10 g) = 1.97 mW/g



Body-Worn SAR - NiMH Battery - Stubby Antenna (P/N: 501-0105-012)

Date Tested: 06/11/04

DUT: EF Johnson Model: 242-5172; Type: Portable FM PTT Radio Transceiver; Serial: 51720A000A 00001
Body-Worn Accessories: Belt-Clip (P/N: 585-5100-128), Speaker-Microphone (P/N: 589-0015-057)

Ambient Temp: 22.7 °C; Fluid Temp: 21.2 °C; Barometric Pressure: 102.3 kPa; Humidity: 41%

Communication System: FM Transmit

RF Output Power: 35.13 MHz (Conducted)

RF Output Power: 35.18 MHz (Conducted) - 2nd Maximum

RF Output Power: 35.20 MHz (Conducted) - 3rd Maximum

Frequency: 814.5125 MHz; Duty Cycle: 1:1

7.5V 3600mAh NiMH Battery Pack (P/N: 587-5100-360)

Medium: M815 ($\sigma = 0.97$ mho/m; $\epsilon_r = 53.2$; $\rho = 1000$ kg/m³)

- Probe: ET3DV6 - SN1387; ConvF(6.24, 6.24, 6.24); Calibrated: 18/03/2004

- Sensor-Surface: 4mm (Mechanical Surface Detection)

- Electronics: DAE3 Sn353; Calibrated: 19/12/2003

- Phantom: Planar; Type: Plexiglas; Serial: 161

- Measurement SW: DASY4, V4.2 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 112

Body-Worn - 1.3 cm Belt-Clip Separation Distance - Mid Channel/Area Scan (8x19x1):

Measurement grid: dx=15mm, dy=15mm

Body-Worn - 1.3 cm Belt-Clip Separation Distance - Mid Channel/Zoom Scan (5x5x7)/Cube 0:

Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 75.4 V/m; Power Drift = -0.689 dB

Peak SAR (extrapolated) = 9.7 W/kg

SAR(1 g) = 5.34 mW/g; SAR(10 g) = 3.58 mW/g

Body-Worn - 1.3 cm Belt-Clip Separation Distance - Mid Channel/Zoom Scan (5x5x7)/Cube 1:

Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 75.4 V/m; Power Drift = -0.650 dB

Peak SAR (extrapolated) = 7 W/kg

SAR(1 g) = 5.30 mW/g; SAR(10 g) = 3.81 mW/g

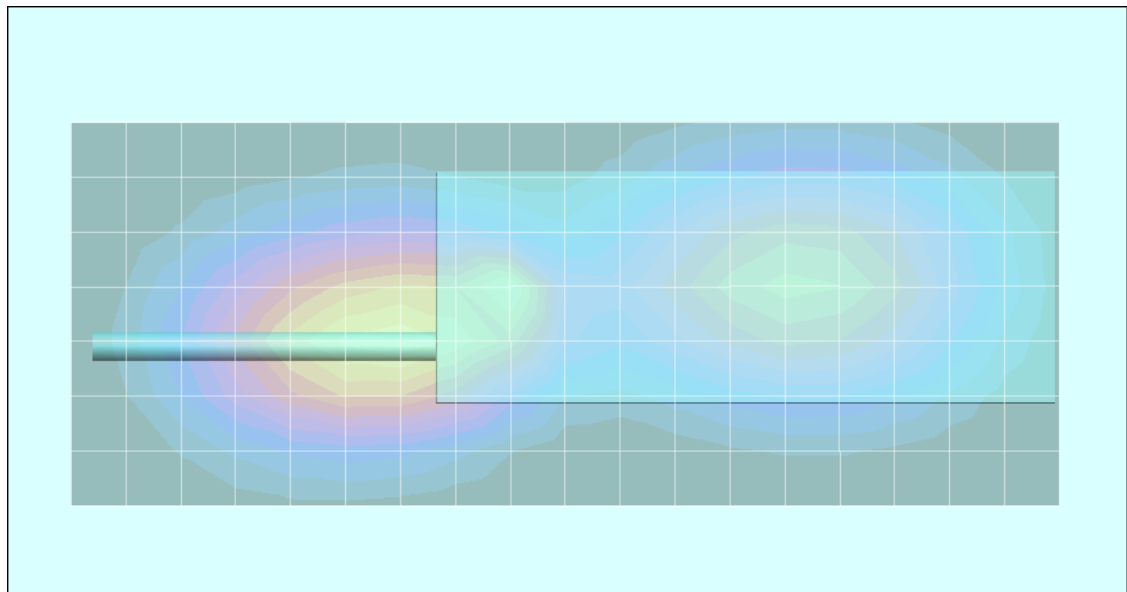
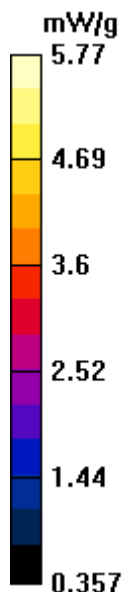
Body-Worn - 1.3 cm Belt-Clip Separation Distance - Mid Channel/Zoom Scan (5x5x7)/Cube 2:

Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 75.4 V/m; Power Drift = -0.643 dB

Peak SAR (extrapolated) = 4.9 W/kg

SAR(1 g) = 3.97 mW/g; SAR(10 g) = 2.98 mW/g



Body-Worn SAR - Alkaline Battery Pack (Duracell Procell) - Stubby Antenna (P/N: 501-0105-012)

Date Tested: 06/11/04

DUT: EF Johnson Model: 242-5172; Type: Portable FM PTT Radio Transceiver; Serial: 51720A000A 00001

Body-Worn Accessories: Belt-Clip (P/N: 585-5100-128), Speaker-Microphone (P/N: 589-0015-057)

Ambient Temp: 22.7 °C; Fluid Temp: 21.2 °C; Barometric Pressure: 102.3 kPa; Humidity: 41%

Communication System: FM Transmit

RF Output Power: 35.24 MHz (Conducted)

Frequency: 814.5125 MHz; Duty Cycle: 1:1

9V AA Alkaline Duracell ProCell Battery Pack (Battery Case P/N: 250-5100-280)

Medium: M815 ($\sigma = 0.97$ mho/m; $\epsilon_r = 53.2$; $\rho = 1000$ kg/m³)

- Probe: ET3DV6 - SN1387; ConvF(6.24, 6.24, 6.24); Calibrated: 18/03/2004
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn353; Calibrated: 19/12/2003
- Phantom: Planar; Type: Plexiglas; Serial: 161
- Measurement SW: DASY4, V4.2 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 112

Body-Worn - 1.3 cm Belt-Clip Separation Distance - Mid Channel/Area Scan (8x21x1):

Measurement grid: dx=15mm, dy=15mm

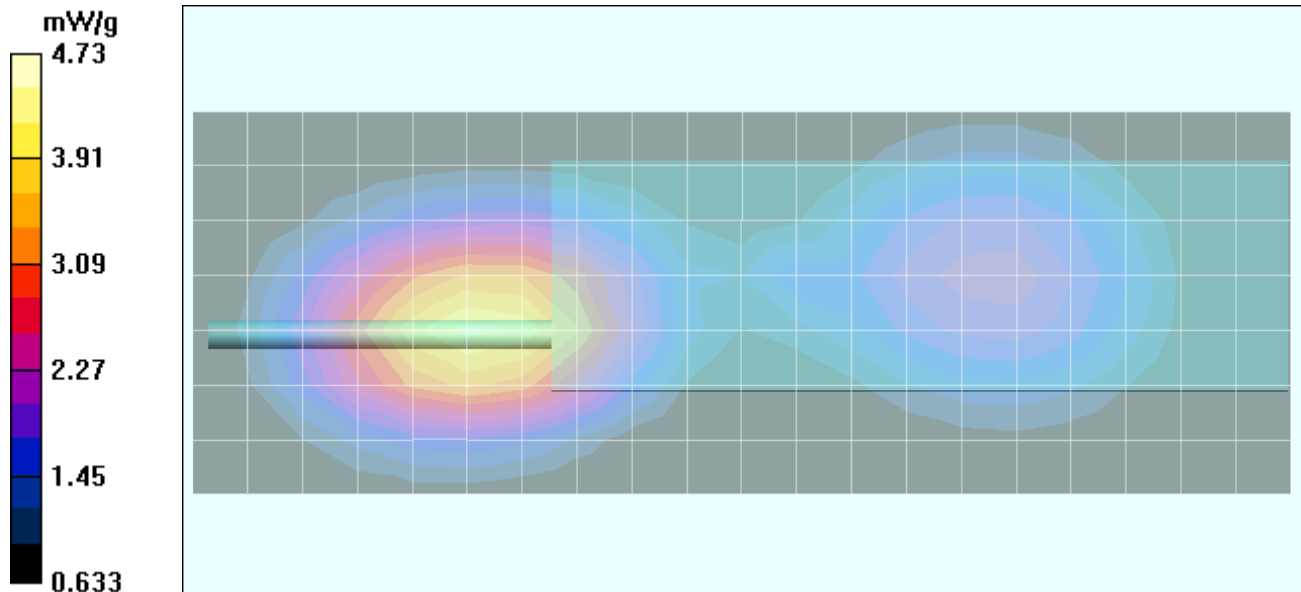
Body-Worn - 1.3 cm Belt-Clip Separation Distance - Mid Channel/Zoom Scan (5x5x7)/Cube 0:

Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 65 V/m; Power Drift = -0.771 dB

Peak SAR (extrapolated) = 5.87 W/kg

SAR(1 g) = 4.49 mW/g; SAR(10 g) = 3.24 mW/g



Body-Worn SAR - NiMH Battery - Stubby Antenna (P/N: 501-0105-012)

Date Tested: 06/11/04

DUT: EF Johnson Model: 242-5172; Type: Portable FM PTT Radio Transceiver; Serial: 51720A000A 00001

Body-Worn Accessories: Belt-Clip (P/N: 585-5100-128), Speaker-Microphone (P/N: 589-0015-057)

Ambient Temp: 22.7 °C; Fluid Temp: 21.2 °C; Barometric Pressure: 102.3 kPa; Humidity: 41%

Communication System: FM Transmit Talk-Around
 RF Output Power: 35.20 MHz (Conducted)
 RF Output Power: 35.20 MHz (Conducted) - 2nd Maximum
 Frequency: 859.5125 MHz; Duty Cycle: 1:1
 7.5V 3600mAh NiMH Battery Pack (P/N: 587-5100-360)
 Medium: M860 ($\sigma = 1.01$ mho/m; $\epsilon_r = 52.7$; $\rho = 1000$ kg/m³)

- Probe: ET3DV6 - SN1387; ConvF(6.24, 6.24, 6.24); Calibrated: 18/03/2004
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn353; Calibrated: 19/12/2003
- Phantom: Planar; Type: Plexiglas; Serial: 161
- Measurement SW: DASY4, V4.2 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 112

Body-Worn - 1.3 cm Belt-Clip Separation Distance - Mid Channel/Area Scan (8x19x1):

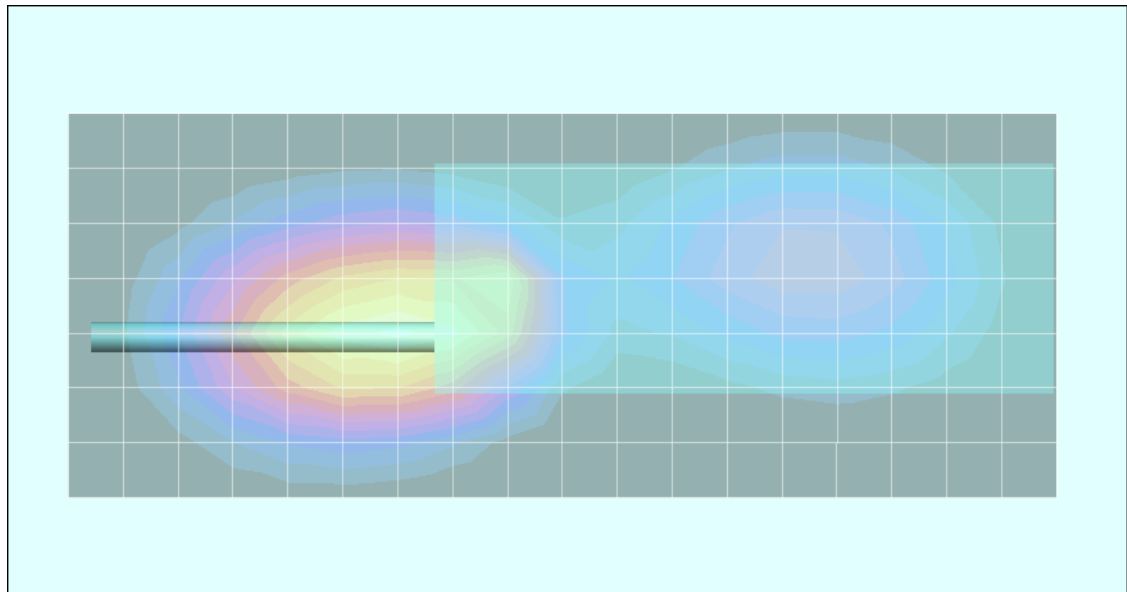
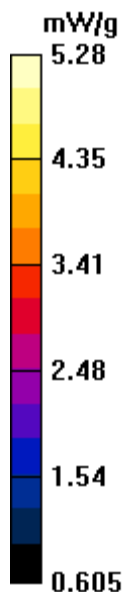
Measurement grid: dx=15mm, dy=15mm

Body-Worn - 1.3 cm Belt-Clip Separation Distance - Mid Channel/Zoom Scan (5x5x7)/Cube 0:

Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
 Reference Value = 74.8 V/m; Power Drift = -0.772 dB
 Peak SAR (extrapolated) = 6.63 W/kg
SAR(1 g) = 4.97 mW/g; SAR(10 g) = 3.53 mW/g

Body-Worn - 1.3 cm Belt-Clip Separation Distance - Mid Channel/Zoom Scan (5x5x7)/Cube 1:

Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
 Reference Value = 74.8 V/m; Power Drift = -0.946 dB
 Peak SAR (extrapolated) = 8.07 W/kg
SAR(1 g) = 5.17 mW/g; SAR(10 g) = 3.52 mW/g



Body-Worn SAR - Alkaline Battery Pack (Duracell Procell) - Stubby Antenna (P/N: 501-0105-012)

Date Tested: 06/11/04

DUT: EF Johnson Model: 242-5172; Type: Portable FM PTT Radio Transceiver; Serial: 51720A000A 00001

Body-Worn Accessories: Belt-Clip (P/N: 585-5100-128), Speaker-Microphone (P/N: 589-0015-057)

Ambient Temp: 22.7 °C; Fluid Temp: 21.2 °C; Barometric Pressure: 102.3 kPa; Humidity: 41%

Communication System: FM Transmit Talk-Around
 RF Output Power: 35.19 MHz (Conducted)
 Frequency: 859.5125 MHz; Duty Cycle: 1:1
 9V AA Alkaline Duracell ProCell Battery Pack (Battery Case P/N: 250-5100-280)
 Medium: M860 ($\sigma = 1.01$ mho/m; $\epsilon_r = 52.7$; $\rho = 1000$ kg/m³)

- Probe: ET3DV6 - SN1387; ConvF(6.24, 6.24, 6.24); Calibrated: 18/03/2004
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn353; Calibrated: 19/12/2003
- Phantom: Planar; Type: Plexiglas; Serial: 161
- Measurement SW: DASY4, V4.2 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 112

Body-Worn - 1.3 cm Belt-Clip Separation Distance - Mid Channel/Area Scan (8x21x1):

Measurement grid: dx=15mm, dy=15mm

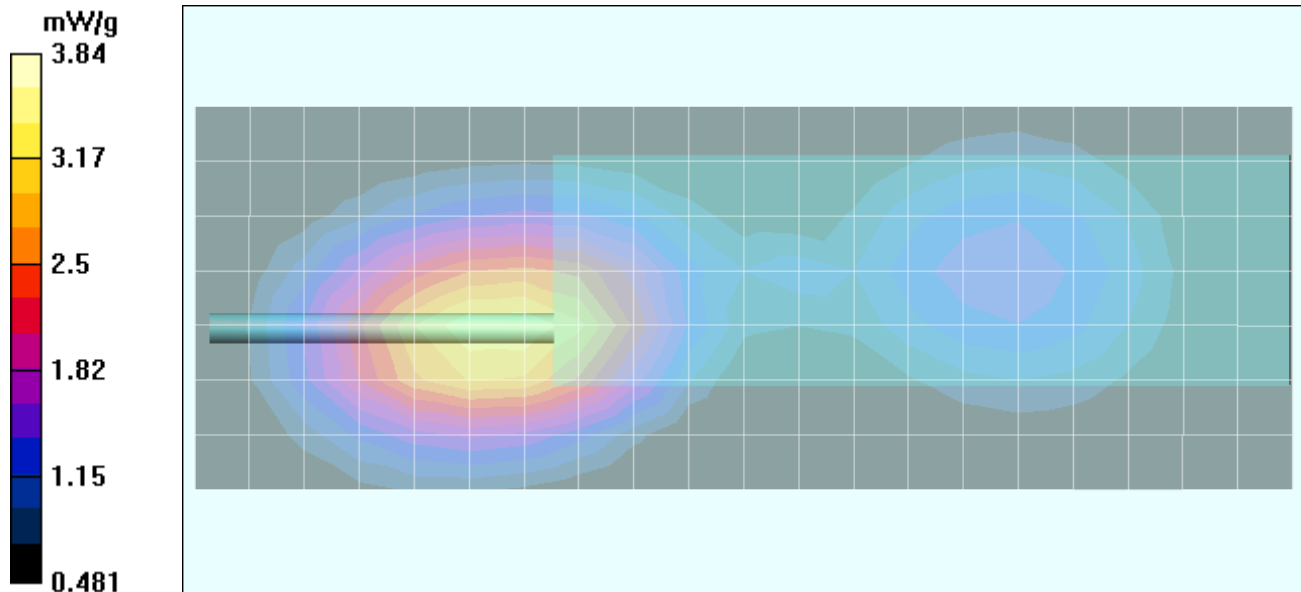
Body-Worn - 1.3 cm Belt-Clip Separation Distance - Mid Channel/Zoom Scan (5x5x7)/Cube 0:

Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 61.1 V/m; Power Drift = -1.02 dB

Peak SAR (extrapolated) = 4.77 W/kg

SAR(1 g) = 3.61 mW/g; SAR(10 g) = 2.58 mW/g



Body-Worn SAR - Alkaline Battery Pack (Energizer E91) - Whip Antenna (P/N: 501-0105-013)

Date Tested: 06/11/04

DUT: EF Johnson Model: 242-5172; Type: Portable FM PTT Radio Transceiver; Serial: 51720A000A 00001

Body-Worn Accessories: Belt-Clip (P/N: 585-5100-128), Boom-Microphone Headset (P/N: 589-0015-059)

Ambient Temp: 22.7 °C; Fluid Temp: 21.2 °C; Barometric Pressure: 102.3 kPa; Humidity: 41%

Communication System: FM Transmit
RF Output Power: 35.11 MHz (Conducted)
Frequency: 814.5125 MHz; Duty Cycle: 1:1
9V AA Alkaline Energizer E91 Battery Pack (Battery Case P/N: 250-5100-280)
Medium: M815 ($\sigma = 0.97$ mho/m; $\epsilon_r = 53.2$; $\rho = 1000$ kg/m³)

- Probe: ET3DV6 - SN1387; ConvF(6.24, 6.24, 6.24); Calibrated: 18/03/2004
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn353; Calibrated: 19/12/2003
- Phantom: Planar; Type: Plexiglas; Serial: 161
- Measurement SW: DASY4, V4.2 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 112

Body-Worn - 1.3 cm Belt-Clip Separation Distance - Mid Channel/Area Scan (8x27x1):

Measurement grid: dx=15mm, dy=15mm

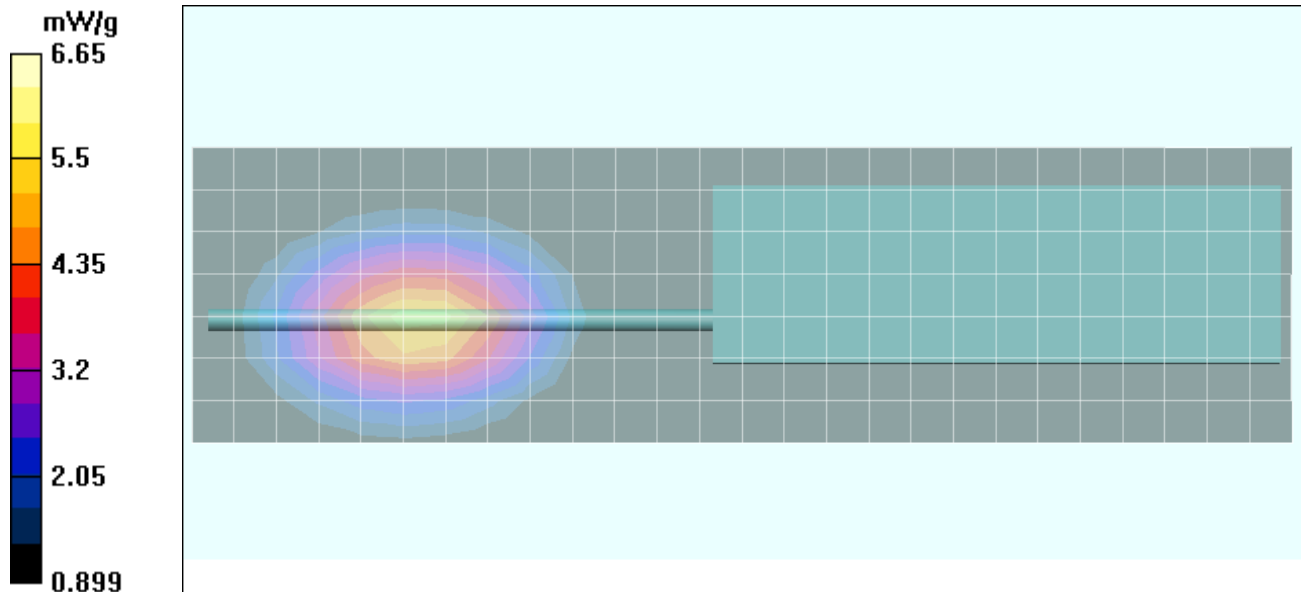
Body-Worn - 1.3 cm Belt-Clip Separation Distance - Mid Channel/Zoom Scan (5x5x7)/Cube 0:

Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 13.2 V/m; Power Drift = -1.09 dB

Peak SAR (extrapolated) = 8.18 W/kg

SAR(1 g) = 6.29 mW/g; SAR(10 g) = 4.55 mW/g



Z-Axis Scan

