

Test Report S/N:	100803-433ATH
Test Date(s):	October 15-17, 20, 2003
Test Type:	FCC/IC SAR Evaluation

APPENDIX A - SAR MEASUREMENT DATA

Date Tested: 10/15/03

DUT: EF Johnson; Model: 242-5180; Type: FM PTT Portable Radio Transceiver (806-869MHz); Serial: 51830A103A 16525
Body-worn Accessories: Belt-Clip (1.3 cm thickness), Boom-Microphone Headset

Ambient Temp: 20.6°C; Fluid Temp: 20.3°C; Barometric Pressure: 101.9 kPa; Humidity: 56%

Communication System: 800MHz FM
Conducted Output Power: 3.37 Watts
Frequency: 815.0125 MHz; Duty Cycle: 1:1
Medium: M835 ($\sigma = 1.00$ mho/m, $\epsilon_r = 54.5$, $\rho = 1000$ kg/m³)

- Probe: ET3DV6 - SN1387; ConvF(6.4, 6.4, 6.4); Calibrated: 26/02/2003
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn370; Calibrated: 19/05/2003
- Phantom: Planar; Type: Plexiglas; Serial: 161
- Measurement SW: DASY4, V4.1 Build 47; Postprocessing SW: SEMCAD, V1.6 Build 116

Body-Worn - NiMH Battery - Stubby Antenna - Low-Band Mid-Channel/Area Scan (7x20x1):

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

Body-Worn - NiMH Battery - Stubby Antenna - Low-Band Mid-Channel/Zoom Scan (7x7x7)/Cube 0:

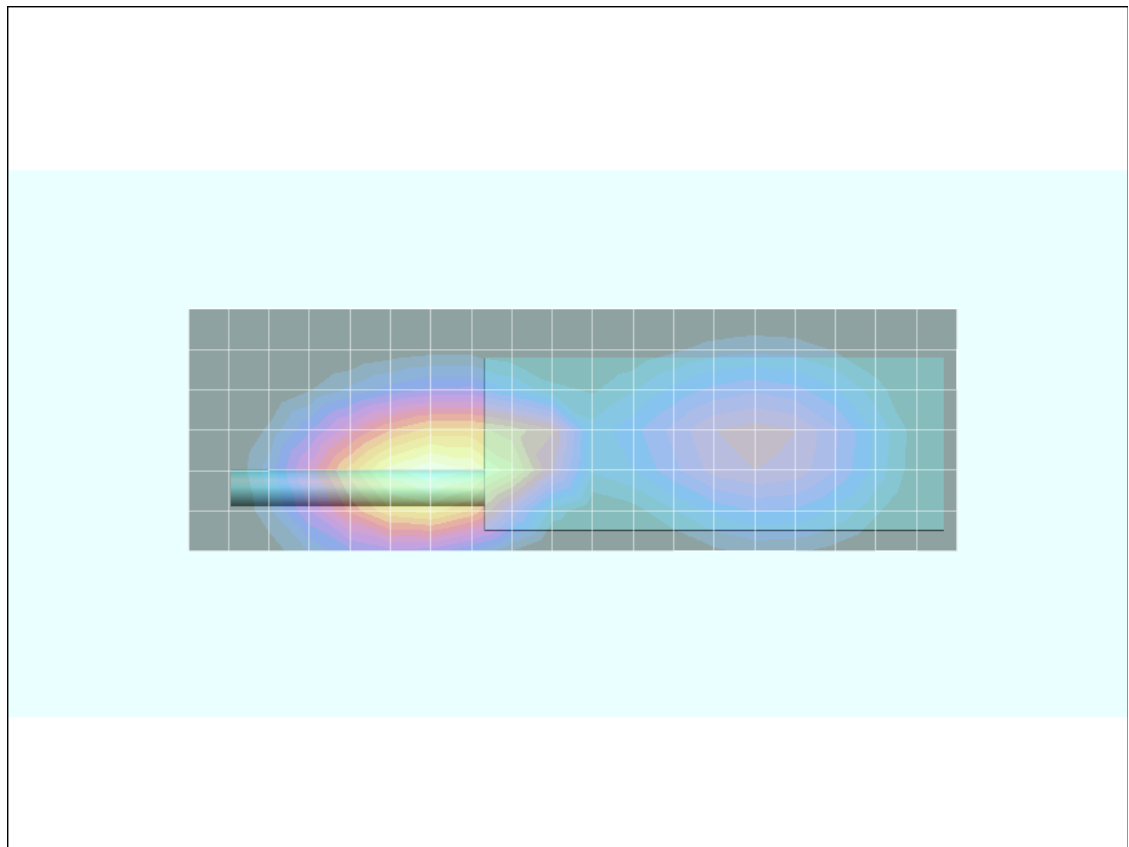
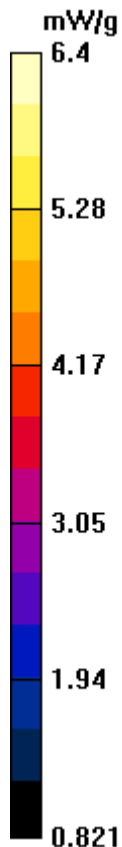
Measurement grid: dx=5mm, dy=5mm, dz=5mm

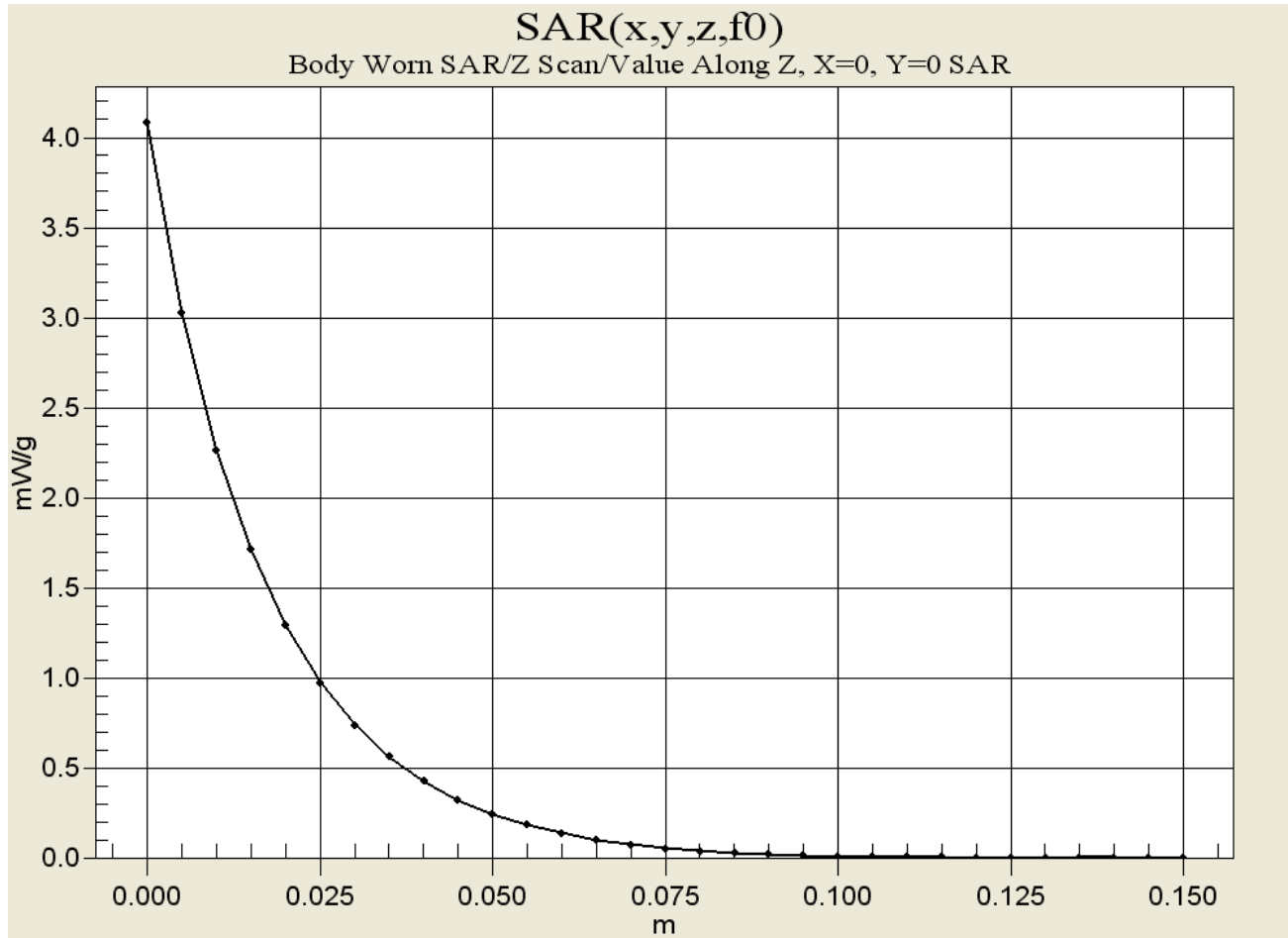
Peak SAR (extrapolated) = 8.01 W/kg

SAR(1 g) = 6.03 mW/g; SAR(10 g) = 4.27 mW/g

Reference Value = 79.8 V/m

Power Drift = -0.28 dB





Date Tested: 10/15/03

DUT: EF Johnson; Model: 242-5180; Type: FM PTT Portable Radio Transceiver (806-869MHz); Serial: 51830A103A 16525
Body-worn Accessories: Belt-Clip (1.3 cm thickness), Boom-Microphone Headset

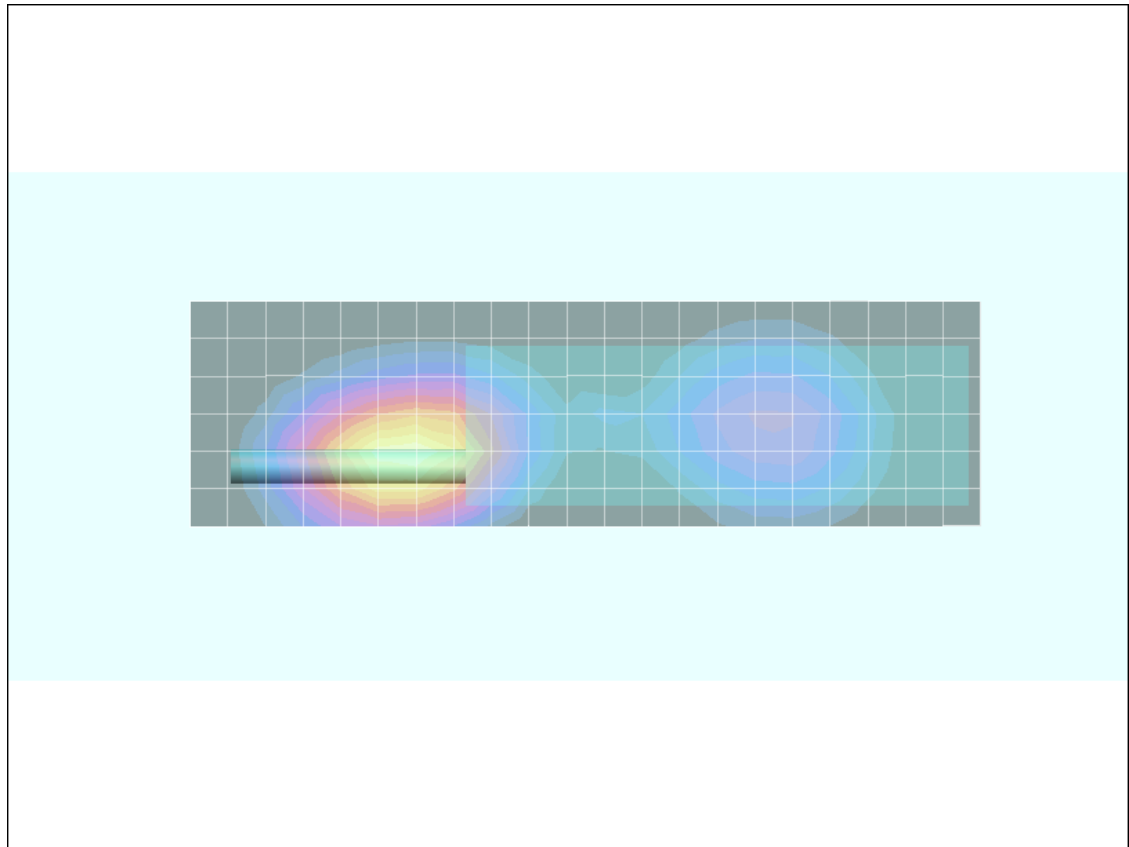
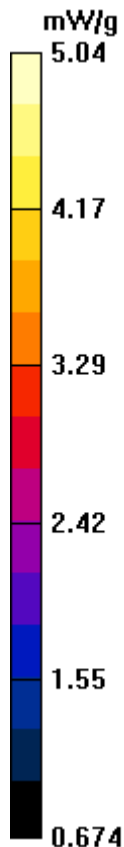
Ambient Temp: 20.6°C; Fluid Temp: 20.3°C; Barometric Pressure: 101.9 kPa; Humidity: 56%

Communication System: 800MHz FM
 Conducted Output Power: 3.36 Watts
 Frequency: 815.0125 MHz; Duty Cycle: 1:1
 Medium: M835 ($\sigma = 1.00$ mho/m, $\epsilon_r = 54.5$, $\rho = 1000$ kg/m³)

- Probe: ET3DV6 - SN1387; ConvF(6.4, 6.4, 6.4); Calibrated: 26/02/2003
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn370; Calibrated: 19/05/2003
- Phantom: Planar; Type: Plexiglas; Serial: 161
- Measurement SW: DASY4, V4.1 Build 47; Postprocessing SW: SEMCAD, V1.6 Build 116

Body-Worn - Alkaline Battery Pack - Stubby Antenna - Low-Band Mid-Channel/Area Scan (7x22x1):
 Measurement grid: dx=15mm, dy=15mm

Body-Worn - Alkaline Battery Pack - Stubby Antenna - Low-Band Mid-Channel/Zoom Scan (7x7x7)/Cube 0:
 Measurement grid: dx=5mm, dy=5mm, dz=5mm
 Peak SAR (extrapolated) = 6.31 W/kg
SAR(1 g) = 4.77 mW/g; SAR(10 g) = 3.41 mW/g
 Reference Value = 65 V/m
 Power Drift = -0.29 dB



Date Tested: 10/15/03

DUT: EF Johnson; Model: 242-5180; Type: FM PTT Portable Radio Transceiver (806-869MHz); Serial: 51830A103A 16525

Body-worn Accessories: Belt-Clip (1.3 cm thickness), Boom-Microphone Headset

Ambient Temp: 20.6°C; Fluid Temp: 20.3°C; Barometric Pressure: 101.9 kPa; Humidity: 56%

Communication System: 800MHz FM

Conducted Output Power: 3.44 Watts

Frequency: 860.0125 MHz; Duty Cycle: 1:1

Medium: M835 ($\sigma = 1.00$ mho/m, $\epsilon_r = 54.5$, $\rho = 1000$ kg/m³)

- Probe: ET3DV6 - SN1387; ConvF(6.4, 6.4, 6.4); Calibrated: 26/02/2003

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

- Electronics: DAE3 Sn370; Calibrated: 19/05/2003

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

- Measurement SW: DASY4, V4.1 Build 47; Postprocessing SW: SEMCAD, V1.6 Build 116

Body Worn - NiMH Battery - Stubby Antenna - High-Band Mid-Channel/Area Scan (7x20x1):

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

Body Worn - NiMH Battery - Stubby Antenna - High-Band Mid-Channel/Zoom Scan (7x7x7)/Cube 0:

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

Peak SAR (extrapolated) = 13 W/kg

SAR(1 g) = 5.53 mW/g; SAR(10 g) = 3.86 mW/g

Reference Value = 73.9 V/m

Power Drift = -0.23 dB

Body Worn - NiMH Battery - Stubby Antenna - High-Band Mid-Channel/Zoom Scan (7x7x7)/Cube 1:

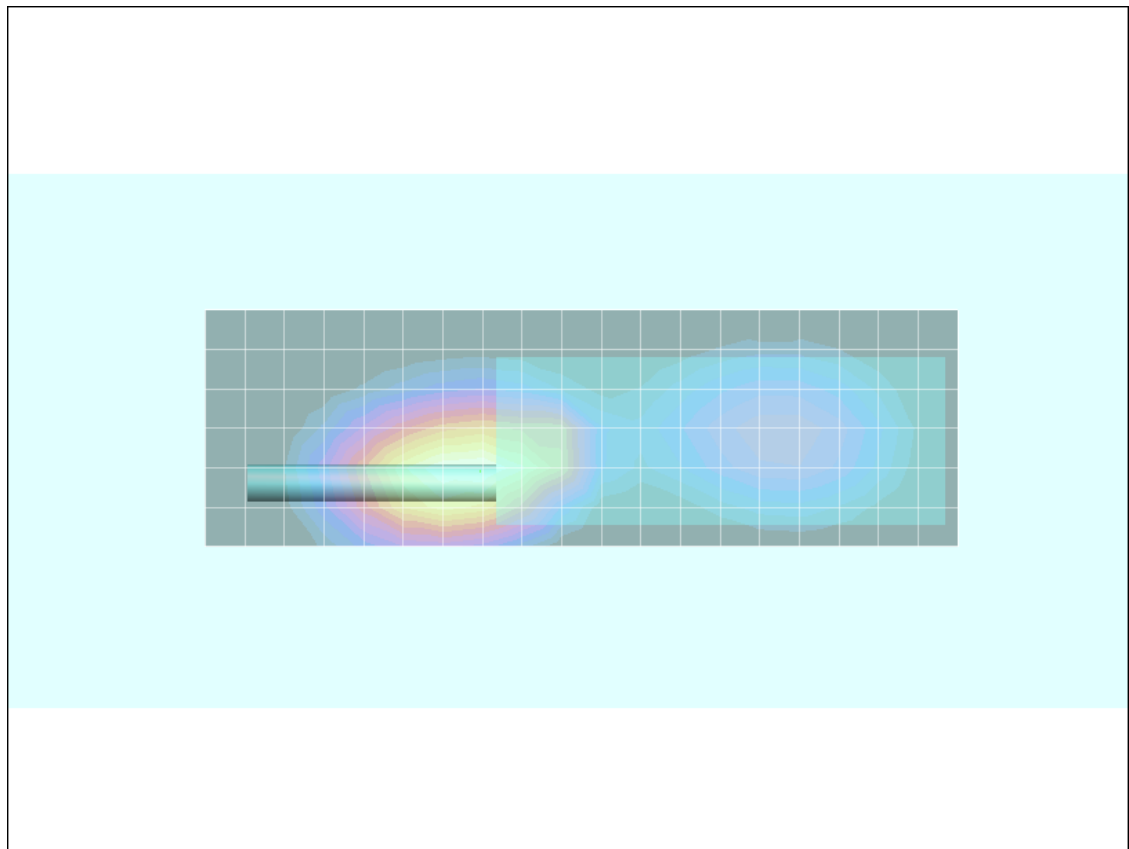
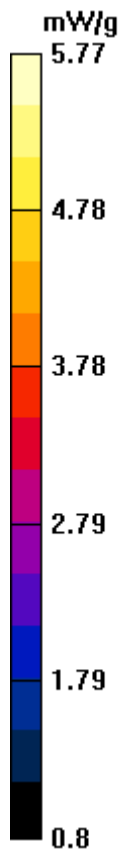
Measurement grid: dx=5mm, dy=5mm, dz=5mm

Peak SAR (extrapolated) = 8.29 W/kg

SAR(1 g) = 4.48 mW/g; SAR(10 g) = 2.96 mW/g

Reference Value = 73.9 V/m

Power Drift = -0.23 dB



Date Tested: 10/15/03

DUT: EF Johnson; Model: 242-5180; Type: FM PTT Portable Radio Transceiver (806-869MHz); Serial: 51830A103A 16525
Body-worn Accessories: Belt-Clip (1.3 cm thickness), Boom-Microphone Headset

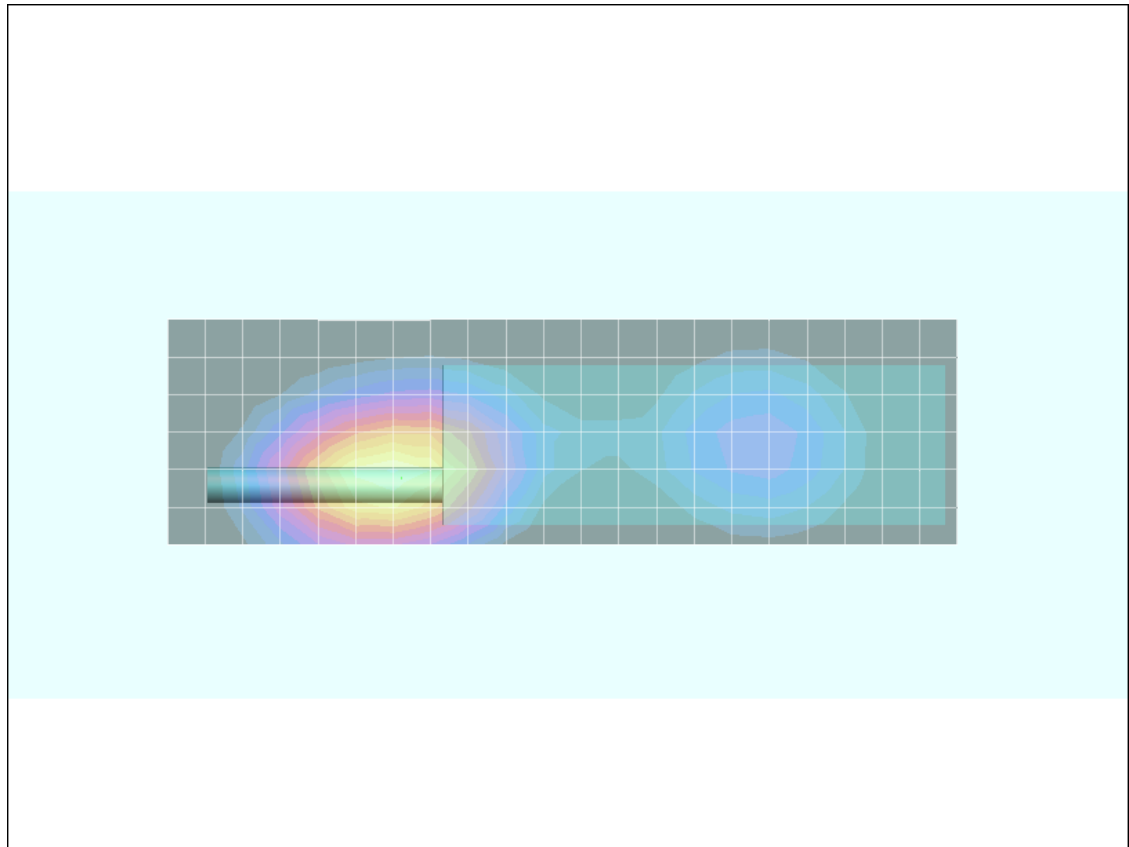
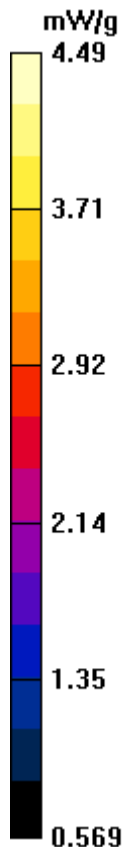
Ambient Temp: 20.6°C; Fluid Temp: 20.3°C; Barometric Pressure: 101.9 kPa; Humidity: 56%

Communication System: 800MHz FM
 Conducted Output Power: 3.45 Watts
 Frequency: 860.0125 MHz; Duty Cycle: 1:1
 Medium: M835 ($\sigma = 1.00$ mho/m, $\epsilon_r = 54.5$, $\rho = 1000$ kg/m³)

- Probe: ET3DV6 - SN1387; ConvF(6.4, 6.4, 6.4); Calibrated: 26/02/2003
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn370; Calibrated: 19/05/2003
- Phantom: Planar; Type: Plexiglas; Serial: 161
- Measurement SW: DASY4, V4.1 Build 47; Postprocessing SW: SEMCAD, V1.6 Build 116

Body Worn - Alkaline Battery Pack - Stubby Antenna - High-Band Mid-Channel/Area Scan (7x22x1):
 Measurement grid: dx=15mm, dy=15mm

Body Worn - Alkaline Battery Pack - Stubby Antenna - High-Band Mid-Channel/Zoom Scan (7x7x7)/Cube 0:
 Measurement grid: dx=5mm, dy=5mm, dz=5mm
 Peak SAR (extrapolated) = 5.61 W/kg
SAR(1 g) = 4.24 mW/g; SAR(10 g) = 3 mW/g
 Reference Value = 61.2 V/m
 Power Drift = -0.18 dB



Date Tested: 10/15/03

DUT: EF Johnson; Model: 242-5180; Type: FM PTT Portable Radio Transceiver (806-869MHz); Serial: 51830A103A 16525

Body-worn Accessories: Belt-Clip (1.3 cm thickness), Speaker-Microphone

Ambient Temp: 20.6°C; Fluid Temp: 20.3°C; Barometric Pressure: 101.9 kPa; Humidity: 56%

Communication System: 800MHz FM

Conducted Output Power: 3.47 Watts

Frequency: 815.0125 MHz; Duty Cycle: 1:1

Medium: M835 ($\sigma = 1.00$ mho/m, $\epsilon_r = 54.5$, $\rho = 1000$ kg/m³)

- Probe: ET3DV6 - SN1387; ConvF(6.4, 6.4, 6.4); Calibrated: 26/02/2003

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

- Electronics: DAE3 Sn370; Calibrated: 19/05/2003

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

- Measurement SW: DASY4, V4.1 Build 47; Postprocessing SW: SEMCAD, V1.6 Build 116

Body Worn - NiMH Battery - Stubby Antenna - Low-Band Mid-Channel/Area Scan (7x20x1):

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

Body Worn - NiMH Battery - Stubby Antenna - Low-Band Mid-Channel/Zoom Scan (7x7x7)/Cube 0:

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

Peak SAR (extrapolated) = 7.47 W/kg

SAR(1 g) = 5.62 mW/g; SAR(10 g) = 3.99 mW/g

Reference Value = 80.2 V/m

Power Drift = -0.35 dB

Body Worn - NiMH Battery - Stubby Antenna - Low-Band Mid-Channel/Zoom Scan (7x7x7)/Cube 1:

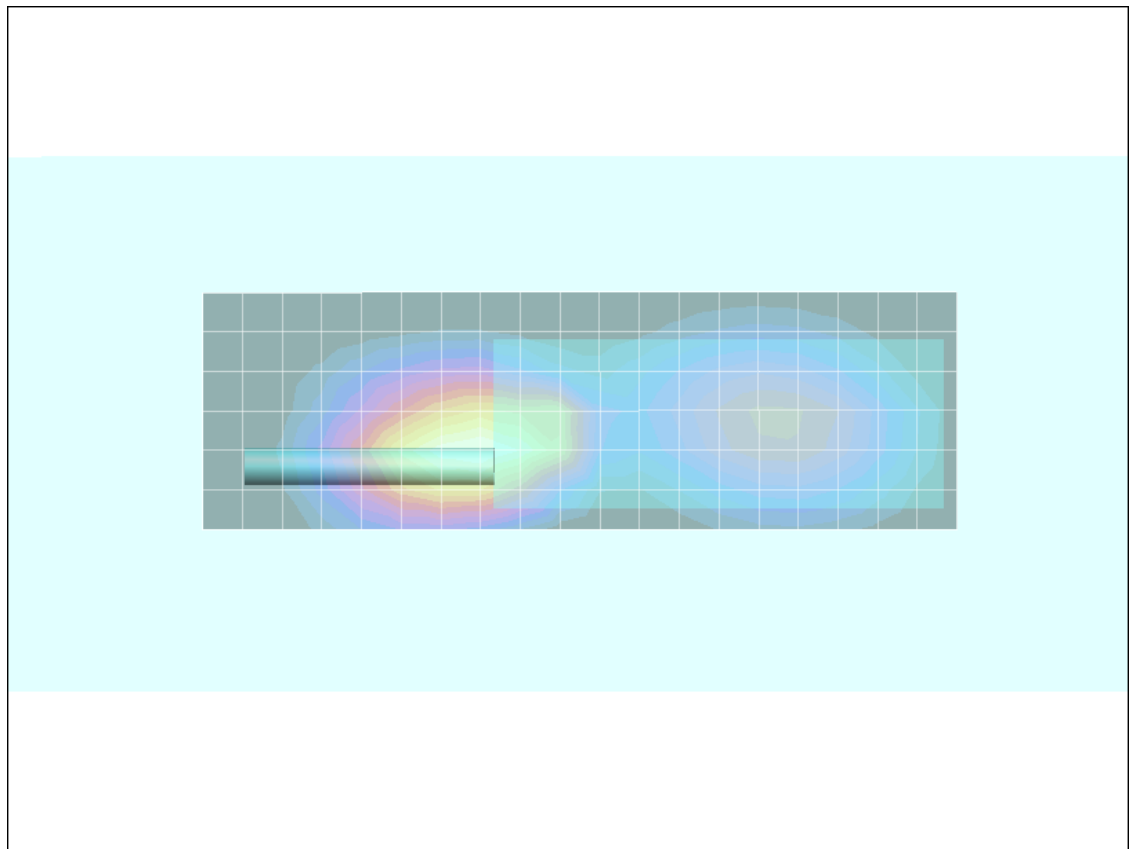
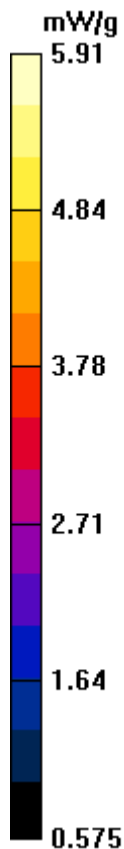
Measurement grid: dx=5mm, dy=5mm, dz=5mm

Peak SAR (extrapolated) = 9.62 W/kg

SAR(1 g) = 5.27 mW/g; SAR(10 g) = 3.48 mW/g

Reference Value = 80.2 V/m

Power Drift = -0.35 dB



Date Tested: 10/16/03

DUT: EF Johnson; Model: 242-5180; Type: FM PTT Portable Radio Transceiver (806-869MHz); Serial: 51830A103A 16525
Body-worn Accessories: Belt-Clip (1.3 cm thickness), Speaker-Microphone

Ambient Temp: 20.4°C; Fluid Temp: 20.2°C; Barometric Pressure: 101.1 kPa; Humidity: 54%

Communication System: 800MHz FM
 Conducted Output Power: 3.42 Watts
 Frequency: 815.0125 MHz; Duty Cycle: 1:1
 Medium: M835 ($\sigma = 1.01$ mho/m, $\epsilon_r = 54.7$, $\rho = 1000$ kg/m³)

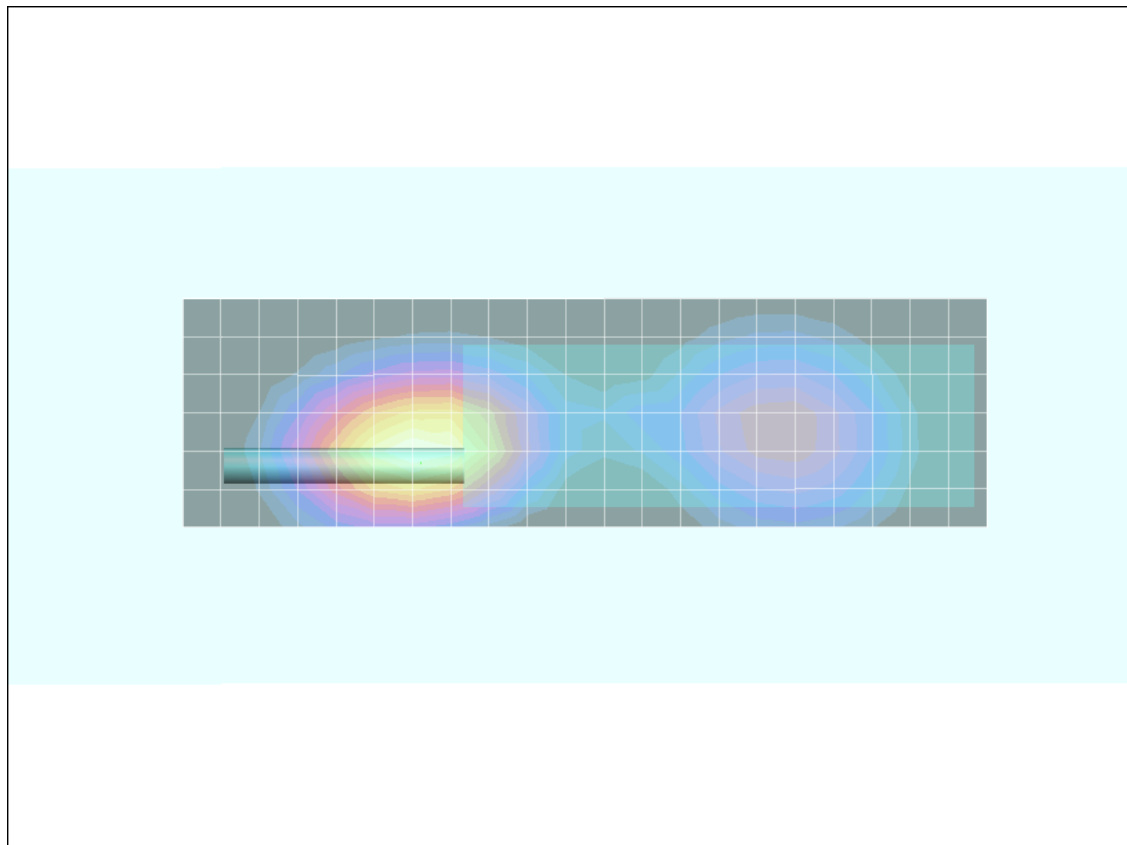
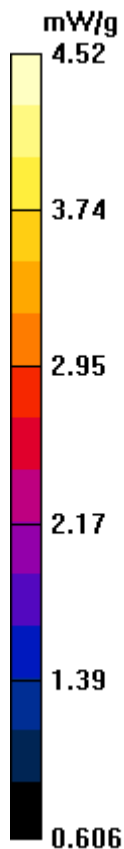
- Probe: ET3DV6 - SN1387; ConvF(6.4, 6.4, 6.4); Calibrated: 26/02/2003
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn370; Calibrated: 19/05/2003
- Phantom: Planar; Type: Plexiglas; Serial: 161
- Measurement SW: DASY4, V4.1 Build 47; Postprocessing SW: SEMCAD, V1.6 Build 116

Body Worn - Alkaline Battery Pack - Stubby Antenna - Low-Band Mid-Channel/Area Scan (7x22x1):

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

Body Worn - Alkaline Battery Pack - Stubby Antenna - Low-Band Mid-Channel/Zoom Scan (7x7x7)/Cube 0:

Measurement grid: dx=5mm, dy=5mm, dz=5mm
 Peak SAR (extrapolated) = 5.61 W/kg
SAR(1 g) = 4.28 mW/g; SAR(10 g) = 3.05 mW/g
 Reference Value = 67.7 V/m
 Power Drift = -0.32 dB



Date Tested: 10/16/03

DUT: EF Johnson; Model: 242-5180; Type: FM PTT Portable Radio Transceiver (806-869MHz); Serial: 51830A103A 16525

Body-worn Accessories: Belt-Clip (1.3 cm thickness), Speaker-Microphone

Ambient Temp: 20.4°C; Fluid Temp: 20.2°C; Barometric Pressure: 101.1 kPa; Humidity: 54%

Communication System: 800MHz FM

Conducted Output Power: 3.45 Watts

Frequency: 860.0125 MHz; Duty Cycle: 1:1

Medium: M835 ($\sigma = 1.01$ mho/m, $\epsilon_r = 54.7$, $\rho = 1000$ kg/m³)

- Probe: ET3DV6 - SN1387; ConvF(6.4, 6.4, 6.4); Calibrated: 26/02/2003

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

- Electronics: DAE3 Sn370; Calibrated: 19/05/2003

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

- Measurement SW: DASY4, V4.1 Build 47; Postprocessing SW: SEMCAD, V1.6 Build 116

Body Worn - NiMH Battery - Stubby Antenna - High-Band Mid-Channel/Area Scan (7x20x1):

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

Body Worn - NiMH Battery - Stubby Antenna - High-Band Mid-Channel/Zoom Scan (7x7x7)/Cube 0:

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

Peak SAR (extrapolated) = 7.5 W/kg

SAR(1 g) = 5.59 mW/g; SAR(10 g) = 3.93 mW/g

Reference Value = 75.2 V/m

Power Drift = -0.13 dB

Body Worn - NiMH Battery - Stubby Antenna - High-Band Mid-Channel/Zoom Scan (7x7x7)/Cube 1:

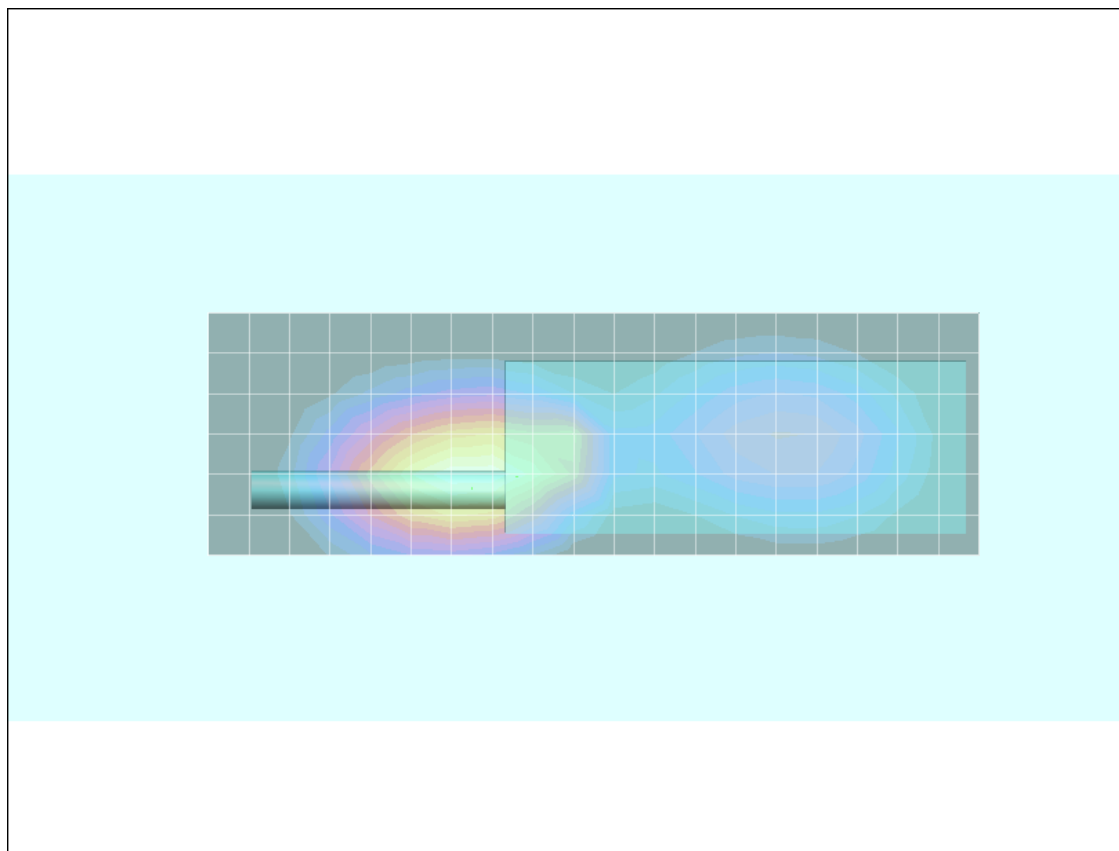
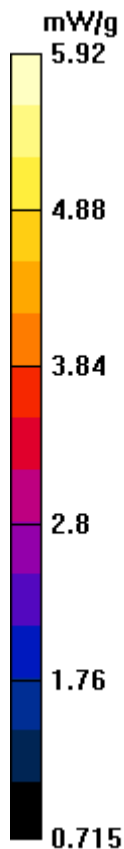
Measurement grid: dx=5mm, dy=5mm, dz=5mm

Peak SAR (extrapolated) = 9.21 W/kg

SAR(1 g) = 5.06 mW/g; SAR(10 g) = 3.31 mW/g

Reference Value = 75.2 V/m

Power Drift = -0.13 dB



Date Tested: 10/16/03

DUT: EF Johnson; Model: 242-5180; Type: FM PTT Portable Radio Transceiver (806-869MHz); Serial: 51830A103A 16525
Body-worn Accessories: Belt-Clip (1.3 cm thickness), Speaker-Microphone

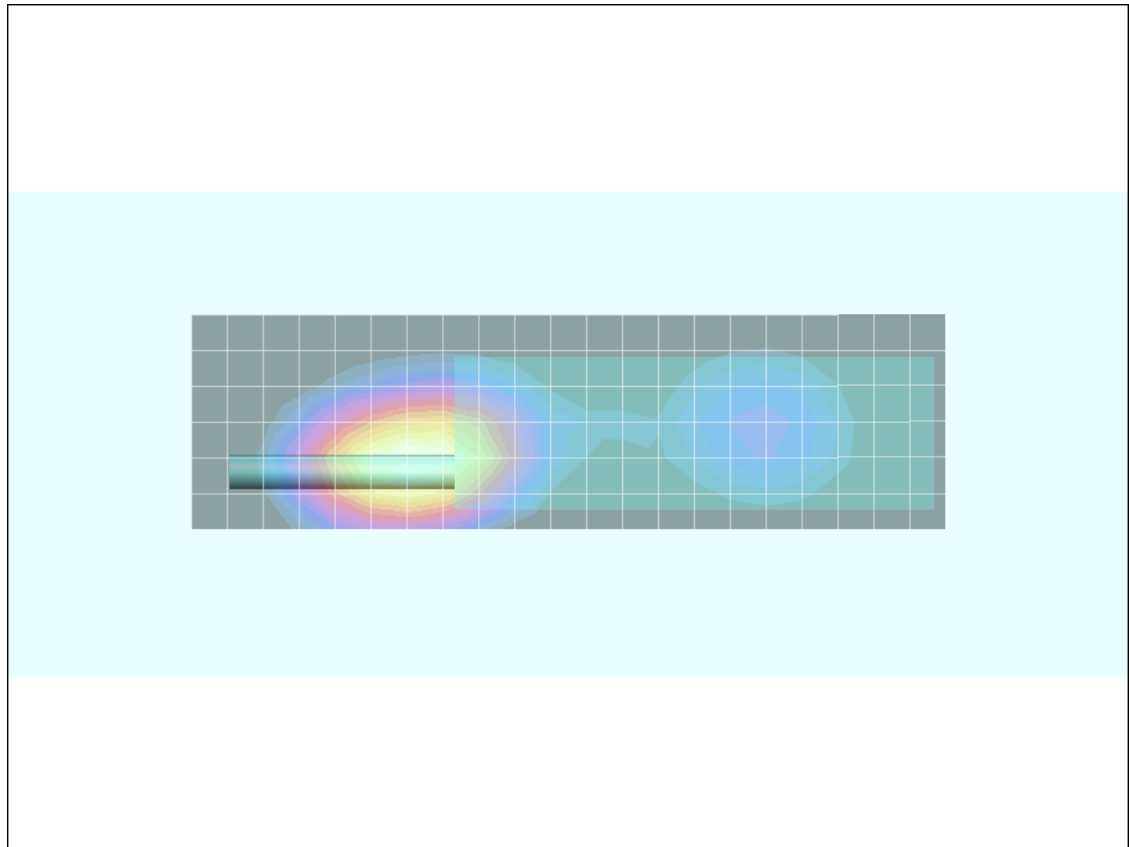
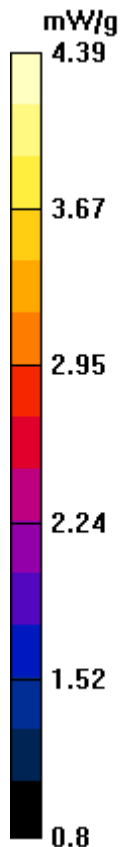
Ambient Temp: 20.4°C; Fluid Temp: 20.2°C; Barometric Pressure: 101.1 kPa; Humidity: 54%

Communication System: 800MHz FM
 Conducted Output Power: 3.46 Watts
 Frequency: 860.0125 MHz; Duty Cycle: 1:1
 Medium: M835 ($\sigma = 1.01$ mho/m, $\epsilon_r = 54.7$, $\rho = 1000$ kg/m³)

- Probe: ET3DV6 - SN1387; ConvF(6.4, 6.4, 6.4); Calibrated: 26/02/2003
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn370; Calibrated: 19/05/2003
- Phantom: Planar; Type: Plexiglas; Serial: 161
- Measurement SW: DASY4, V4.1 Build 47; Postprocessing SW: SEMCAD, V1.6 Build 116

Body-Worn - Alkaline Battery Pack - Stubby Antenna - High-Band Mid-Channel/Area Scan (7x22x1):
 Measurement grid: dx=15mm, dy=15mm

Body-Worn - Alkaline Battery Pack - Stubby Antenna - High-Band Mid-Channel/Zoom Scan (7x7x7)/Cube 0:
 Measurement grid: dx=5mm, dy=5mm, dz=5mm
 Peak SAR (extrapolated) = 6.55 W/kg
SAR(1 g) = 4.16 mW/g; SAR(10 g) = 2.97 mW/g
 Reference Value = 64.4 V/m
 Power Drift = -0.14 dB



Date Tested: 10/16/03

DUT: EF Johnson; Model: 242-5180; Type: FM PTT Speaker-Microphone with Antenna (806-869MHz); Serial: V2-100230237
Body-worn Accessory: 1.2 cm Lapel-Clip

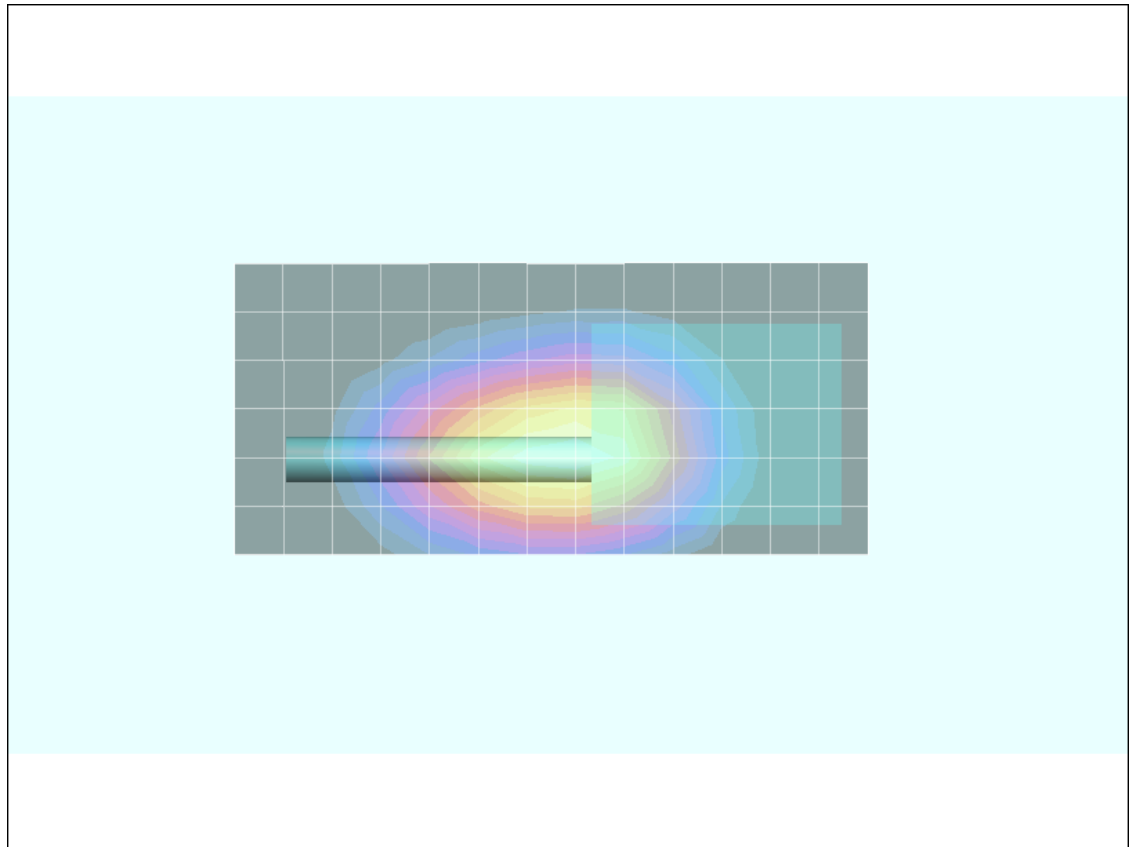
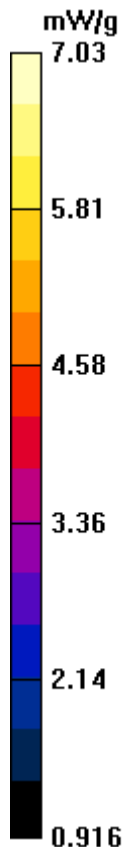
Ambient Temp: 20.4°C; Fluid Temp: 20.2°C; Barometric Pressure: 101.1 kPa; Humidity: 54%

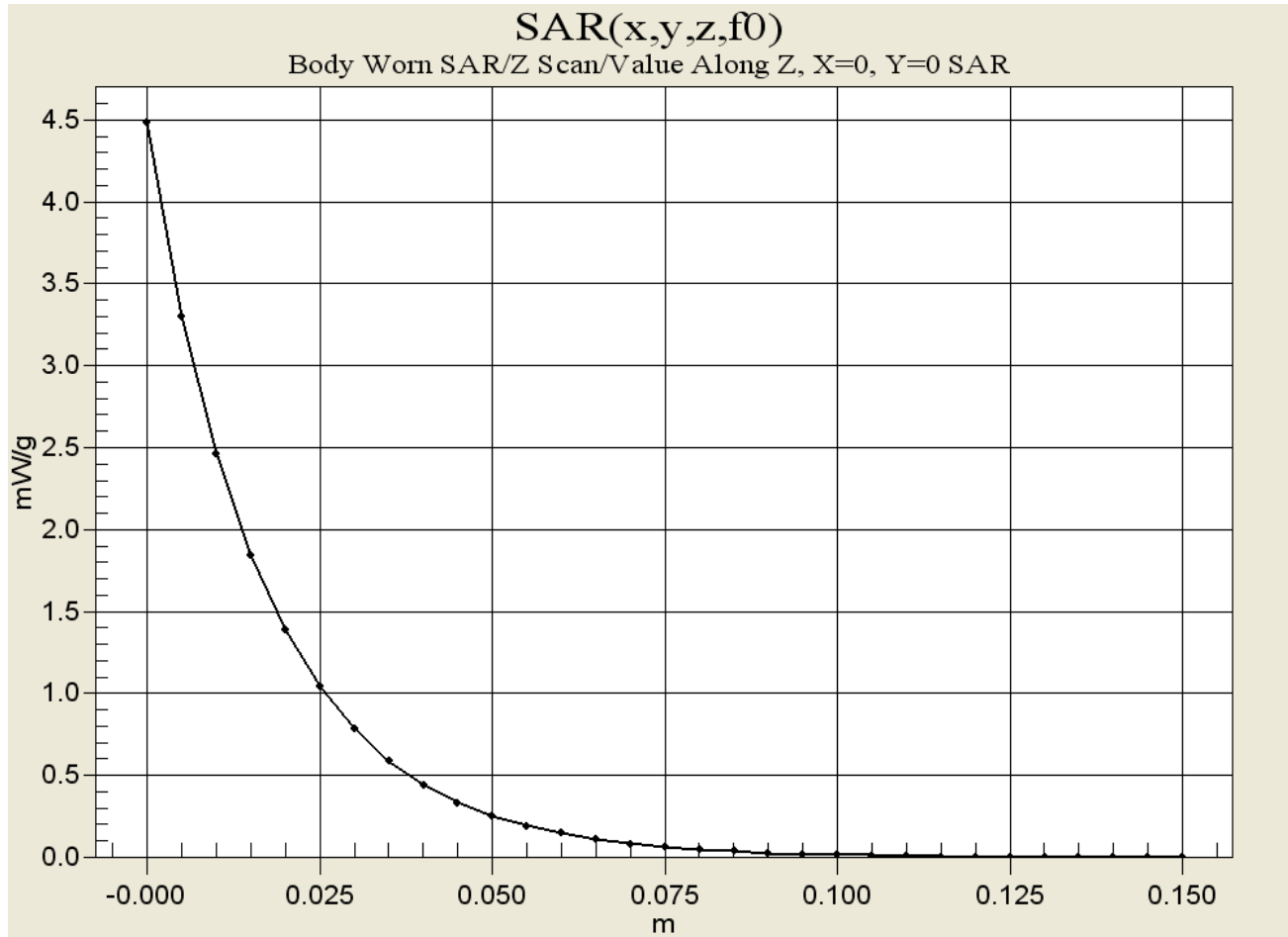
Communication System: 800MHz FM
Conducted Output Power: 3.46 Watts
Frequency: 815.0125 MHz; Duty Cycle: 1:1
Medium: M835 ($\sigma = 1.01$ mho/m, $\epsilon_r = 54.7$, $\rho = 1000$ kg/m³)

- Probe: ET3DV6 - SN1387; ConvF(6.4, 6.4, 6.4); Calibrated: 26/02/2003
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn370; Calibrated: 19/05/2003
- Phantom: Planar; Type: Plexiglas; Serial: 161
- Measurement SW: DASY4, V4.1 Build 47; Postprocessing SW: SEMCAD, V1.6 Build 116

Body-Worn - NiMH Battery - Stubby Antenna - Low-Band Mid-Channel/Area Scan (7x14x1):
Measurement grid: dx=15mm, dy=15mm

Body-Worn - NiMH Battery - Stubby Antenna - Low-Band Mid-Channel/Zoom Scan (7x7x7)/Cube 0:
Measurement grid: dx=5mm, dy=5mm, dz=5mm
Peak SAR (extrapolated) = 8.66 W/kg
SAR(1 g) = 6.52 mW/g; SAR(10 g) = 4.64 mW/g
Reference Value = 88.4 V/m
Power Drift = -0.30 dB





Date Tested: 10/16/03

DUT: EF Johnson; Model: 242-5180; Type: FM PTT Speaker-Microphone with Antenna (806-869MHz); Serial: V2-100230237
Body-worn Accessory: 1.2 cm Lapel-Clip

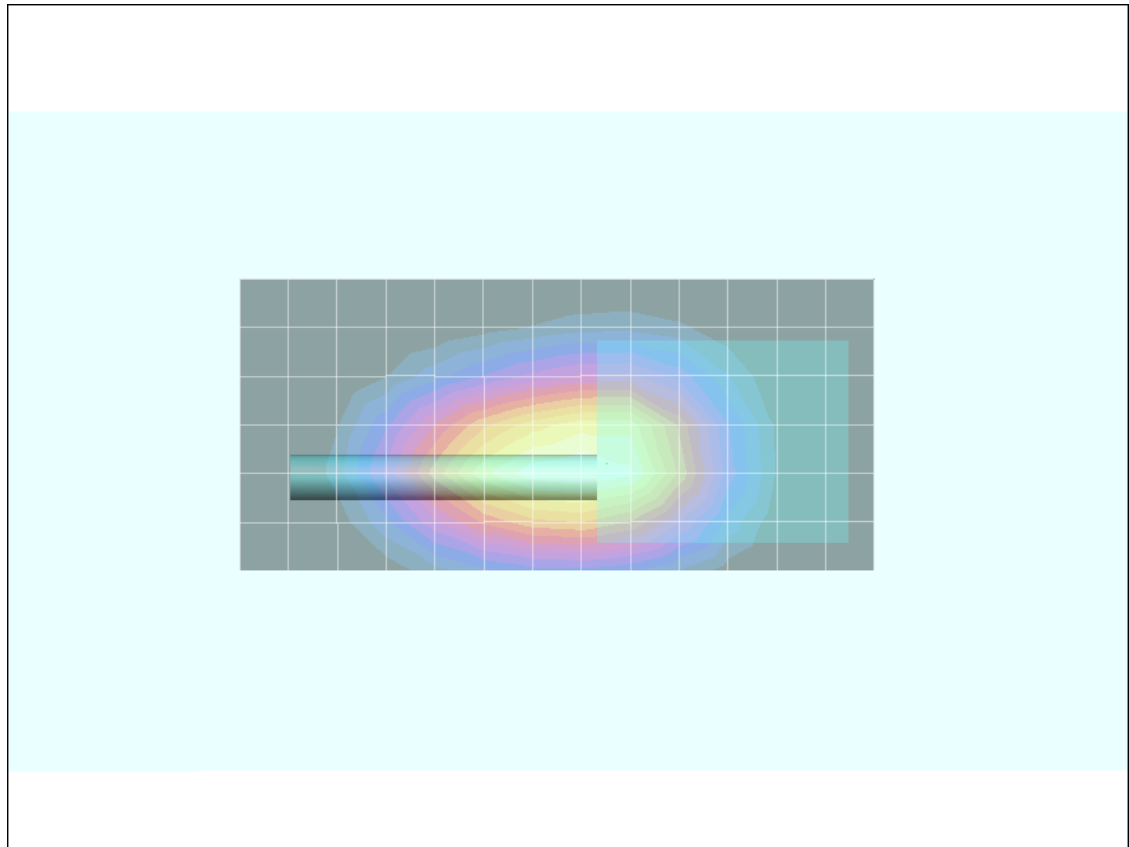
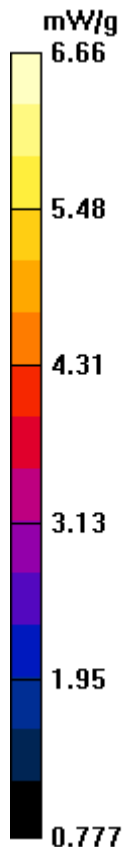
Ambient Temp: 20.4°C; Fluid Temp: 20.2°C; Barometric Pressure: 101.1 kPa; Humidity: 54%

Communication System: 800MHz FM
Conducted Output Power: 3.38 Watts
Frequency: 860.0125 MHz; Duty Cycle: 1:1
Medium: M835 ($\sigma = 1.01$ mho/m, $\epsilon_r = 54.7$, $\rho = 1000$ kg/m³)

- Probe: ET3DV6 - SN1387; ConvF(6.4, 6.4, 6.4); Calibrated: 26/02/2003
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn370; Calibrated: 19/05/2003
- Phantom: Planar; Type: Plexiglas; Serial: 161
- Measurement SW: DASY4, V4.1 Build 47; Postprocessing SW: SEMCAD, V1.6 Build 116

Body-Worn - NiMH Battery - Stubby Antenna - High-Band Mid-Channel/Area Scan (7x14x1):
Measurement grid: dx=15mm, dy=15mm

Body-Worn - NiMH Battery - Stubby Antenna - High-Band Mid-Channel/Zoom Scan (7x7x7)/Cube 0:
Measurement grid: dx=5mm, dy=5mm, dz=5mm
Peak SAR (extrapolated) = 8.41 W/kg
SAR(1 g) = 6.31 mW/g; SAR(10 g) = 4.47 mW/g
Reference Value = 83.6 V/m
Power Drift = -0.14 dB



Date Tested: 10/17/03

DUT: EF Johnson; Model: 242-5180; Type: FM PTT Portable Radio Transceiver (806-869MHz); Serial: 51830A103A 16525
Body-worn Accessories: Belt-Clip (1.3 cm thickness), Speaker-Microphone

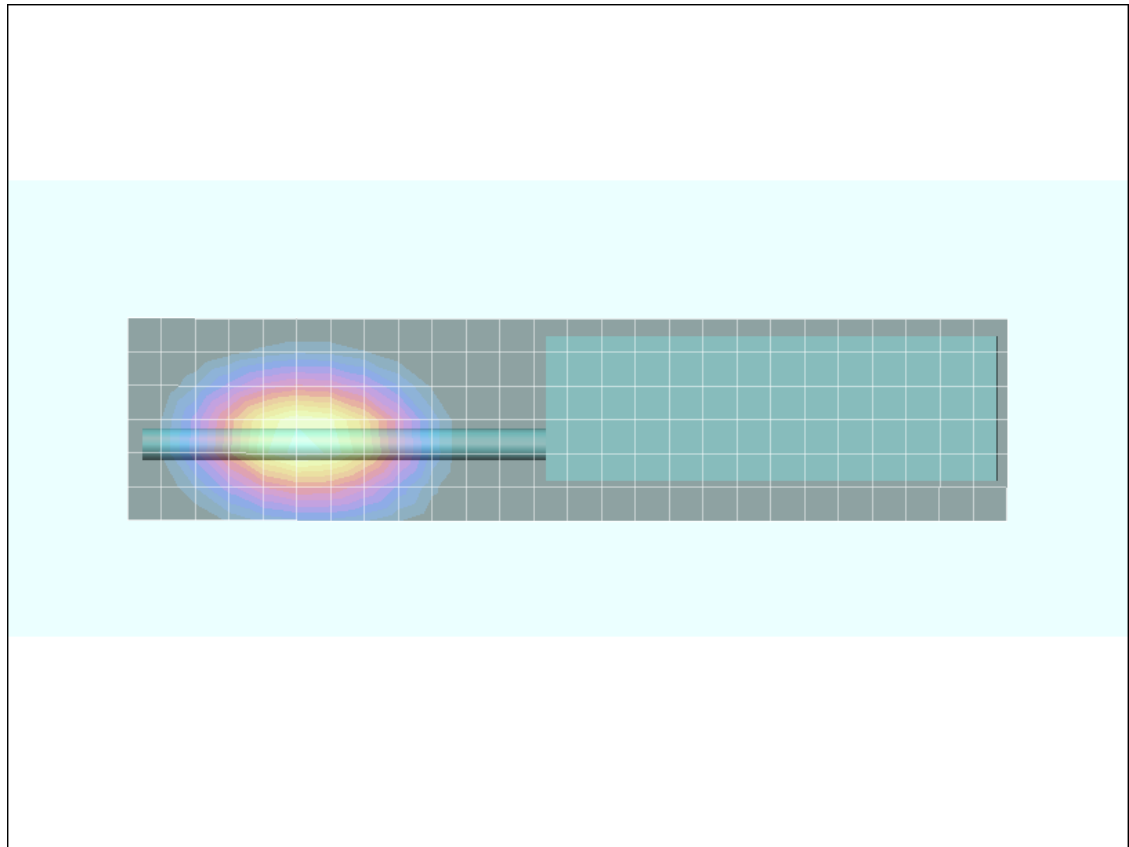
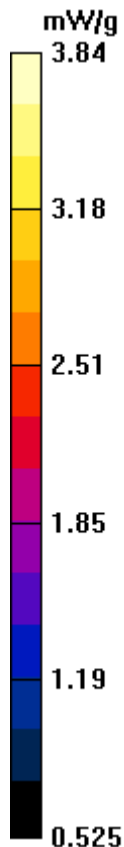
Ambient Temp: 20.7°C; Fluid Temp: 21.3°C Barometric Pressure: 101.0 kPa; Humidity: 64%

Communication System: 800MHz FM
 Conducted Output Power: 3.39 Watts
 Frequency: 815.0125 MHz; Duty Cycle: 1:1
 Medium: M835 ($\sigma = 1.01$ mho/m, $\epsilon_r = 54.9$, $\rho = 1000$ kg/m³)

- Probe: ET3DV6 - SN1387; ConvF(6.4, 6.4, 6.4); Calibrated: 26/02/2003
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn370; Calibrated: 19/05/2003
- Phantom: Planar; Type: Plexiglas; Serial: 161
- Measurement SW: DASY4, V4.1 Build 47; Postprocessing SW: SEMCAD, V1.6 Build 116

Body-Worn - Alkaline Battery Pack - Whip Antenna - Low-Band Mid-Channel/Area Scan (7x27x1):
 Measurement grid: dx=15mm, dy=15mm

Body-Worn - Alkaline Battery Pack - Whip Antenna - Low-Band Mid-Channel/Zoom Scan (7x7x7)/Cube 0:
 Measurement grid: dx=5mm, dy=5mm, dz=5mm
 Peak SAR (extrapolated) = 4.72 W/kg
SAR(1 g) = 3.66 mW/g; SAR(10 g) = 2.63 mW/g
 Reference Value = 16.6 V/m
 Power Drift = -0.31 dB



Date Tested: 10/17/03

DUT: EF Johnson; Model: 242-5180; Type: FM PTT Portable Radio Transceiver (806-869MHz); Serial: 51830A103A 16525
Body-worn Accessories: Belt-Clip (1.3 cm thickness), Speaker-Microphone

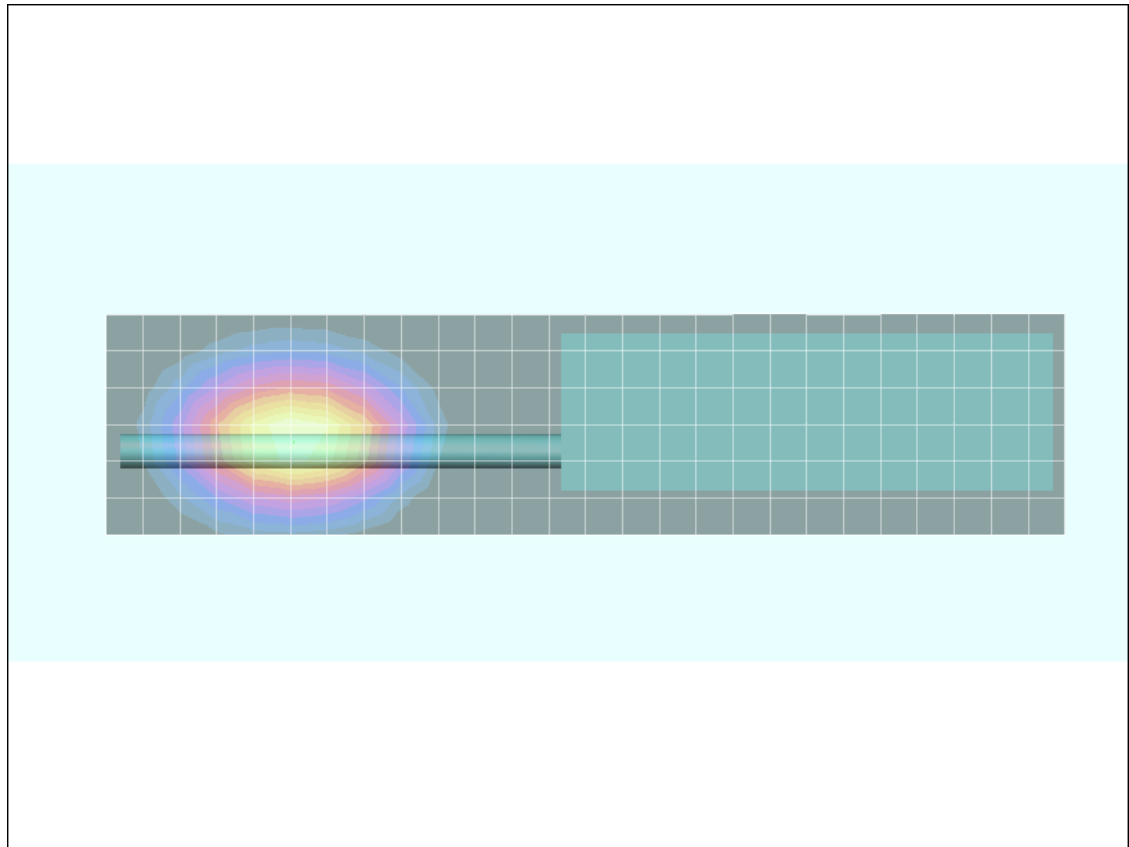
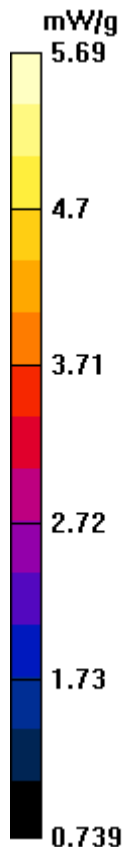
Ambient Temp: 20.7°C; Fluid Temp: 21.3°C; Barometric Pressure: 101.0 kPa; Humidity: 64%

Communication System: 800MHz FM
 Conducted Output Power: 3.45 Watts
 Frequency: 860.0125 MHz; Duty Cycle: 1:1
 Medium: M835 ($\sigma = 1.01$ mho/m, $\epsilon_r = 54.9$, $\rho = 1000$ kg/m³)

- Probe: ET3DV6 - SN1387; ConvF(6.4, 6.4, 6.4); Calibrated: 26/02/2003
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn370; Calibrated: 19/05/2003
- Phantom: Planar; Type: Plexiglas; Serial: 161
- Measurement SW: DASY4, V4.1 Build 47; Postprocessing SW: SEMCAD, V1.6 Build 116

Body-Worn - Alkaline Battery Pack - Whip Antenna - High-Band Mid-Channel/Area Scan (7x27x1):
 Measurement grid: dx=15mm, dy=15mm

Body-Worn - Alkaline Battery Pack - Whip Antenna - High-Band Mid-Channel/Zoom Scan (7x7x7)/Cube 0:
 Measurement grid: dx=5mm, dy=5mm, dz=5mm
 Peak SAR (extrapolated) = 7.07 W/kg
SAR(1 g) = 5.36 mW/g; SAR(10 g) = 3.8 mW/g
 Reference Value = 21.1 V/m
 Power Drift = -0.15 dB



Date Tested: 10/17/03

DUT: EF Johnson; Model: 242-5180; Type: FM PTT Portable Radio Transceiver (806-869MHz); Serial: 51830A103A 16525
Body-worn Accessories: Belt-Clip (1.3 cm thickness), Boom-Microphone Headset

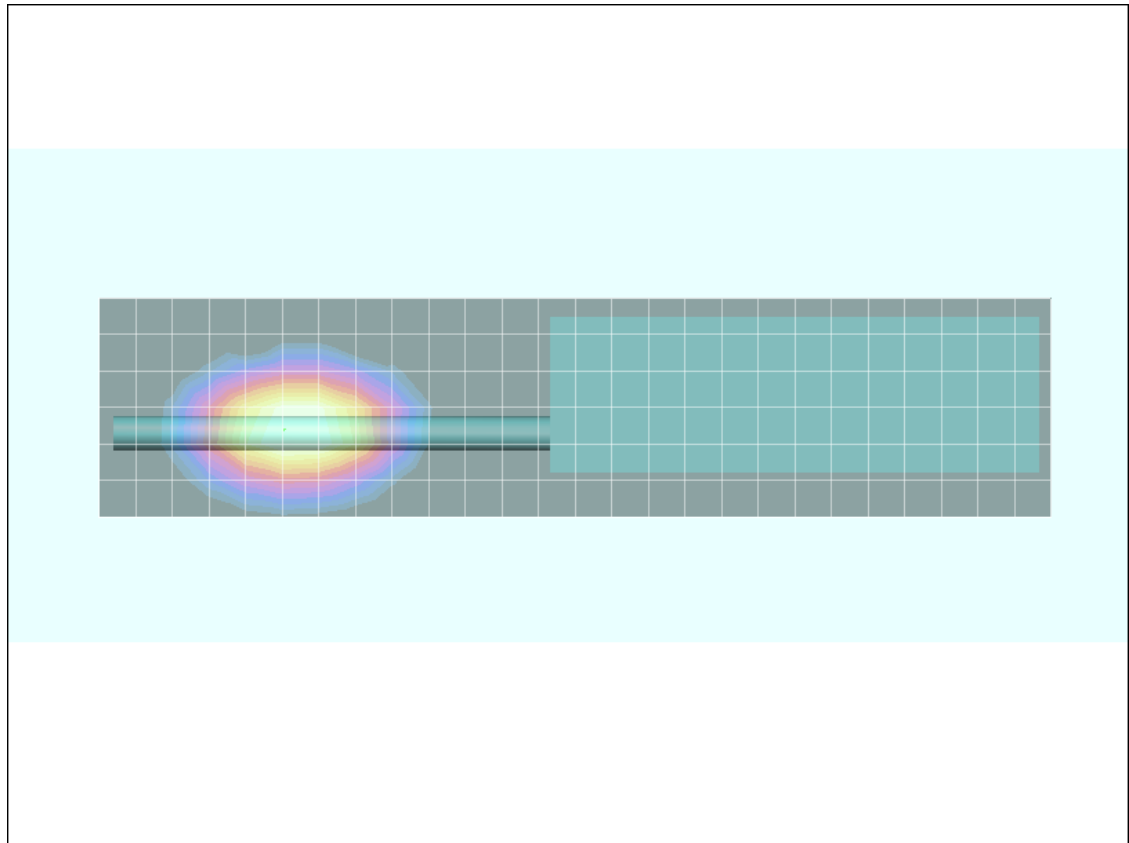
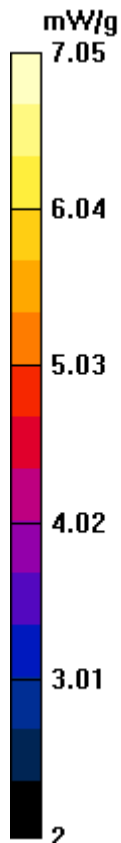
Ambient Temp: 20.7°C; Fluid Temp: 21.3°C Barometric Pressure: 101.0 kPa; Humidity: 64%

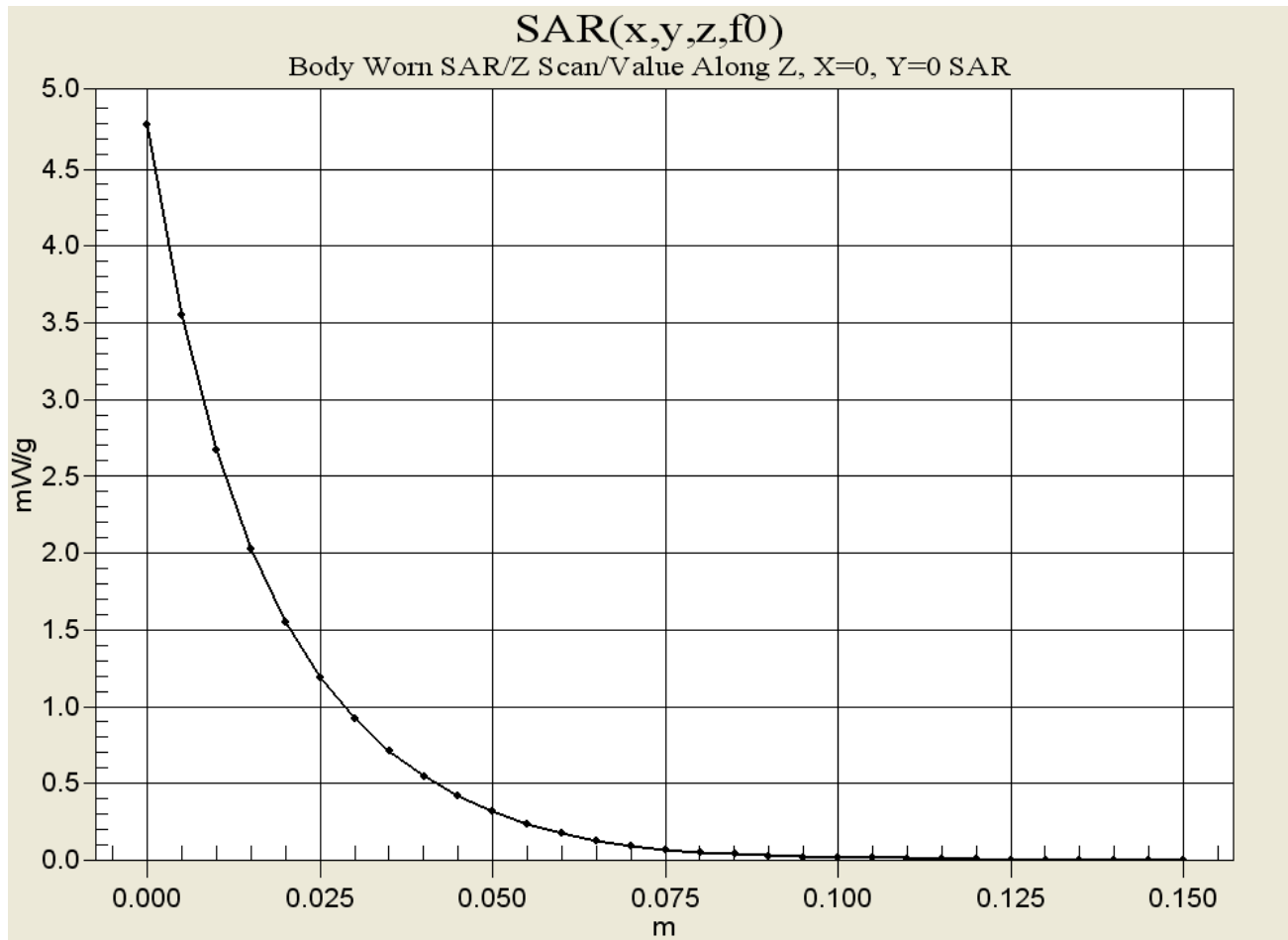
Communication System: 800MHz FM
 Conducted Output Power: 3.42 Watts
 Frequency: 815.0125 MHz; Duty Cycle: 1:1
 Medium: M835 ($\sigma = 1.01$ mho/m, $\epsilon_r = 54.9$, $\rho = 1000$ kg/m³)

- Probe: ET3DV6 - SN1387; ConvF(6.4, 6.4, 6.4); Calibrated: 26/02/2003
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn370; Calibrated: 19/05/2003
- Phantom: Planar; Type: Plexiglas; Serial: 161
- Measurement SW: DASY4, V4.1 Build 47; Postprocessing SW: SEMCAD, V1.6 Build 116

Body-Worn - Alkaline Battery Pack - Whip Antenna - Low-Band Mid-Channel/Area Scan (7x27x1):
 Measurement grid: dx=15mm, dy=15mm

Body-Worn - Alkaline Battery Pack - Whip Antenna - Low-Band Mid-Channel/Zoom Scan (7x7x7)/Cube 0:
 Measurement grid: dx=5mm, dy=5mm, dz=5mm
 Peak SAR (extrapolated) = 8.71 W/kg
SAR(1 g) = 6.7 mW/g; SAR(10 g) = 4.83 mW/g
 Reference Value = 14 V/m
 Power Drift = -0.23 dB





Date Tested: 10/17/03

DUT: EF Johnson; Model: 242-5180; Type: FM PTT Portable Radio Transceiver (806-869MHz); Serial: 51830A103A 16525
Body-worn Accessories: Belt-Clip (1.3 cm thickness), Boom-Microphone Headset

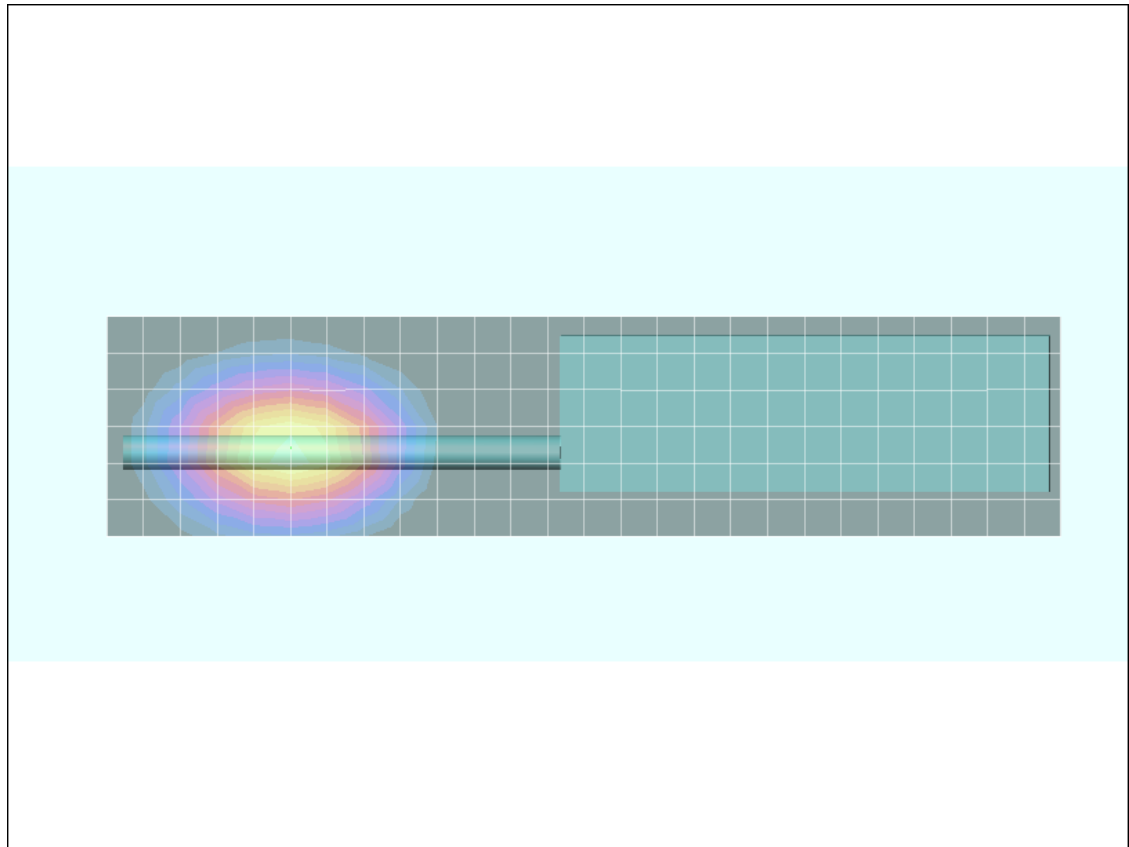
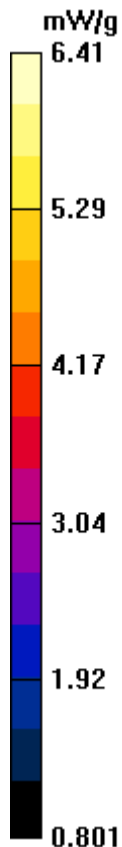
Ambient Temp: 20.7°C; Fluid Temp: 21.3°C; Barometric Pressure: 101.0 kPa; Humidity: 64%

Communication System: 800MHz FM
 Conducted Output Power: 3.44 Watts
 Frequency: 860.0125 MHz; Duty Cycle: 1:1
 Medium: M835 ($\sigma = 1.01$ mho/m, $\epsilon_r = 54.9$, $\rho = 1000$ kg/m³)

- Probe: ET3DV6 - SN1387; ConvF(6.4, 6.4, 6.4); Calibrated: 26/02/2003
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn370; Calibrated: 19/05/2003
- Phantom: Planar; Type: Plexiglas; Serial: 161
- Measurement SW: DASY4, V4.1 Build 47; Postprocessing SW: SEMCAD, V1.6 Build 116

Body-Worn - Alkaline Battery Pack - Whip Antenna - High-Band Mid-Channel/Area Scan (7x27x1):
 Measurement grid: dx=15mm, dy=15mm

Body-Worn - Alkaline Battery Pack - Whip Antenna - High-Band Mid-Channel/Zoom Scan (7x7x7)/Cube 0:
 Measurement grid: dx=5mm, dy=5mm, dz=5mm
 Peak SAR (extrapolated) = 7.96 W/kg
SAR(1 g) = 6.04 mW/g; SAR(10 g) = 4.27 mW/g
 Reference Value = 18.5 V/m
 Power Drift = -0.14 dB



Date Tested: 10/20/03

DUT: EF Johnson; Model: 242-5180; Type: FM PTT Portable Radio Transceiver (806-869MHz); Serial: 51830A103A 16525

Ambient Temp: 20.0°C; Fluid Temp: 22.0°C; Barometric Pressure: 101.4 kPa; Humidity: 62%

Communication System: 800MHz FM

Conducted Output Power: 3.42 Watts

Frequency: 815.0125 MHz; Duty Cycle: 1:1

Medium: HSL835 ($\sigma = 0.93 \text{ mho/m}$, $\epsilon_r = 42.1$, $\rho = 1000 \text{ kg/m}^3$)

- Probe: ET3DV6 - SN1387; ConvF(6.6, 6.6, 6.6); Calibrated: 26/02/2003
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn370; Calibrated: 19/05/2003
- Phantom: Planar; Type: Plexiglas; Serial: 161
- Measurement SW: DASY4, V4.1 Build 47; Postprocessing SW: SEMCAD, V1.6 Build 116

Face-Held - NiMH Battery - Stubby Antenna - Low-Band Mid-Channel/Area Scan (7x20x1):

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

Face-Held - NiMH Battery - Stubby Antenna - Low-Band Mid-Channel /Zoom Scan (7x7x7)/Cube 0:

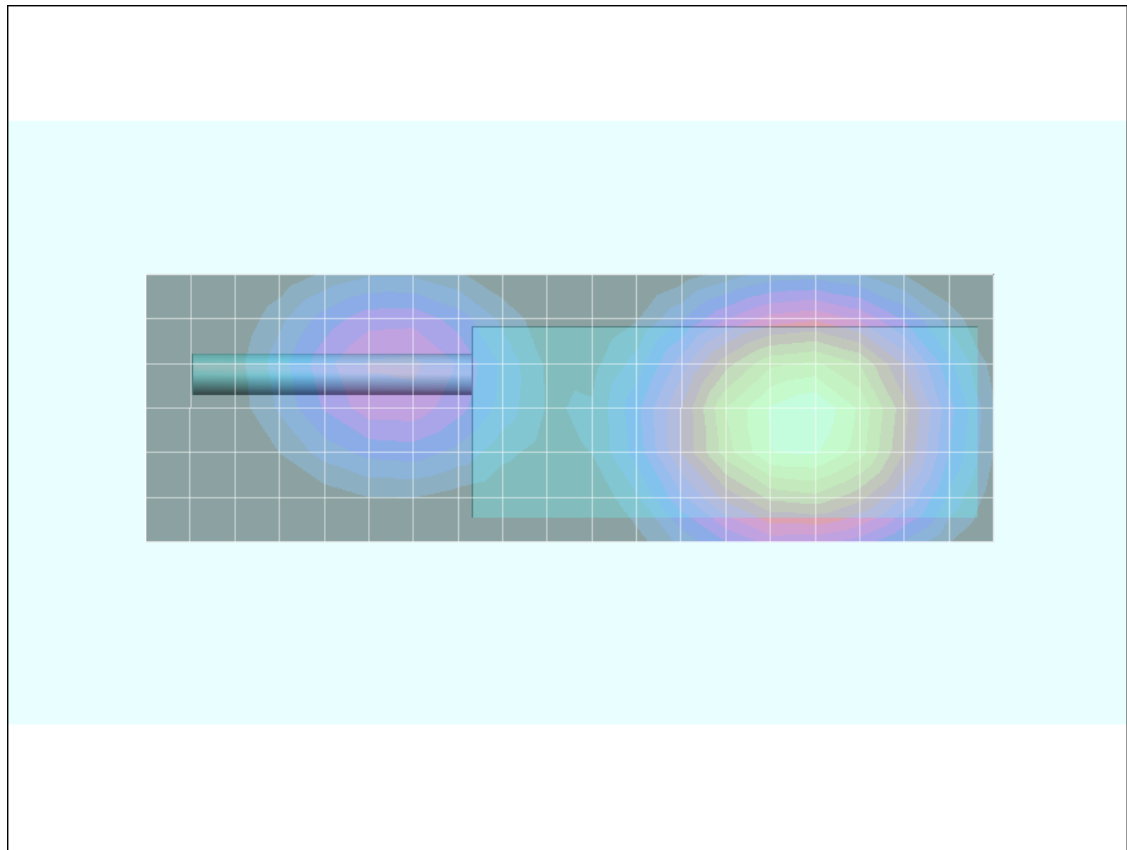
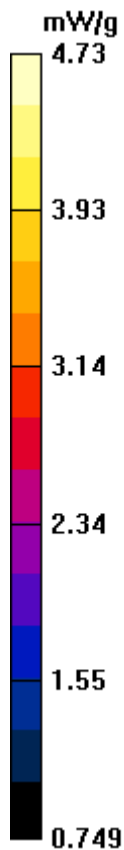
Measurement grid: dx=5mm, dy=5mm, dz=5mm

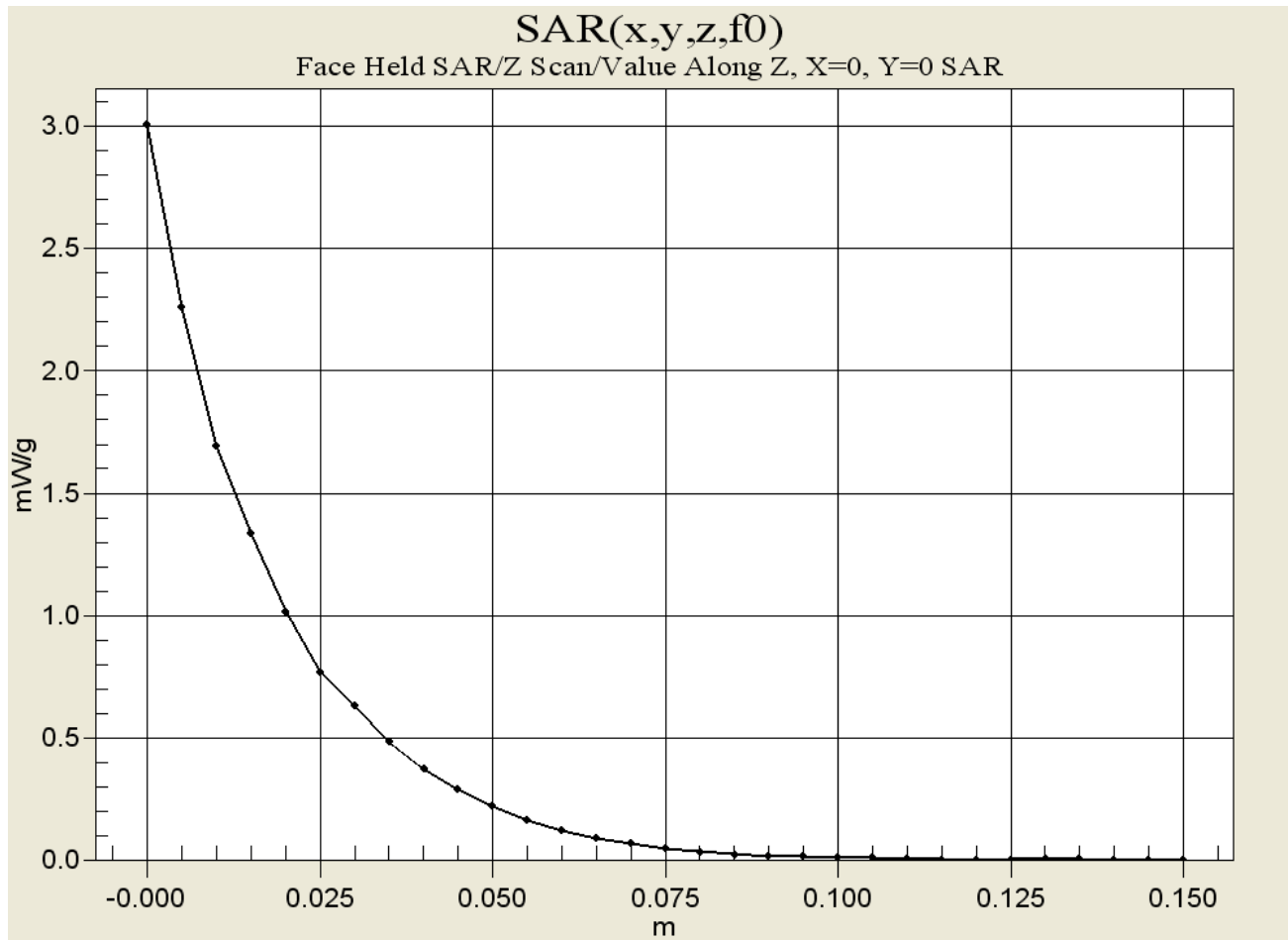
Peak SAR (extrapolated) = 5.81 W/kg

SAR(1 g) = 4.51 mW/g; SAR(10 g) = 3.32 mW/g

Reference Value = 45.9 V/m

Power Drift = -0.38 dB





Date Tested: 10/20/03

DUT: EF Johnson; Model: 242-5180; FM PTT Portable Radio Transceiver (806-869MHz); Serial: 51830A103A 16525
Ambient Temp: 20.0°C; Fluid Temp: 22.0°C; Barometric Pressure: 101.4 kPa; Humidity: 62%

Communication System: 800MHz FM
Conducted Output Power: 3.43 Watts
Frequency: 860.0125 MHz; Duty Cycle: 1:1
Medium: HSL835 ($\sigma = 0.93 \text{ mho/m}$, $\epsilon_r = 42.1$, $\rho = 1000 \text{ kg/m}^3$)
- Probe: ET3DV6 - SN1387; ConvF(6.6, 6.6, 6.6); Calibrated: 26/02/2003
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn370; Calibrated: 19/05/2003
- Phantom: Planar; Type: Plexiglas; Serial: 161
- Measurement SW: DASY4, V4.1 Build 47; Postprocessing SW: SEMCAD, V1.6 Build 116

Face-Held - NiMH Battery - Stubby Antenna - High-Band Mid-Channel/Area Scan (7x20x1):

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

Face-Held - NiMH Battery - Stubby Antenna - High-Band Mid-Channel/Zoom Scan (7x7x7)/Cube 0:

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

Peak SAR (extrapolated) = 4.55 W/kg

SAR(1 g) = 3.52 mW/g; SAR(10 g) = 2.57 mW/g

Reference Value = 46.1 V/m

Power Drift = -0.13 dB

Face-Held - NiMH Battery - Stubby Antenna - High-Band Mid-Channel/Zoom Scan (7x7x7)/Cube 1:

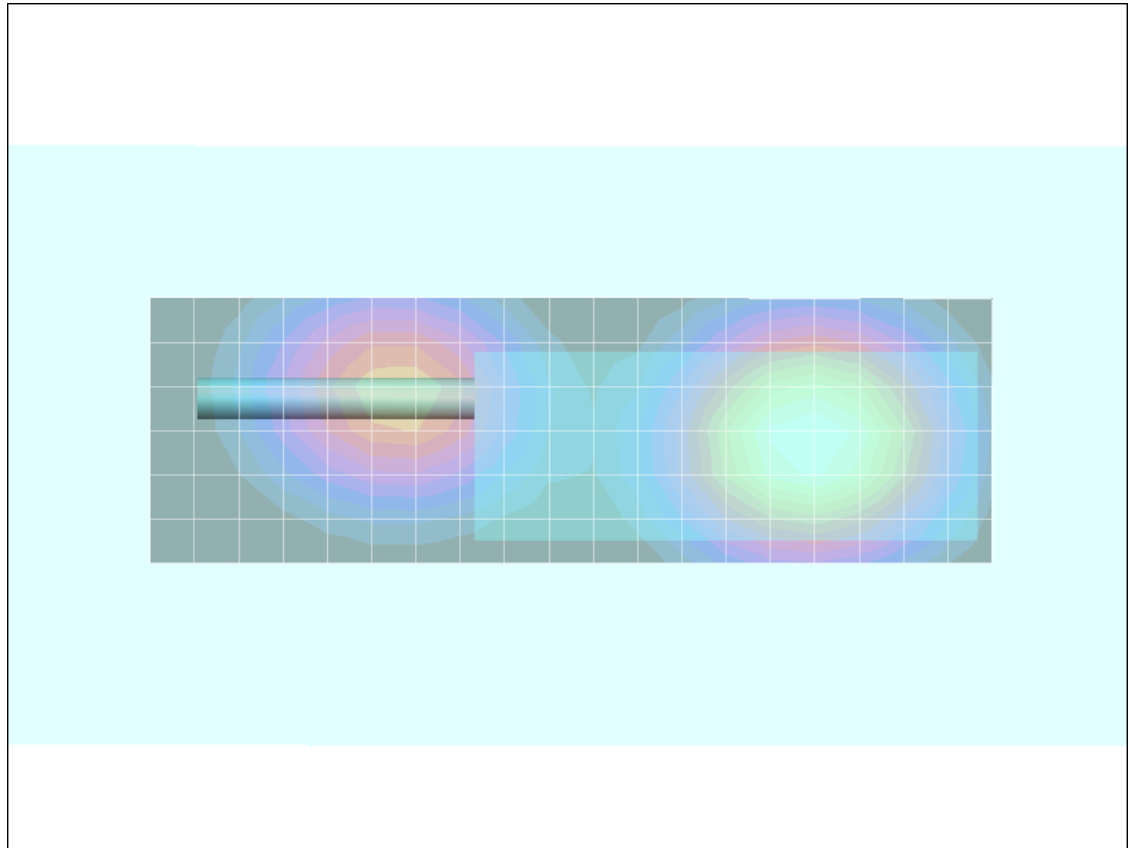
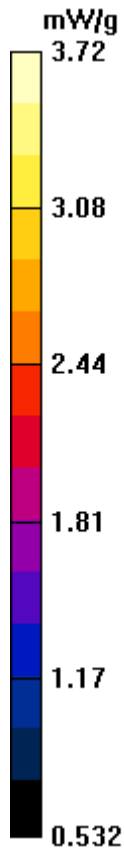
Measurement grid: dx=5mm, dy=5mm, dz=5mm

Peak SAR (extrapolated) = 3.46 W/kg

SAR(1 g) = 2.59 mW/g; SAR(10 g) = 1.86 mW/g

Reference Value = 46.1 V/m

Power Drift = -0.13 dB



Date/Time: 10/20/03

DUT: EF Johnson; Model: 242-5180; Type: FM PTT Portable Radio Transceiver (806-869MHz); Serial: 51830A103A 16525
Ambient Temp: 20.0°C; Fluid Temp: 22.0°C; Barometric Pressure: 101.4 kPa; Humidity: 62%

Communication System: 800MHz FM
Conducted Output Power: 3.41 Watts
Frequency: 815.0125 MHz; Duty Cycle: 1:1
Medium: HSL835 ($\sigma = 0.93$ mho/m, $\epsilon_r = 42.1$, $\rho = 1000$ kg/m³)
- Probe: ET3DV6 - SN1387; ConvF(6.6, 6.6, 6.6); Calibrated: 26/02/2003
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn370; Calibrated: 19/05/2003
- Phantom: Planar; Type: Plexiglas; Serial: 161
- Measurement SW: DASY4, V4.1 Build 47; Postprocessing SW: SEMCAD, V1.6 Build 116

Face-Held - Alkaline Battery Pack - Stubby Antenna - Low-Band Mid-Channel/Area Scan 2 (7x22x1):

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

Face-Held - Alkaline Battery Pack - Stubby Antenna - Low-Band Mid-Channel/Zoom Scan (7x7x7)/Cube 0:

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

Peak SAR (extrapolated) = 5.17 W/kg

SAR(1 g) = 3.99 mW/g; SAR(10 g) = 2.96 mW/g

Reference Value = 49.9 V/m

Power Drift = -0.36 dB

Face-Held - Alkaline Battery Pack - Stubby Antenna - Low-Band Mid-Channel/Zoom Scan (7x7x7)/Cube 1:

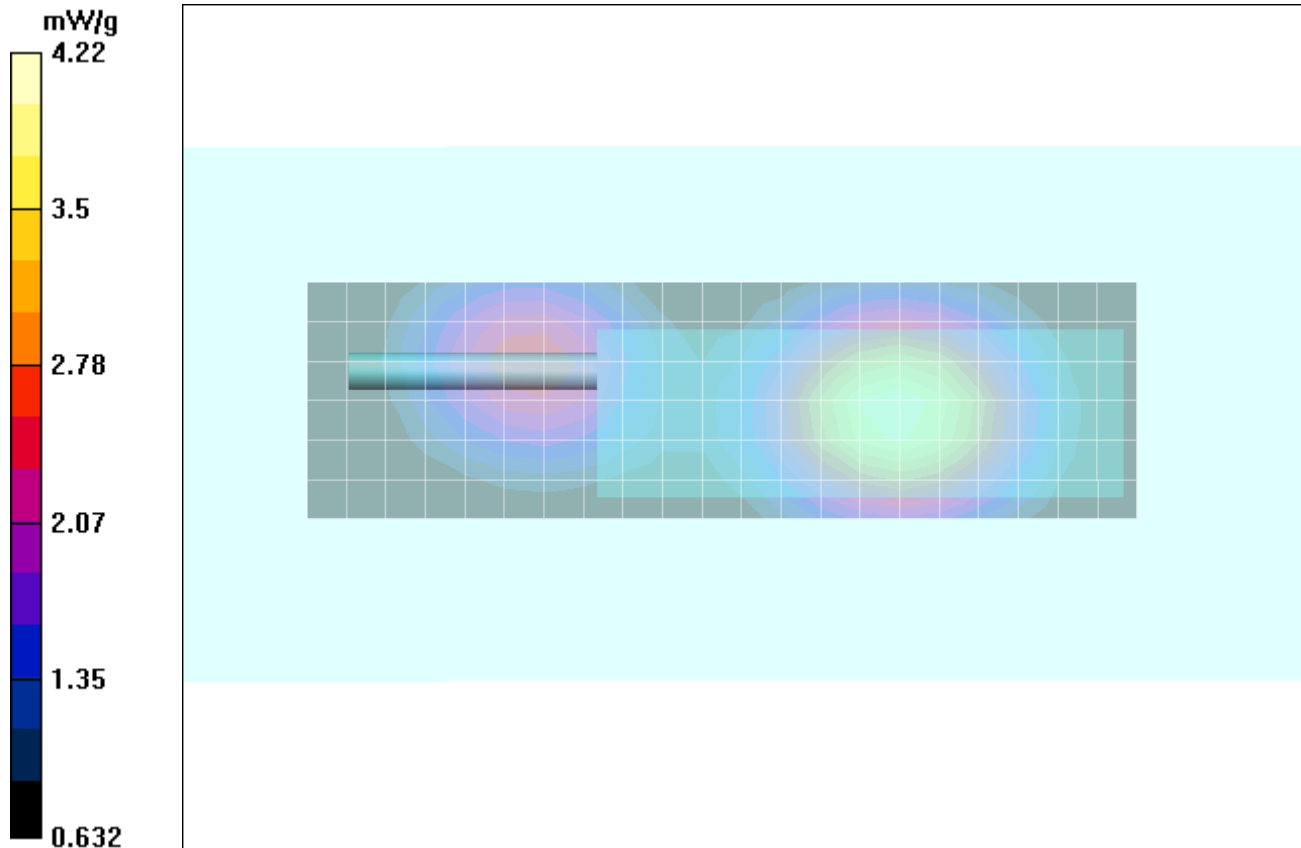
Measurement grid: dx=5mm, dy=5mm, dz=5mm

Peak SAR (extrapolated) = 3.32 W/kg

SAR(1 g) = 2.52 mW/g; SAR(10 g) = 1.83 mW/g

Reference Value = 49.9 V/m

Power Drift = -0.36 dB



Date Tested: 10/20/03

DUT: EF Johnson; Model: 242-5180; Type: FM PTT Portable Radio Transceiver (806-869MHz); Serial: 51830A103A 16525
Ambient Temp: 20.0°C; Fluid Temp: 22.0°C; Barometric Pressure: 101.4 kPa; Humidity: 62%

Communication System: 800MHz FM
Conducted Output Power: 3.44 Watts
Frequency: 860.0125 MHz; Duty Cycle: 1:1
Medium: HSL835 ($\sigma = 0.93 \text{ mho/m}$, $\epsilon_r = 42.1$, $\rho = 1000 \text{ kg/m}^3$)
- Probe: ET3DV6 - SN1387; ConvF(6.6, 6.6, 6.6); Calibrated: 26/02/2003
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn370; Calibrated: 19/05/2003
- Phantom: Planar; Type Plexiglas; Serial: 161
- Measurement SW: DASY4, V4.1 Build 47; Postprocessing SW: SEMCAD, V1.6 Build 116

Alkaline Battery Pack - Stubby Antenna - High-Band Mid-Channel/Area Scan (7x22x1):

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

Alkaline Battery Pack - Stubby Antenna - High-Band Mid-Channel/Zoom Scan (7x7x7)/Cube 0:

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

Peak SAR (extrapolated) = 3.68 W/kg

SAR(1 g) = 2.84 mW/g; SAR(10 g) = 2.08 mW/g

Reference Value = 48.4 V/m

Power Drift = -0.26 dB

Alkaline Battery Pack - Stubby Antenna - High-Band Mid-Channel/Zoom Scan (7x7x7)/Cube 1:

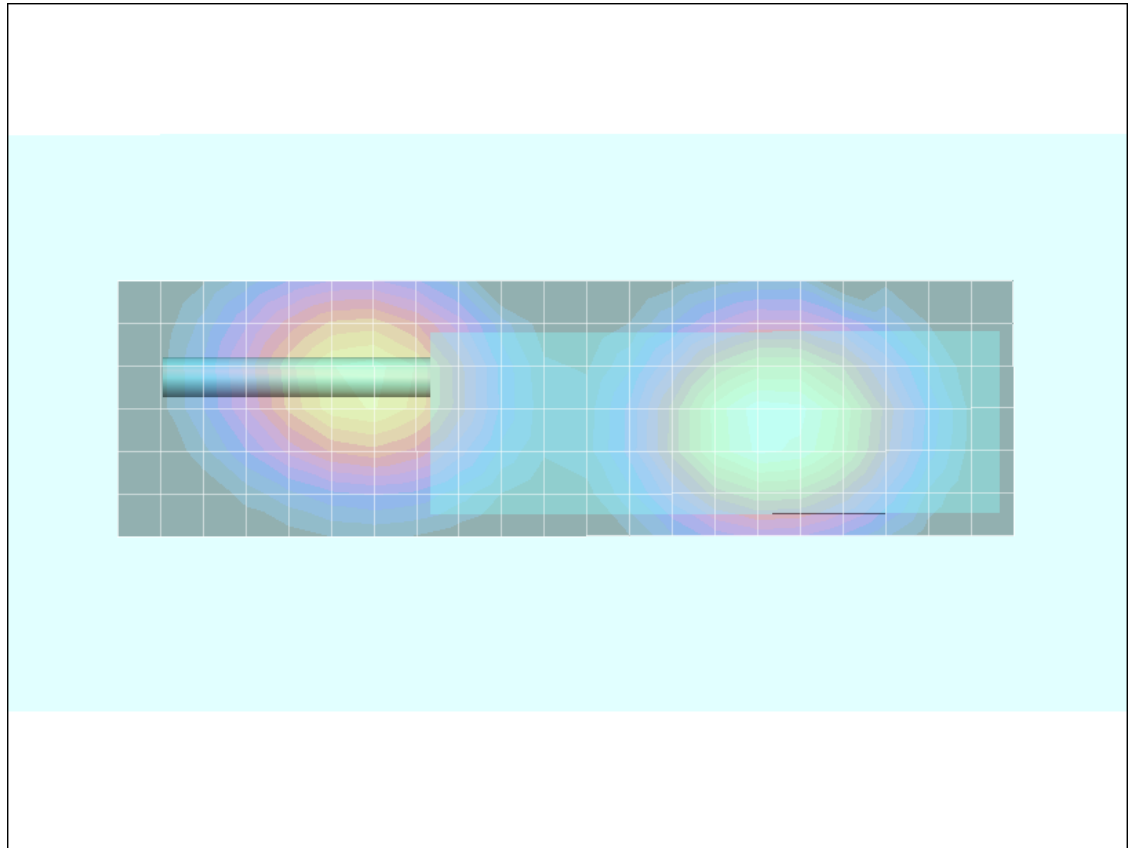
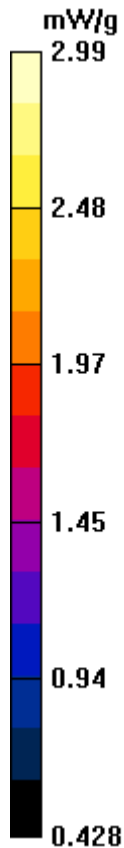
Measurement grid: dx=5mm, dy=5mm, dz=5mm

Peak SAR (extrapolated) = 4.33 W/kg

SAR(1 g) = 2.43 mW/g; SAR(10 g) = 1.74 mW/g

Reference Value = 48.4 V/m

Power Drift = -0.26 dB



Date Tested: 10/20/03

DUT: EF Johnson; Model: 242-5180; Type: FM PTT Portable Radio Transceiver (806-869MHz); Serial: 51830A103A 16525

Ambient Temp: 20.0°C; Fluid Temp: 22.0°C; Barometric Pressure: 101.4 kPa; Humidity: 62%

Communication System: 800MHz FM

Conducted Output Power: 3.43 Watts

Frequency: 815.0125 MHz; Duty Cycle: 1:1

Medium: HSL835 ($\sigma = 0.93$ mho/m, $\epsilon_r = 42.1$, $\rho = 1000$ kg/m³)

- Probe: ET3DV6 - SN1387; ConvF(6.6, 6.6, 6.6); Calibrated: 26/02/2003

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

- Electronics: DAE3 Sn370; Calibrated: 19/05/2003

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

- Measurement SW: DASY4, V4.1 Build 47; Postprocessing SW: SEMCAD, V1.6 Build 116

Face-Held - Alkaline Battery Pack - Whip Antenna - Low-Band Mid-Channel/Area Scan (7x27x1):

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

Face-Held - Alkaline Battery Pack - Whip Antenna - Low-Band Mid-Channel/Zoom Scan (7x7x7)/Cube 0:

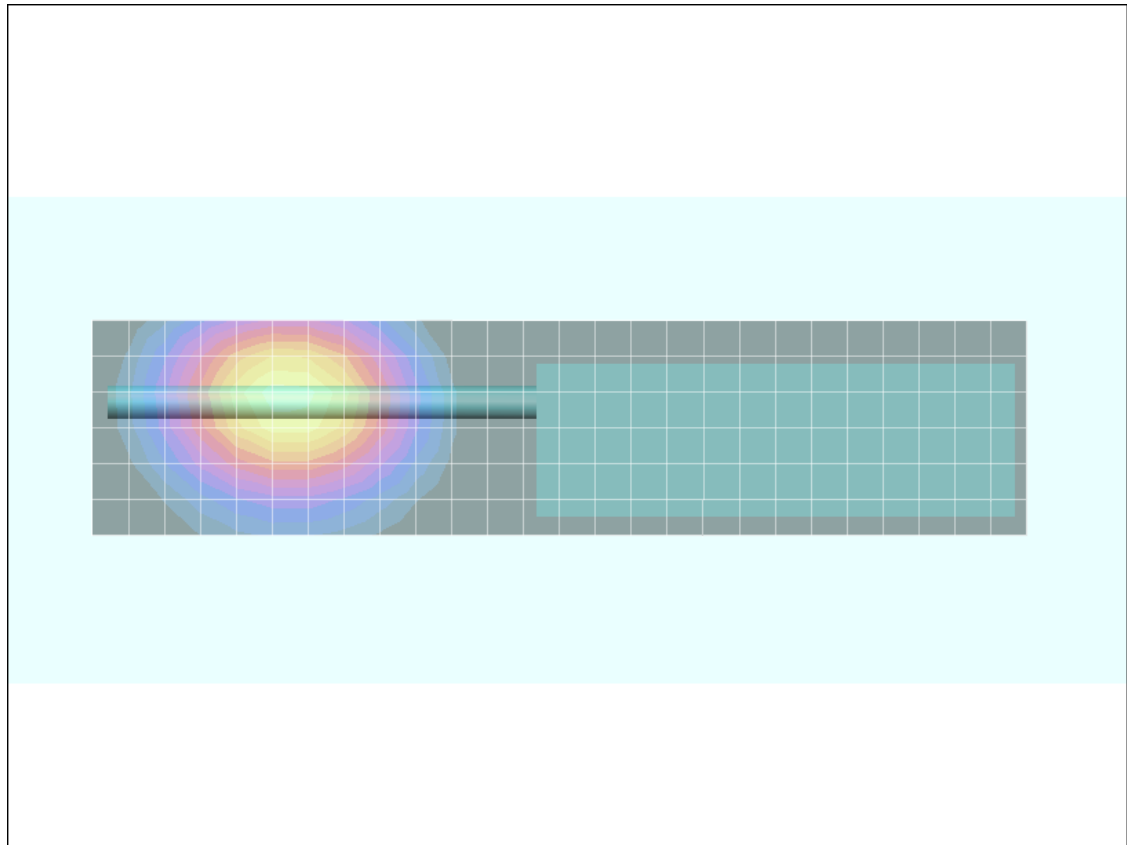
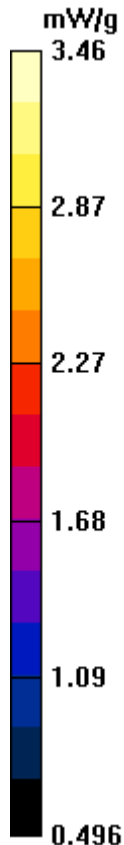
Measurement grid: dx=5mm, dy=5mm, dz=5mm

Peak SAR (extrapolated) = 4.29 W/kg

SAR(1 g) = 3.3 mW/g; SAR(10 g) = 2.41 mW/g

Reference Value = 14.6 V/m

Power Drift = -0.40 dB



Date Tested: 10/20/03

DUT: EF Johnson; Model: 242-5180; Type: FM PTT Portable Radio Transceiver (806-869MHz); Serial: 51830A103A 16525

Ambient Temp: 20.0°C; Fluid Temp: 22.0°C; Barometric Pressure: 101.4 kPa; Humidity: 62%

Communication System: 800MHz FM

Conducted Output Power: 3.46 Watts

Frequency: 860.0125 MHz; Duty Cycle: 1:1

Medium: HSL835 ($\sigma = 0.93 \text{ mho/m}$, $\epsilon_r = 42.1$, $\rho = 1000 \text{ kg/m}^3$)

- Probe: ET3DV6 - SN1387; ConvF(6.6, 6.6, 6.6); Calibrated: 26/02/2003
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn370; Calibrated: 19/05/2003
- Phantom: Planar; Type: Plexiglas; Serial: 161
- Measurement SW: DASY4, V4.1 Build 47; Postprocessing SW: SEMCAD, V1.6 Build 116

Face-Held - Alkaline Battery Pack - Whip Antenna - High-Band Mid-Channel/Area Scan (7x27x1):

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

Face-Held - Alkaline Battery Pack - Whip Antenna - High-Band Mid-Channel/Zoom Scan (7x7x7)/Cube 0:

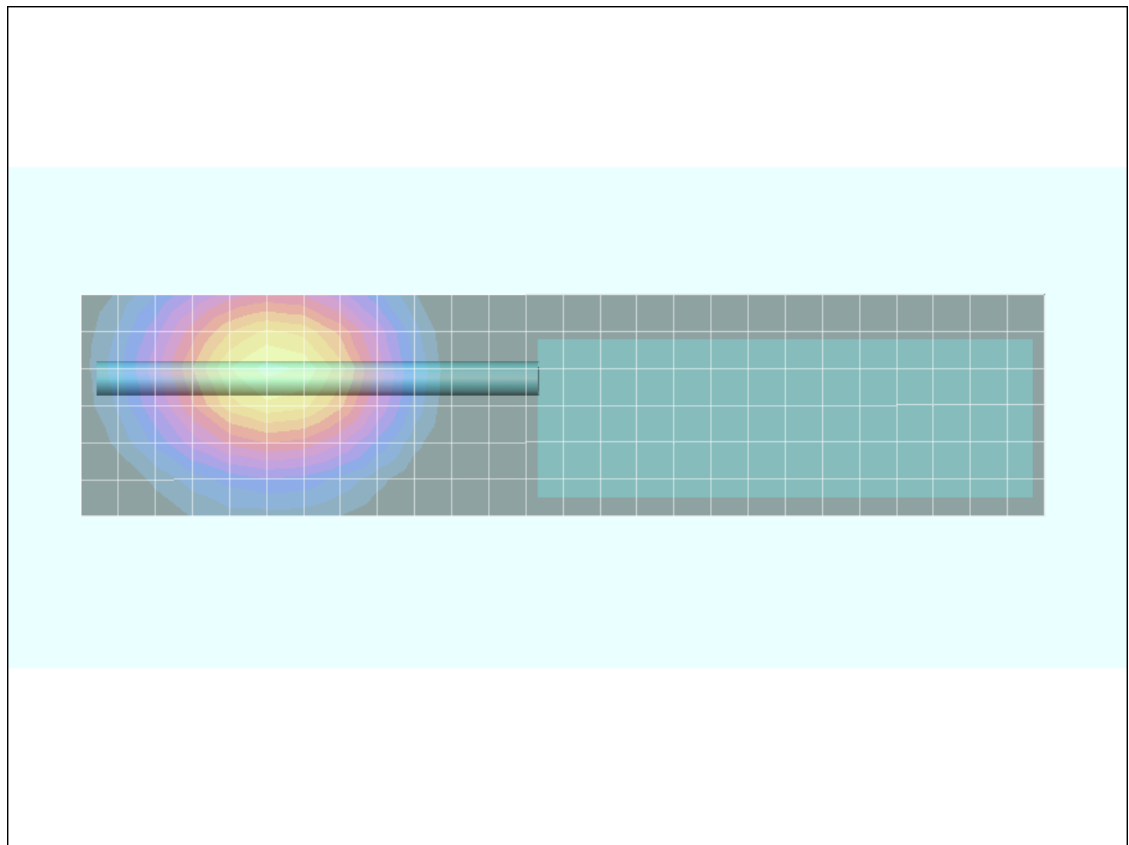
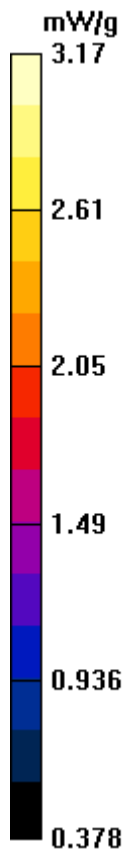
Measurement grid: dx=5mm, dy=5mm, dz=5mm

Peak SAR (extrapolated) = 3.99 W/kg

SAR(1 g) = 3.03 mW/g; SAR(10 g) = 2.2 mW/g

Reference Value = 9.29 V/m

Power Drift = -0.15 dB



Date Tested: 10/20/03

DUT: EF Johnson; Model: 242-5180; Type: FM PTT Speaker-Microphone with Antenna (806-869MHz); Serial: V2-100230237

Ambient Temp: 20.0°C; Fluid Temp: 22.0°C; Barometric Pressure: 101.4 kPa; Humidity: 62%

Communication System: 800MHz FM

Conducted Output Power: 3.46 Watts

Frequency: 815.0125 MHz; Duty Cycle: 1:1

Medium: HSL835 ($\sigma = 0.93$ mho/m, $\epsilon_r = 42.1$, $\rho = 1000$ kg/m³)

- Probe: ET3DV6 - SN1387; ConvF(6.6, 6.6, 6.6); Calibrated: 26/02/2003

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

- Electronics: DAE3 Sn370; Calibrated: 19/05/2003

- Phantom: Planar; Type Plexiglas; Serial: 161

- Measurement SW: DASY4, V4.1 Build 47; Postprocessing SW: SEMCAD, V1.6 Build 116

Face-Held - NiMH Battery - Stubby Antenna - Low-Band Mid-Channel/Area Scan (7x14x1):

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

Face-Held - NiMH Battery - Stubby Antenna - Low-Band Mid-Channel /Zoom Scan (7x7x7)/Cube 0:

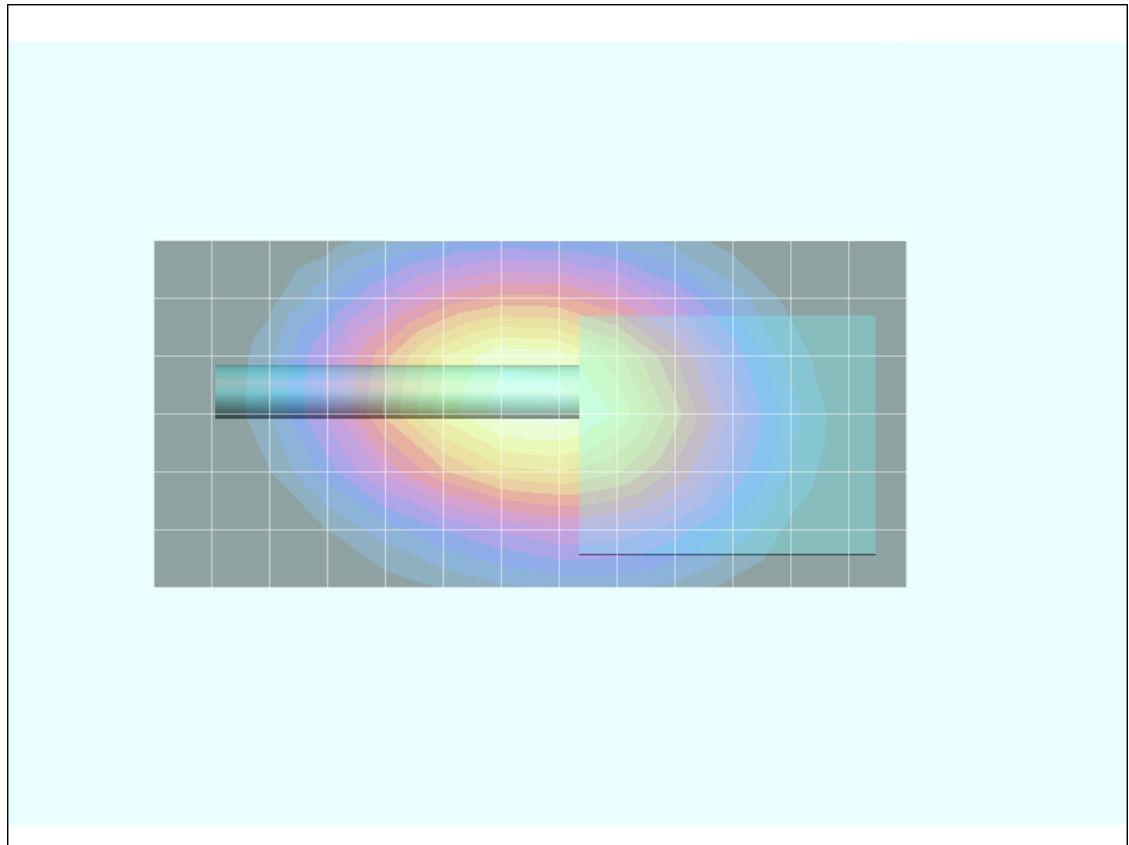
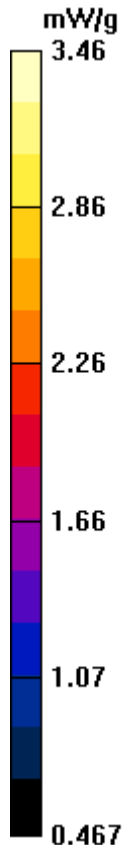
Measurement grid: dx=5mm, dy=5mm, dz=5mm

Peak SAR (extrapolated) = 4.35 W/kg

SAR(1 g) = 3.28 mW/g; SAR(10 g) = 2.36 mW/g

Reference Value = 64.7 V/m

Power Drift = -0.35 dB



Date Tested: 10/20/03

DUT: EF Johnson; Model: 242-5180; Type: FM PTT Speaker-Microphone with Antenna (806-869MHz); Serial: V2-100230237

Ambient Temp: 20.0°C; Fluid Temp: 22.0°C; Barometric Pressure: 101.4 kPa; Humidity: 62%

Communication System: 800MHz FM

Conducted Output Power: 3.43 Watts

Frequency: 860.0125 MHz; Duty Cycle: 1:1

Medium: HSL835 ($\sigma = 0.93$ mho/m, $\epsilon_r = 42.1$, $\rho = 1000$ kg/m³)

- Probe: ET3DV6 - SN1387; ConvF(6.6, 6.6, 6.6); Calibrated: 26/02/2003
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn370; Calibrated: 19/05/2003
- Phantom: Planar; Type: Plexiglas; Serial: 161
- Measurement SW: DASY4, V4.1 Build 47; Postprocessing SW: SEMCAD, V1.6 Build 116

Face-Held - NiMH Battery - Stubby Antenna - High-Band Mid-Channel/Area Scan (7x14x1):

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

Face-Held - NiMH Battery - Stubby Antenna - High-Band Mid-Channel/Zoom Scan (7x7x7)/Cube 0:

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

Peak SAR (extrapolated) = 4.11 W/kg

SAR(1 g) = 3.07 mW/g; SAR(10 g) = 2.18 mW/g

Reference Value = 58.4 V/m

Power Drift = -0.09 dB

