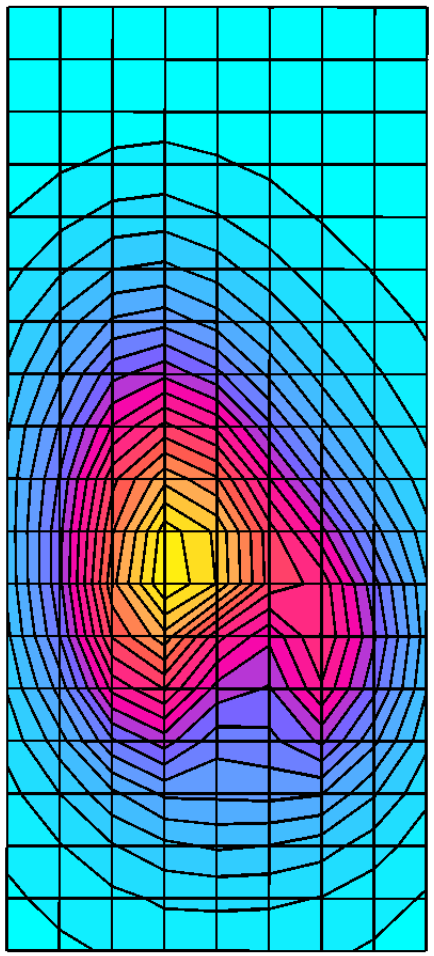
Appendix 3

SAR distribution plots for Body Worn Configuration

338CA46B

Ch# 1013 / Pwr Step: ALWAYS UP Antenna Position: Extended
Type of Modulation: 800 CDMA Battery Model #: SNN5695A
Accessory Model # =Leather Pouch CHYN4459

R1 Amy Twin Phantom Rev.4 (22Aug02) Phantom; section 1 Section; Position: (0°,0°); Frequency: 825 MHz
Probe: ES3DV3 - SN3037 - FCC Body; ConvF(5.90,5.90,5.90); Crest factor: 1.0; 835 MHz Head & Body: $\sigma = 0.98$ mho/m $\varepsilon_r = 55.4$ $\rho = 1.00$ g/cm^3
Cube 7x7x7: SAR (1g): 0.864 mW/g, SAR (10g): 0.562 mW/g, (Worst-case extrapolation)
Coarse: Dx = 10.0, Dy = 10.0, Dz = 10.0
Penetration depth: 12.7 (11.8, 13.8) [mm]
Powerdrift: 0.19 dB

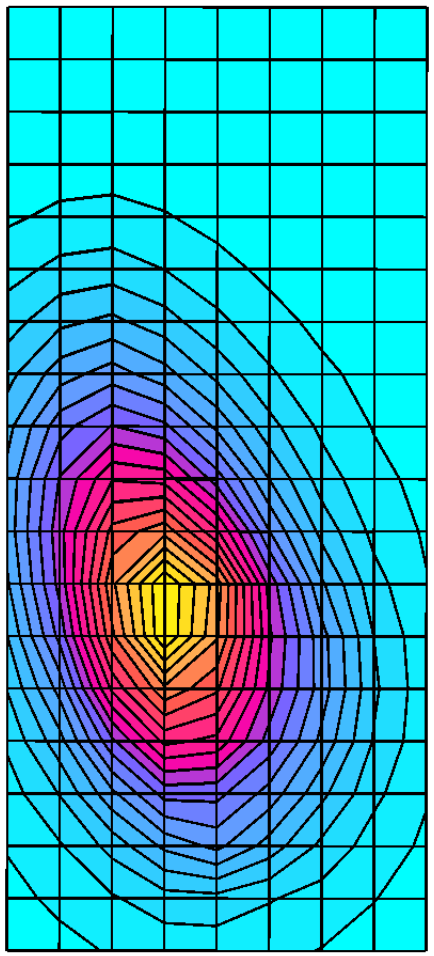


04/26/04 20:37

338CA46B

Ch# 777 / Pwr Step: ALWAYS UP Antenna Position:Extended
Type of Modulation: 800 CDMA Battery Model #: SNN5695A
Accessory Model # =Leather Pouch CHYN4459

R1 Amy Twin Phantom Rev.4 (22Aug02) Phantom; section 1 Section; Position: (0°,0°); Frequency: 848 MHz
Probe: ES3DV3 - SN3037 - FCC Body; ConvF(5.90,5.90,5.90); Crest factor: 1.0; 835 MHz Head & Body: $\sigma = 0.98$ mho/m $\varepsilon_r = 55.4$ $\rho = 1.00$ g/cm^3
Cube 7x7x7: SAR (1g): 0.961 mW/g, SAR (10g): 0.604 mW/g, (Worst-case extrapolation)
Coarse: Dx = 10.0, Dy = 10.0, Dz = 10.0
Penetration depth: 11.9 (10.4, 13.9) [mm]
Powerdrift: -0.02 dB

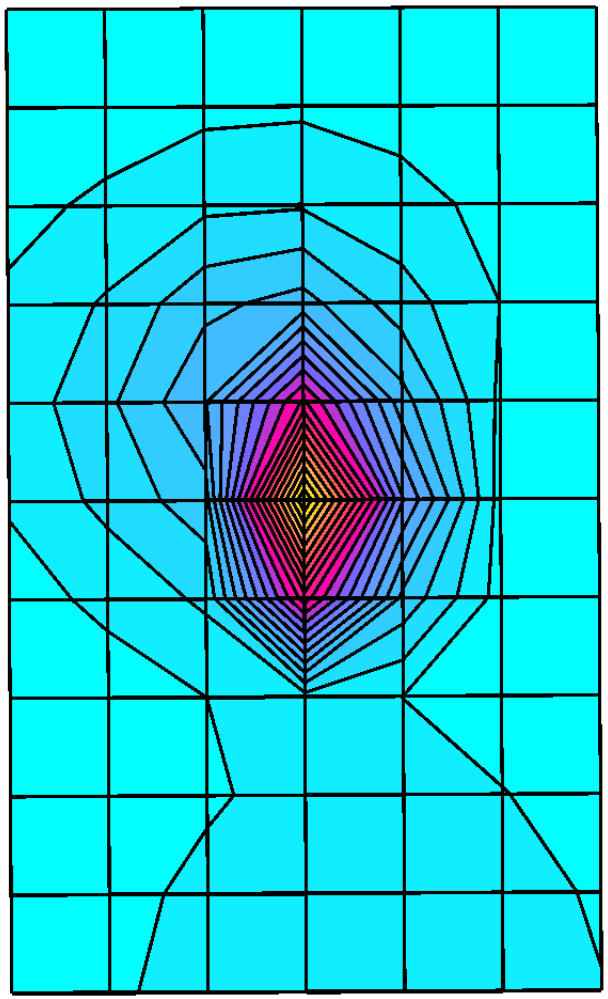


04/28/04 09:33

338CA46B

Ch# 600 / Pwr Step:always up Antenna Position: ret
Type of Modulation:1900 cdma Battery Model #: SNN5695A
Accessory Model # = SYN8763B UNIVERSAL CLIP

R1 Amy Twin Phantom Rev.4 (22Aug02) Phantom; section 2 Section; Position: (0°,0°); Frequency: 1880 MHz
Probe: ES3DV3 - SN3037 - FCC Body; ConvF(4.70,4.70,4.70); Crest factor: 1.0; 1880 MHz Head & Body: σ = 1.58 mho/m ε_r = 50.9 ρ = 1.00 g/cm^3
Cube 7x7x7: SAR (1g): 1.40 mW/g, SAR (10g): 0.691 mW/g, (Worst-case extrapolation)
Coarse: Dx = 15.0, Dy = 15.0, Dz = 10.0
Penetration depth: 9.2 (8.8, 9.8) [mm]
Powerdrift: -0.21 dB

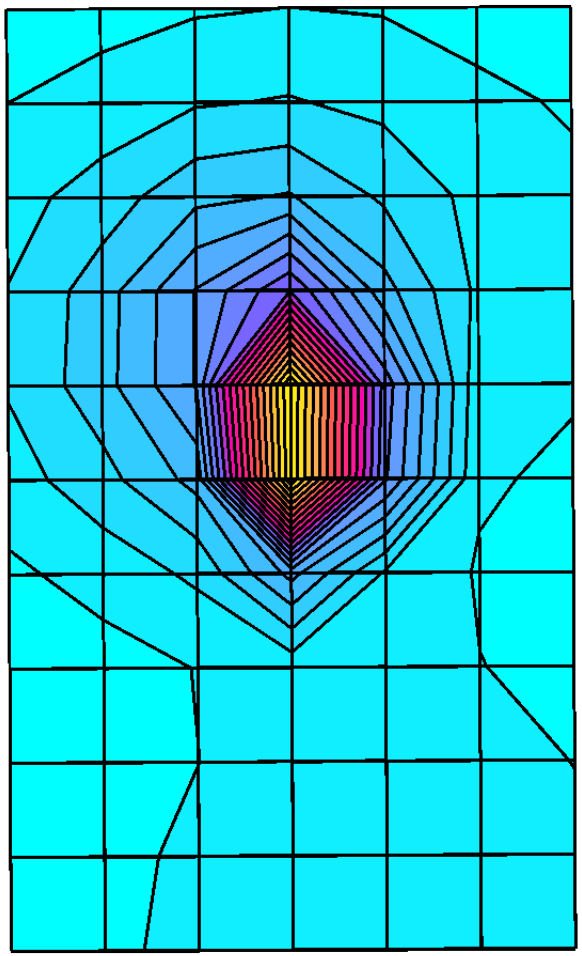


04/28/04 23:58

338CA46B

Ch# 600 / Pwr Step: ALWAYS UP Antenna Position: RET
Type of Modulation:1900 CDMA Battery Model #: EXT BATTERY
Accessory Model # = SYN9766 CASE SYN8763A UNIVERSAL BELT CLIP

R1 Amy Twin Phantom Rev.4 (22Aug02) Phantom; section 2 Section; Position: (0°,0°); Frequency: 1880 MHz
Probe: ES3DV3 - SN3037 - FCC Body; ConvF(4.70,4.70,4.70); Crest factor: 1.0; 1880 MHz Head & Body: σ = 1.58 mho/m ε_r = 50.9 ρ = 1.00 g/cm^3
Cube 7x7x7: SAR (1g): 1.16 mW/g, SAR (10g): 0.584 mW/g, (Worst-case extrapolation)
Coarse: Dx = 15.0, Dy = 15.0, Dz = 10.0
Penetration depth: 9.2 (9.0, 9.6) [mm]
Powerdrift: -0.07 dB

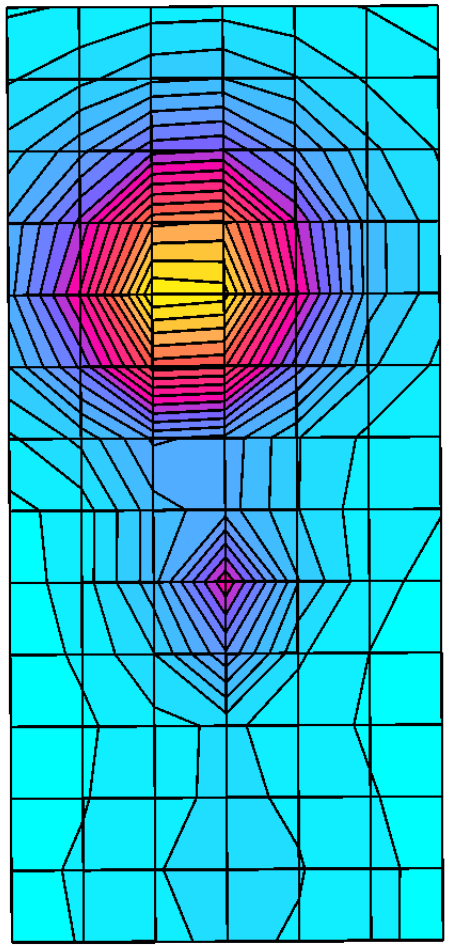


04/28/04 11:21

338CA46B

Ch# 600 / Pwr Step:always up Antenna Position:EXT
Type of Modulation:1900 cdma Battery Model #: SNN5695A
Accessory Model # = SYN8763B UNIVERSAL CLIP

R1 Amy Twin Phantom Rev.4 (22Aug02) Phantom; section 2 Section; Position: (0°,0°); Frequency: 1880 MHz
Probe: ES3DV3 - SN3037 - FCC Body; ConvF(4.70,4.70,4.70); Crest factor: 1.0; 1880 MHz Head & Body: σ = 1.58 mho/m ε_r = 50.9 ρ = 1.00 g/cm^3
Cube 7x7x7: SAR (1g): 0.393 mW/g, SAR (10g): 0.244 mW/g, (Worst-case extrapolation)
Coarse: Dx = 15.0, Dy = 15.0, Dz = 10.0
Penetration depth: 11.0 (10.5, 11.6) [mm]
Powerdrift: -0.07 dB

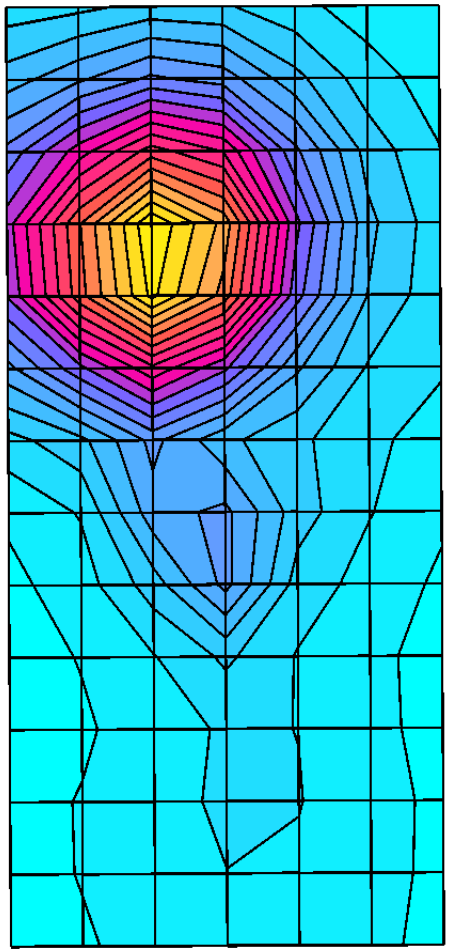


04/29/04 01:44

338CA46B

Ch# 600 / Pwr Step: ALWAYS UP Antenna Position: EXT
Type of Modulation:1900 CDMA Battery Model #: EXT BATTERY
Accessory Model # = SYN9766 CASE SYN8763A UNIVERSAL BELT CLIP

R1 Amy Twin Phantom Rev.4 (22Aug02) Phantom; section 2 Section; Position: (0°,0°); Frequency: 1880 MHz
Probe: ES3DV3 - SN3037 - FCC Body; ConvF(4.70,4.70,4.70); Crest factor: 1.0; 1880 MHz Head & Body: σ = 1.58 mho/m ε_r = 50.9 ρ = 1.00 g/cm^3
Cube 7x7x7: SAR (1g): 0.290 mW/g, SAR (10g): 0.182 mW/g, (Worst-case extrapolation)
Coarse: Dx = 15.0, Dy = 15.0, Dz = 10.0
Penetration depth: 11.0 (10.8, 11.2) [mm]
Powerdrift: -0.02 dB

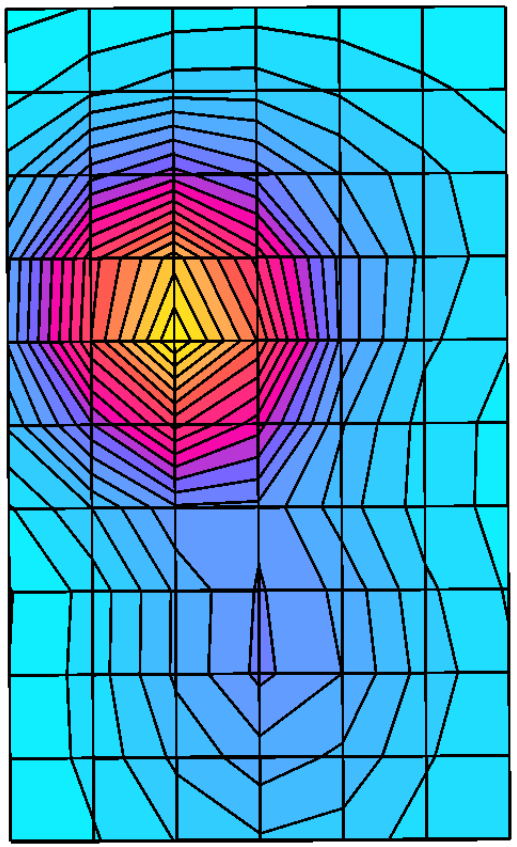


05/10/04 19:59

338CA46B

Ch# 600 / Pwr Step: ALWAYS UP Antenna Position: Ret
Type of Modulation: CDMA 1900 Battery Model #: SNN5695A
Accessory Model # = SYN9766 CASE AND SYN8631A WISHBONE CLIP

R1 Amy Twin Phantom Rev.4 (22Aug02) Phantom; section 2 Section; Position: (0°,0°); Frequency: 1880 MHz
Probe: ES3DV3 - SN3037 - FCC Body; ConvF(4.70,4.70,4.70); Crest factor: 1.0; 1880 MHz Head & Body: σ = 1.58 mho/m ε_r = 51.3 ρ = 1.00 g/cm^3
Cube 7x7x7: SAR (1g): 0.694 mW/g, SAR (10g): 0.425 mW/g, (Worst-case extrapolation)
Coarse: Dx = 15.0, Dy = 15.0, Dz = 10.0
Penetration depth: 10.5 (10.3, 11.0) [mm]
Powerdrift: -0.07 dB

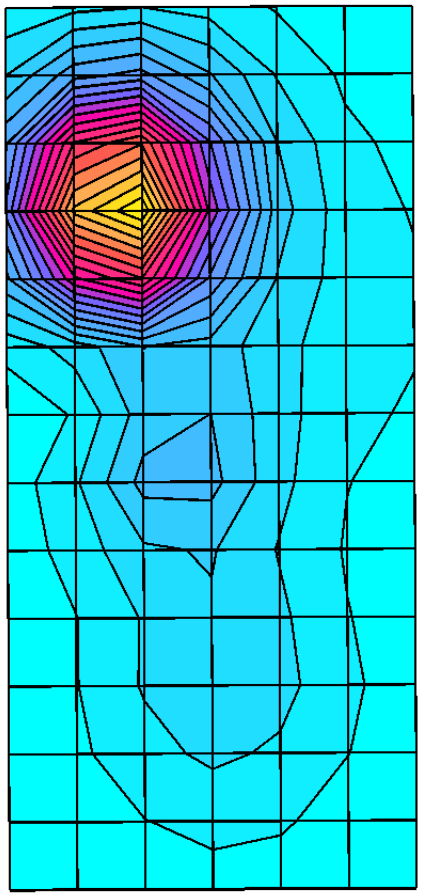


05/10/04 21:09

338CA46B

Ch# 600 / Pwr Step: ALWAYS UP Antenna Position: Ext
Type of Modulation: CDMA 1900 Battery Model #: SNN5695A
Accessory Model # = SYN9766 CASE AND SYN8631A WISHBONE CLIP

R1 Amy Twin Phantom Rev.4 (22Aug02) Phantom; section 2 Section; Position: (0°,0°); Frequency: 1880 MHz
Probe: ES3DV3 - SN3037 - FCC Body; ConvF(4.70,4.70,4.70); Crest factor: 1.0; 1880 MHz Head & Body: σ = 1.58 mho/m ε_r = 51.3 ρ = 1.00 g/cm^3
Cube 7x7x7: SAR (1g): 0.689 mW/g, SAR (10g): 0.411 mW/g, (Worst-case extrapolation)
Coarse: Dx = 15.0, Dy = 15.0, Dz = 10.0
Penetration depth: 10.7 (10.4, 11.2) [mm]
Powerdrift: -0.04 dB

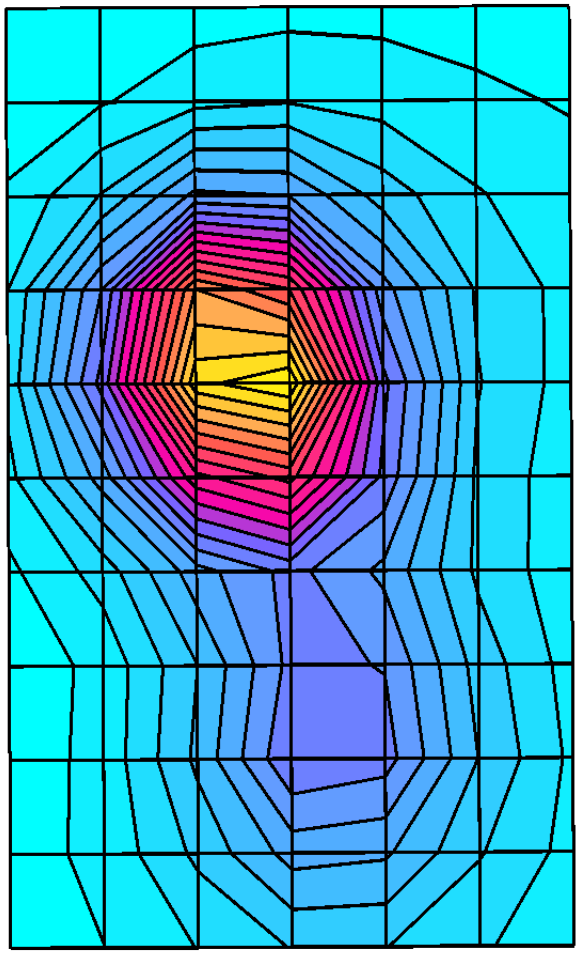


04/28/04 18:33

338CA46B

Ch# 600 / Pwr Step: ALWAYS UP
Antenna Position: RET
Type of Modulation:1900 CDMA
Battery Model #: SNN5695A
Accessory Model # = SYN0912A Plastic Holder

R1 Amy Twin Phantom Rev.4 (22Aug02) Phantom; section 2 Section; Position: (0°,0°); Frequency: 1880 MHz
Probe: ES3DV3 - SN3037 - FCC Body; ConvF(4.70,4.70,4.70); Crest factor: 1.0; 1880 MHz Head & Body: σ = 1.58 mho/m ε_r = 50.9 ρ = 1.00 g/cm^3
Cube 7x7x7: SAR (1g): 1.16 mW/g, SAR (10g): 0.692 mW/g, (Worst-case extrapolation)
Coarse: Dx = 15.0, Dy = 15.0, Dz = 10.0
Penetration depth: 10.0 (9.6, 10.6) [mm]
Powerdrift: -0.10 dB

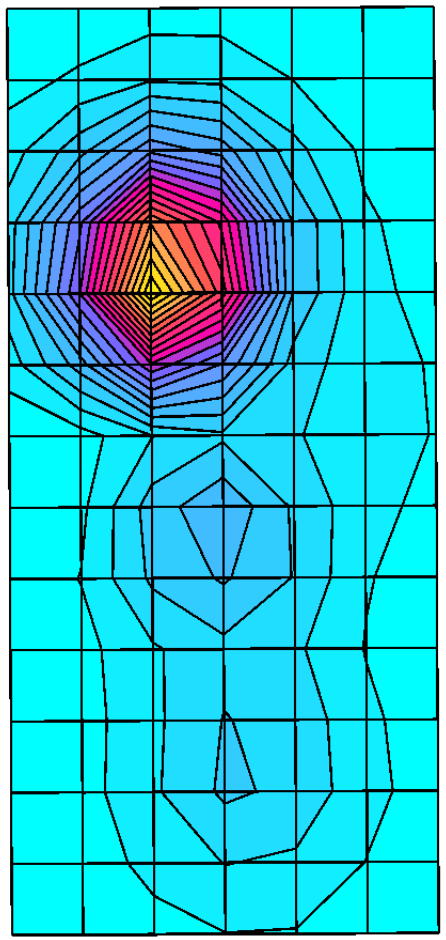


04/28/04 20:59

338CA46B

Ch# 600 / Pwr Step: ALWAYS UP
Antenna Position: EXT
Type of Modulation:1900 CDMA
Battery Model #: SNN5695A
Accessory Model # = SYN0912A Plastic Holder

R1 Amy Twin Phantom Rev.4 (22Aug02) Phantom; section 2 Section; Position: (0°,0°); Frequency: 1880 MHz
Probe: ES3DV3 - SN3037 - FCC Body; ConvF(4.70,4.70,4.70); Crest factor: 1.0; 1880 MHz Head & Body: σ = 1.58 mho/m ε_r = 50.9 ρ = 1.00 g/cm^3
Cube 7x7x7: SAR (1g): 1.09 mW/g, SAR (10g): 0.631 mW/g, (Worst-case extrapolation)
Coarse: Dx = 15.0, Dy = 15.0, Dz = 10.0
Penetration depth: 10.2 (9.9, 10.7) [mm]
Powerdrift: 0.12 dB

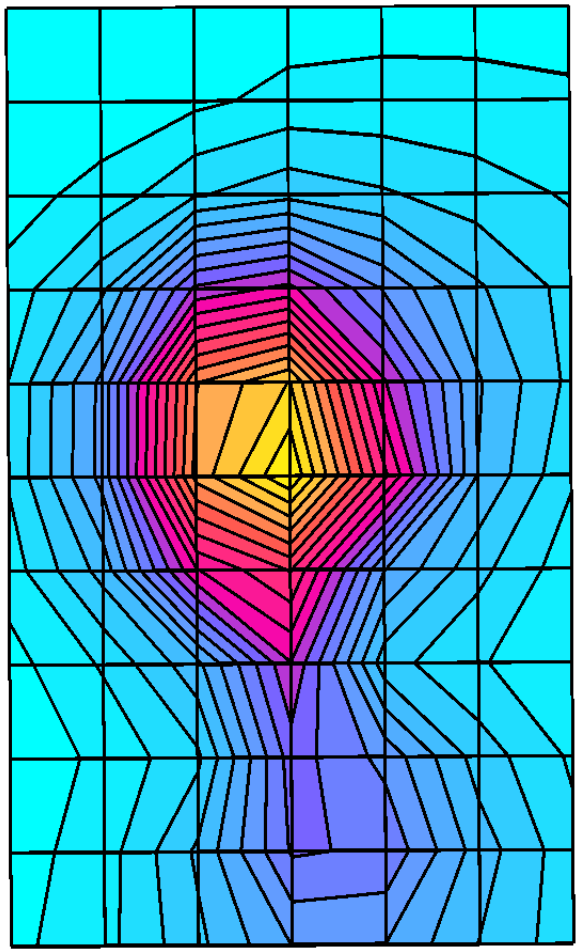


04/28/04 12:33

338CA46B

Ch# 600 / Pwr Step:always up Antenna Position:RET
Type of Modulation:1900 cdma Battery Model #: SNN5695A
Accessory Model # = CHYN4459 LEATHER CASE

R1 Amy Twin Phantom Rev.4 (22Aug02) Phantom; section 2 Section; Position: (0°,0°); Frequency: 1880 MHz
Probe: ES3DV3 - SN3037 - FCC Body; ConvF(4.70,4.70,4.70); Crest factor: 1.0; 1880 MHz Head & Body: σ = 1.58 mho/m ε_r = 50.9 ρ = 1.00 g/cm^3
Cube 7x7x7: SAR (1g): 0.980 mW/g, SAR (10g): 0.591 mW/g, (Worst-case extrapolation)
Coarse: Dx = 15.0, Dy = 15.0, Dz = 10.0
Penetration depth: 10.5 (10.0, 11.2) [mm]
Powerdrift: -0.13 dB

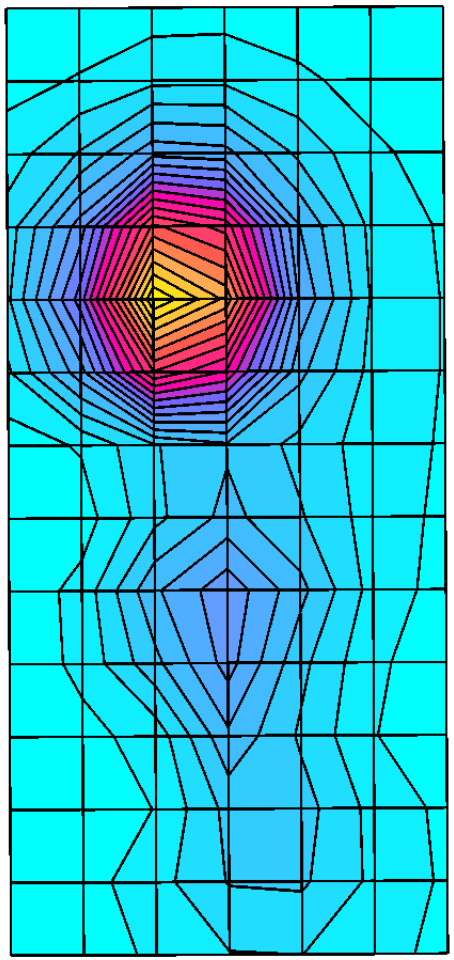


04/28/04 14:35

338CA46B

Ch# 600 / Pwr Step:always up Antenna PositionEXT
Type of Modulation:1900 cdma Battery Model #: SNN5695A
Accessory Model # = CHYN4459 LEATHER CASE

R1 Amy Twin Phantom Rev.4 (22Aug02) Phantom; section 2 Section; Position: (0°,0°); Frequency: 1880 MHz
Probe: ES3DV3 - SN3037 - FCC Body; ConvF(4.70,4.70,4.70); Crest factor: 1.0; 1880 MHz Head & Body: σ = 1.58 mho/m ε_r = 50.9 ρ = 1.00 g/cm^3
Cube 7x7x7: SAR (1g): 0.983 mW/g, SAR (10g): 0.577 mW/g, (Worst-case extrapolation)
Coarse: Dx = 15.0, Dy = 15.0, Dz = 10.0
Penetration depth: 10.3 (9.9, 11.0) [mm]
Powerdrift: -0.00 dB

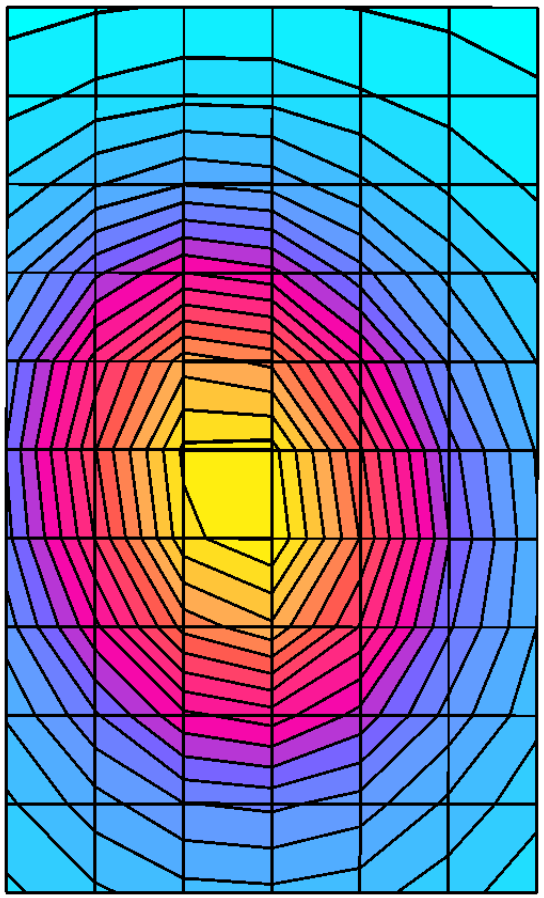


05/10/04 13:59

338CA46B

Ch# 384 / Pwr Step: ALWAYS UP Antenna Position: RET.
Type of Modulation: CDMA 800 Battery Model #: SNN5695A
Accessory Model # = SYN9766 CASE AND SYN8763A UNIVERSAL CLIP

R1 Amy Twin Phantom Rev.4 (22Aug02) Phantom; section 1 Section; Position: (0°,0°); Frequency: 837 MHz
Probe: ES3DV3 - SN3037 - FCC Body; ConvF(5.90,5.90,5.90); Crest factor: 1.0; 835 MHz Head & Body: $\sigma = 0.98$ mho/m $\varepsilon_r = 53.8$ $\rho = 1.00$ g/cm^3
Cube 7x7x7: SAR (1g): 0.220 mW/g, SAR (10g): 0.162 mW/g, (Worst-case extrapolation)
Coarse: Dx = 15.0, Dy = 15.0, Dz = 10.0
Penetration depth: 19.0 (17.4, 20.4) [mm]
Powerdrift: 0.11 dB

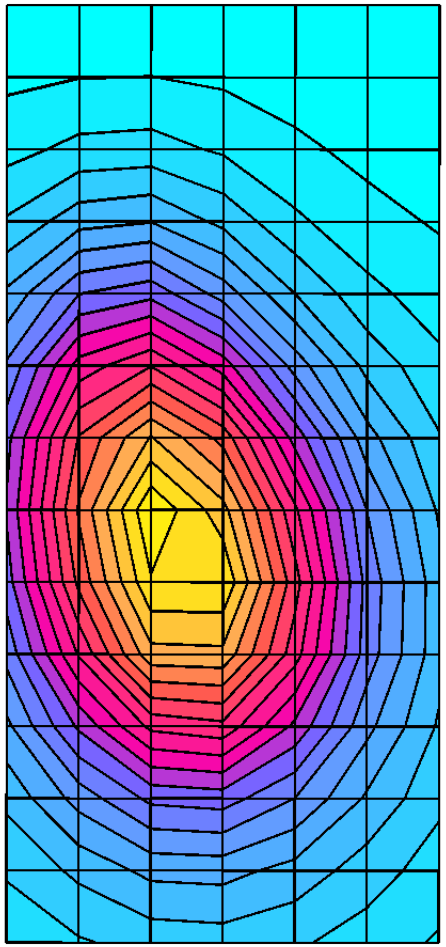


05/10/04 16:50

338CA46B

Ch# 384 / Pwr Step: ALWAYS UP Antenna Position: Ext
Type of Modulation: CDMA 800 Battery Model #: SNN5695A
Accessory Model # = SYN9766 CASE AND SYN8763A UNIVERSAL CLIP

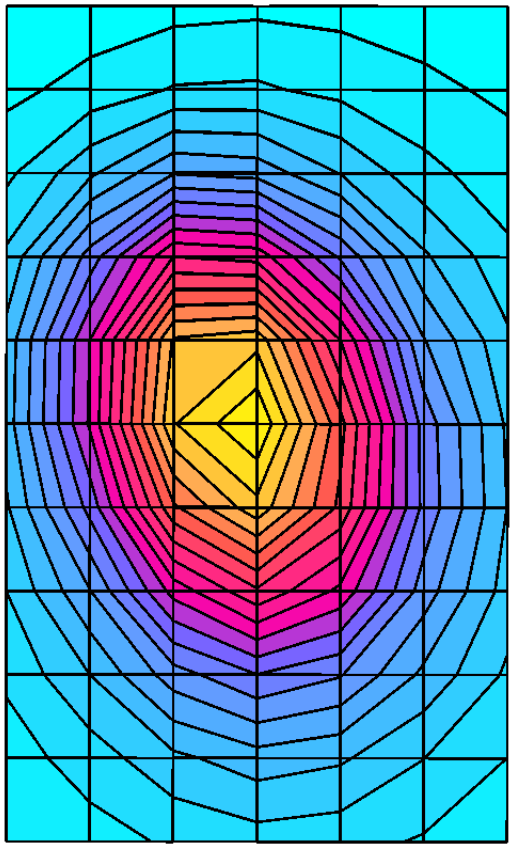
R1 Amy Twin Phantom Rev.4 (22Aug02) Phantom; section 1 Section; Position: (0°,0°); Frequency: 837 MHz
Probe: ES3DV3 - SN3037 - FCC Body; ConvF(5.90,5.90,5.90); Crest factor: 1.0; 835 MHz Head & Body: $\sigma = 0.98$ mho/m $\varepsilon_r = 53.8$ $\rho = 1.00$ g/cm^3
Cube 7x7x7: SAR (1g): 0.239 mW/g, SAR (10g): 0.175 mW/g, (Worst-case extrapolation)
Coarse: Dx = 15.0, Dy = 15.0, Dz = 10.0
Penetration depth: 18.0 (17.9, 18.4) [mm]
Powerdrift: 0.07 dB



338CA46B

Ch# 384 / Pwr Step: ALWAYS UP
Antenna Position: RET.
Type of Modulation: 800 CDMA
Battery Model #: SNN5695A
Accessory Model # = SYN9766 CASE and SYN8631A WISHBONE CLIP

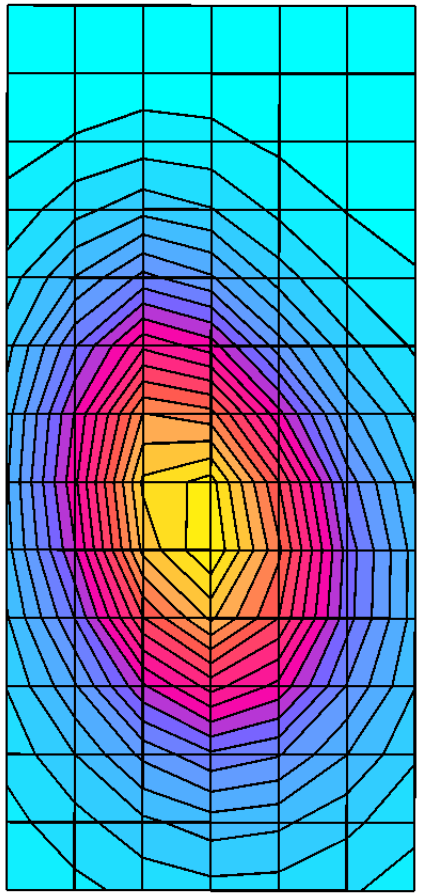
R1 Amy Twin Phantom Rev.4 (22Aug02) Phantom; section 1 Section; Position: (0°,0°); Frequency: 837 MHz
Probe: ES3DV3 - SN3037 - FCC Body; ConvF(5.90,5.90,5.90); Crest factor: 1.0; 835 MHz Head & Body: $\sigma = 0.98$ mho/m $\varepsilon_r = 55.4$ $\rho = 1.00$ g/cm^3
Cube 7x7x7: SAR (1g): 0.369 mW/g, SAR (10g): 0.265 mW/g, (Worst-case extrapolation)
Coarse: Dx = 15.0, Dy = 15.0, Dz = 10.0
Penetration depth: 17.2 (16.4, 17.9) [mm]
Powerdrift: 0.09 dB



338CA46B

Ch# 384 / Pwr Step: ALWAYS UP
Antenna Position: EXT.
Type of Modulation: 800 CDMA
Battery Model #: SNN5695A
Accessory Model # = SYN9766 CASE and SYN8631A WISHBONE CLIP

R1 Amy Twin Phantom Rev.4 (22Aug02) Phantom; section 1 Section; Position: (0°,0°); Frequency: 837 MHz
Probe: ES3DV3 - SN3037 - FCC Body; ConvF(5.90,5.90,5.90); Crest factor: 1.0; 835 MHz Head & Body: $\sigma = 0.98$ mho/m $\varepsilon_r = 55.4$ $\rho = 1.00$ g/cm^3
Cube 7x7x7: SAR (1g): 0.396 mW/g, SAR (10g): 0.286 mW/g, (Worst-case extrapolation)
Coarse: Dx = 15.0, Dy = 15.0, Dz = 10.0
Penetration depth: 17.1 (15.9, 18.3) [mm]
Powerdrift: 0.12 dB

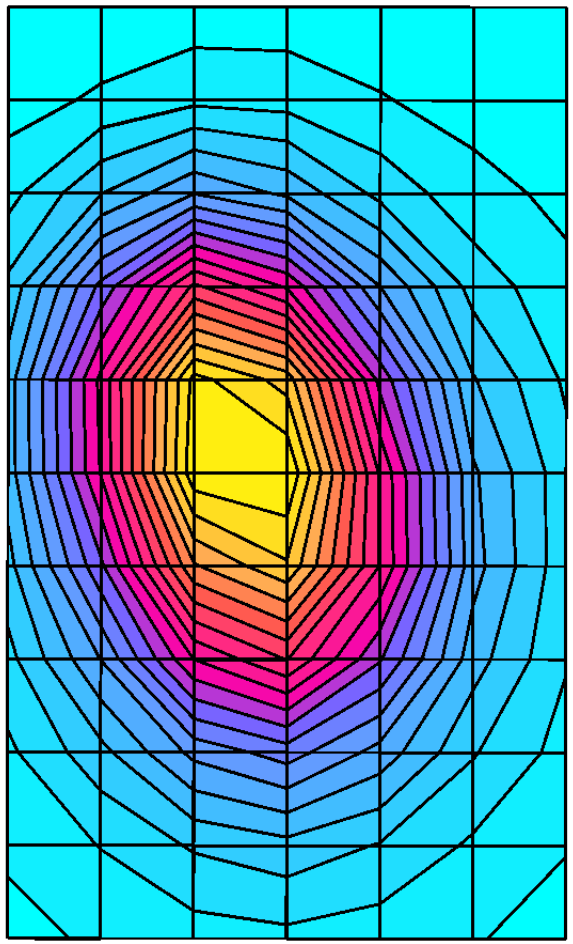


04/28/04 01:09

338CA46B

Ch# 384 / Pwr Step: ALWAYS UP
Antenna Position: RET
Type of Modulation: 800 CDMA
Battery Model #: SNN5695A
Accessory Model # = SYN0912A Plastic Holder

R1 Amy Twin Phantom Rev.4 (22Aug02) Phantom; section 1 Section; Position: (0°,0°); Frequency: 837 MHz
Probe: ES3DV3 - SN3037 - FCC Body; ConvF(5.90,5.90,5.90); Crest factor: 1.0; 835 MHz Head & Body: $\sigma = 0.98$ mho/m $\varepsilon_r = 54.5$ $\rho = 1.00$ g/cm^3
Cube 7x7x7: SAR (1g): 0.609 mW/g, SAR (10g): 0.429 mW/g, (Worst-case extrapolation)
Coarse: Dx = 15.0, Dy = 15.0, Dz = 10.0
Penetration depth: 16.1 (14.7, 17.4) [mm]
Powerdrift: 0.09 dB

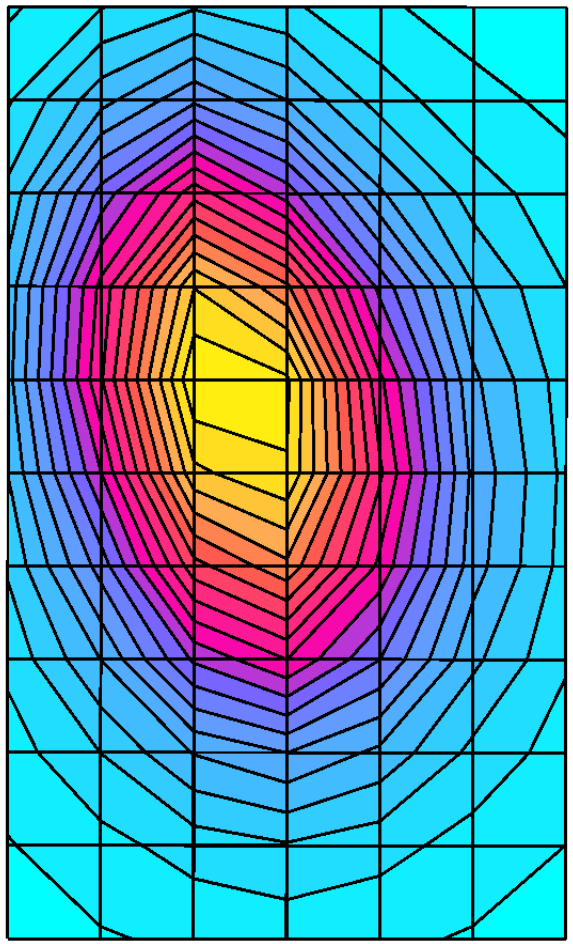


04/28/04 01:48

338CA46B

Ch# 384 / Pwr Step: ALWAYS UP
Antenna Position: EXT
Type of Modulation: 800 CDMA
Battery Model #: SNN5695A
Accessory Model # = SYN0912A Plastic Holder

R1 Amy Twin Phantom Rev.4 (22Aug02) Phantom; section 1 Section; Position: (0°,0°); Frequency: 837 MHz
Probe: ES3DV3 - SN3037 - FCC Body; ConvF(5.90,5.90,5.90); Crest factor: 1.0; 835 MHz Head & Body: $\sigma = 0.98$ mho/m $\varepsilon_r = 54.5$ $\rho = 1.00$ g/cm^3
Cube 7x7x7: SAR (1g): 0.594 mW/g, SAR (10g): 0.419 mW/g, (Worst-case extrapolation)
Coarse: Dx = 15.0, Dy = 15.0, Dz = 10.0
Penetration depth: 15.7 (14.9, 16.5) [mm]
Powerdrift: 0.06 dB

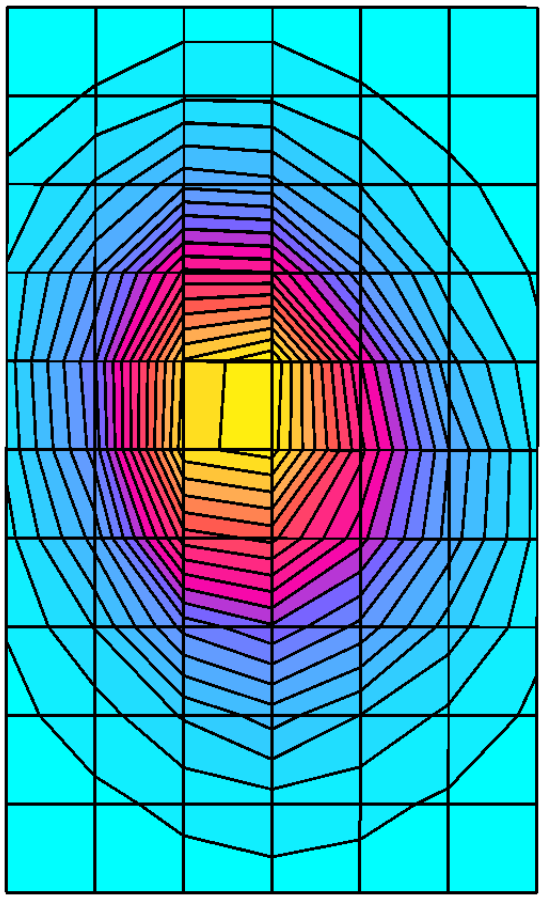


04/26/04 13:56

338CA46B

Ch# 384 / Pwr Step: ALWAYS UP
Antenna Position: RET.
Type of Modulation: 800 CDMA
Battery Model #:SNN5695A
Accessory Model # = CHYN4459 Pouch

R1 Amy Twin Phantom Rev.4 (22Aug02) Phantom; section 1 Section; Position: (0°,0°); Frequency: 837 MHz
Probe: ES3DV3 - SN3037 - FCC Body; ConvF(5.90,5.90,5.90); Crest factor: 1.0; 835 MHz Head & Body: $\sigma = 0.98$ mho/m $\varepsilon_r = 55.4$ $\rho = 1.00$ g/cm^3
Cube 7x7x7: SAR (1g): 0.811 mW/g, SAR (10g): 0.514 mW/g, (Worst-case extrapolation)
Coarse: Dx = 15.0, Dy = 15.0, Dz = 10.0
Penetration depth: 12.6 (12.2, 13.3) [mm]
Powerdrift: 0.03 dB

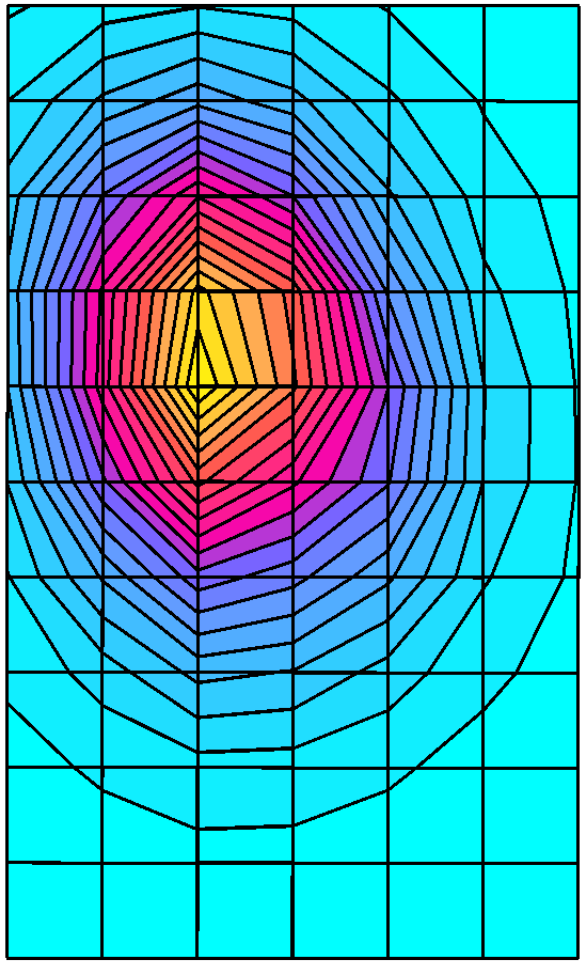


05/10/04 19:25

338CA46B

Ch# 384 / Pwr Step: ALWAYS UP Antenna Position: Ret
Type of Modulation: CDMA 800 Battery Model #: Eng. Sample Ext Batt
Accessory Model # = CHYN4459A Pouch

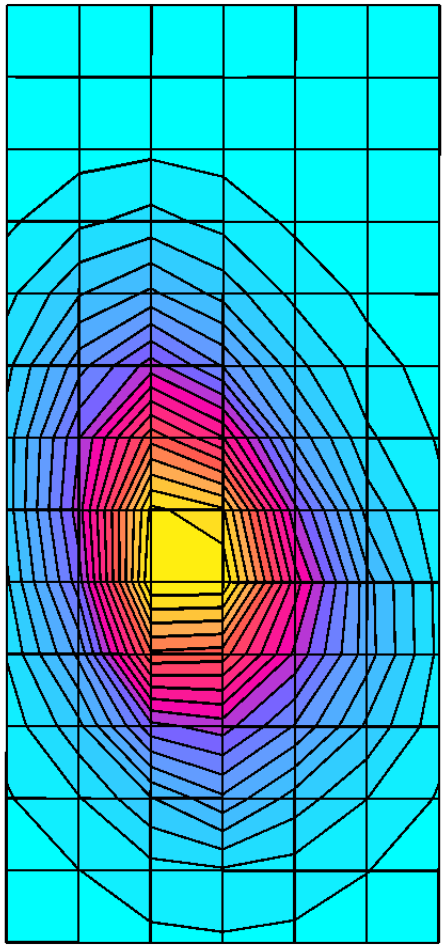
R1 Amy Twin Phantom Rev.4 (22Aug02) Phantom; section 1 Section; Position: (0°,0°); Frequency: 837 MHz
Probe: ES3DV3 - SN3037 - FCC Body; ConvF(5.90,5.90,5.90); Crest factor: 1.0; 835 MHz Head & Body: $\sigma = 0.98$ mho/m $\varepsilon_r = 53.8$ $\rho = 1.00$ g/cm^3
Cube 7x7x7: SAR (1g): 0.614 mW/g, SAR (10g): 0.391 mW/g, (Worst-case extrapolation)
Coarse: Dx = 15.0, Dy = 15.0, Dz = 10.0
Penetration depth: 12.6 (11.5, 13.9) [mm]
Powerdrift: -0.02 dB



338CA46B

Ch# 384 / Pwr Step: ALWAYS UP Antenna Position: EXT.
Type of Modulation: 800 CDMA Battery Model #:SNN5695A
Accessory Model # = CHYN4459 Pouch

R1 Amy Twin Phantom Rev.4 (22Aug02) Phantom; section 1 Section; Position: (0°,0°); Frequency: 837 MHz
Probe: ES3DV3 - SN3037 - FCC Body; ConvF(5.90,5.90,5.90); Crest factor: 1.0; 835 MHz Head & Body: $\sigma = 0.98$ mho/m $\varepsilon_r = 55.4$ $\rho = 1.00$ g/cm^3
Cube 7x7x7: SAR (1g): 0.833 mW/g, SAR (10g): 0.531 mW/g, (Worst-case extrapolation)
Coarse: Dx = 15.0, Dy = 15.0, Dz = 10.0
Penetration depth: 12.2 (10.8, 14.0) [mm]
Powerdrift: 0.05 dB

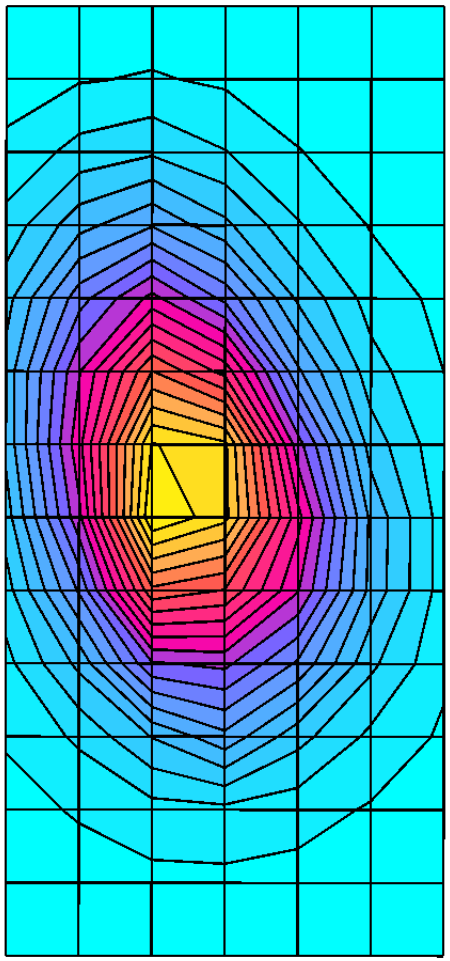


05/10/04 18:47

338CA46B

Ch# 384 / Pwr Step: ALWAYS UP Antenna Position: Ext
Type of Modulation: CDMA 800 Battery Model #: Eng. Sample Ext Batt
Accessory Model # = CHYN4459A Pouch

R1 Amy Twin Phantom Rev.4 (22Aug02) Phantom; section 1 Section; Position: (0°,0°); Frequency: 837 MHz
Probe: ES3DV3 - SN3037 - FCC Body; ConvF(5.90,5.90,5.90); Crest factor: 1.0; 835 MHz Head & Body: $\sigma = 0.98$ mho/m $\varepsilon_r = 53.8$ $\rho = 1.00$ g/cm^3
Cube 7x7x7: SAR (1g): 0.701 mW/g, SAR (10g): 0.451 mW/g, (Worst-case extrapolation)
Coarse: Dx = 15.0, Dy = 15.0, Dz = 10.0
Penetration depth: 12.6 (11.5, 14.0) [mm]
Powerdrift: -0.01 dB

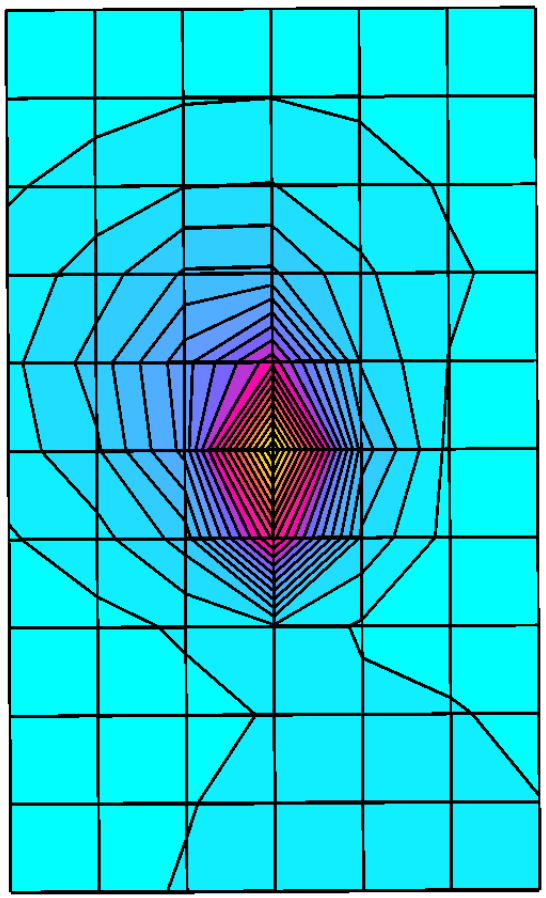


04/28/04 10:05

338CA46B

Ch# 25 / Pwr Step:always up Antenna Position: ret
Type of Modulation:1900 cdma Battery Model #: SNN5695A
Accessory Model # = SYN8763B UNIVERSAL CLIP

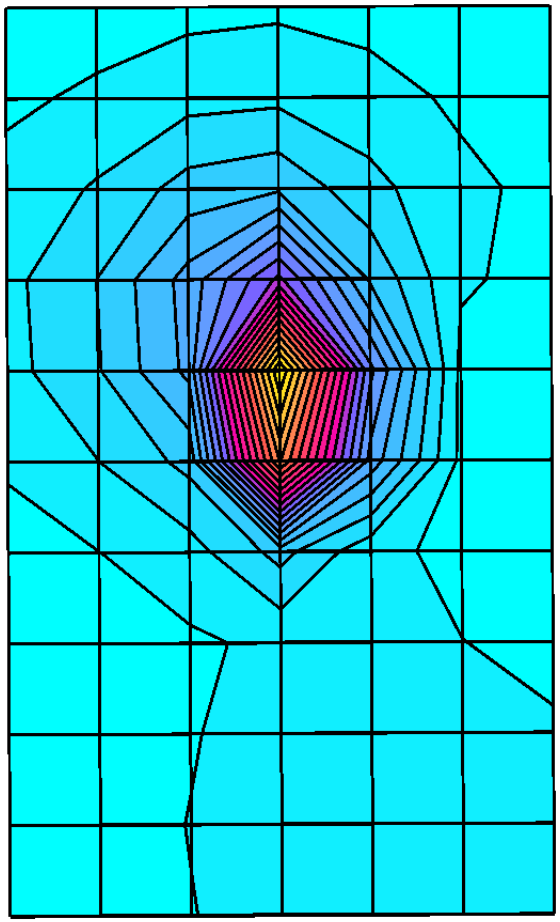
R1 Amy Twin Phantom Rev.4 (22Aug02) Phantom; section 2 Section; Position: (0°,0°); Frequency: 1851 MHz
Probe: ES3DV3 - SN3037 - FCC Body; ConvF(4.70,4.70,4.70); Crest factor: 1.0; 1880 MHz Head & Body: σ = 1.58 mho/m ε_r = 50.9 ρ = 1.00 g/cm^3
Cube 7x7x7: SAR (1g): 1.29 mW/g, SAR (10g): 0.658 mW/g, (Worst-case extrapolation)
Coarse: Dx = 15.0, Dy = 15.0, Dz = 10.0
Penetration depth: 9.1 (8.9, 9.6) [mm]
Powerdrift: -0.15 dB



338CA46B

Ch# 25 / Pwr Step: ALWAYS UP Antenna Position: RET
Type of Modulation:1900 CDMA Battery Model #: EXT BATTERY
Accessory Model # = SYN9766 CASE SYN8763A UNIVERSAL BELT CLIP

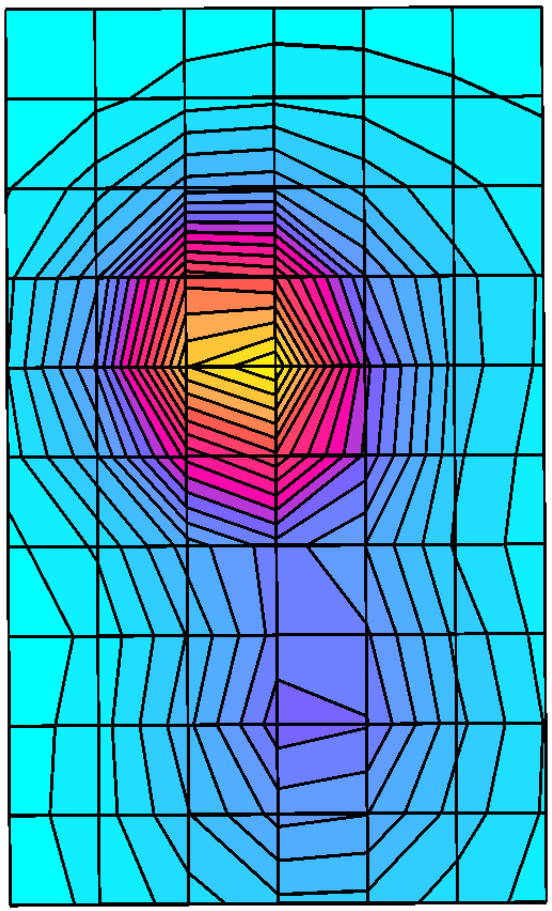
R1 Amy Twin Phantom Rev.4 (22Aug02) Phantom; section 2 Section; Position: (0°,0°); Frequency: 1851 MHz
Probe: ES3DV3 - SN3037 - FCC Body; ConvF(4.70,4.70,4.70); Crest factor: 1.0; 1880 MHz Head & Body: σ = 1.58 mho/m ε_r = 50.9 ρ = 1.00 g/cm^3
Cube 7x7x7: SAR (1g): 1.34 mW/g, SAR (10g): 0.667 mW/g, (Worst-case extrapolation)
Coarse: Dx = 15.0, Dy = 15.0, Dz = 10.0
Penetration depth: 9.2 (9.1, 9.6) [mm]
Powerdrift: -0.05 dB



338CA46B

Ch# 25 / Pwr Step: ALWAYS UP
Antenna Position: RET
Type of Modulation:1900 CDMA
Battery Model #: SNN5695A
Accessory Model # = SYN0912A Plastic Holder

R1 Amy Twin Phantom Rev.4 (22Aug02) Phantom; section 2 Section; Position: (0°,0°); Frequency: 1851 MHz
Probe: ES3DV3 - SN3037 - FCC Body; ConvF(4.70,4.70,4.70); Crest factor: 1.0; 1880 MHz Head & Body: σ = 1.58 mho/m ε_r = 50.9 ρ = 1.00 g/cm^3
Cube 7x7x7: SAR (1g): 1.18 mW/g, SAR (10g): 0.713 mW/g, (Worst-case extrapolation)
Coarse: Dx = 15.0, Dy = 15.0, Dz = 10.0
Penetration depth: 10.4 (10.0, 10.9) [mm]
Powerdrift: -0.04 dB

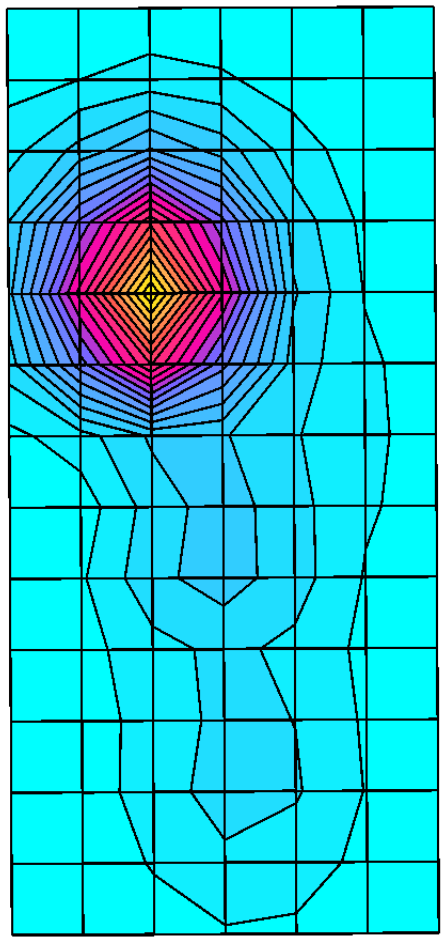


04/28/04 22:39

338CA46B

Ch# 25 / Pwr Step: ALWAYS UP
Antenna Position: EXT
Type of Modulation:1900 CDMA
Battery Model #: SNN5695A
Accessory Model # = SYN0912A Plastic Holder

R1 Amy Twin Phantom Rev.4 (22Aug02) Phantom; section 2 Section; Position: (0°,0°); Frequency: 1851 MHz
Probe: ES3DV3 - SN3037 - FCC Body; ConvF(4.70,4.70,4.70); Crest factor: 1.0; 1880 MHz Head & Body: σ = 1.58 mho/m ε_r = 50.9 ρ = 1.00 g/cm^3
Cube 7x7x7: SAR (1g): 1.00 mW/g, SAR (10g): 0.582 mW/g, (Worst-case extrapolation)
Coarse: Dx = 15.0, Dy = 15.0, Dz = 10.0
Penetration depth: 10.4 (10.0, 10.9) [mm]
Powerdrift: 0.02 dB

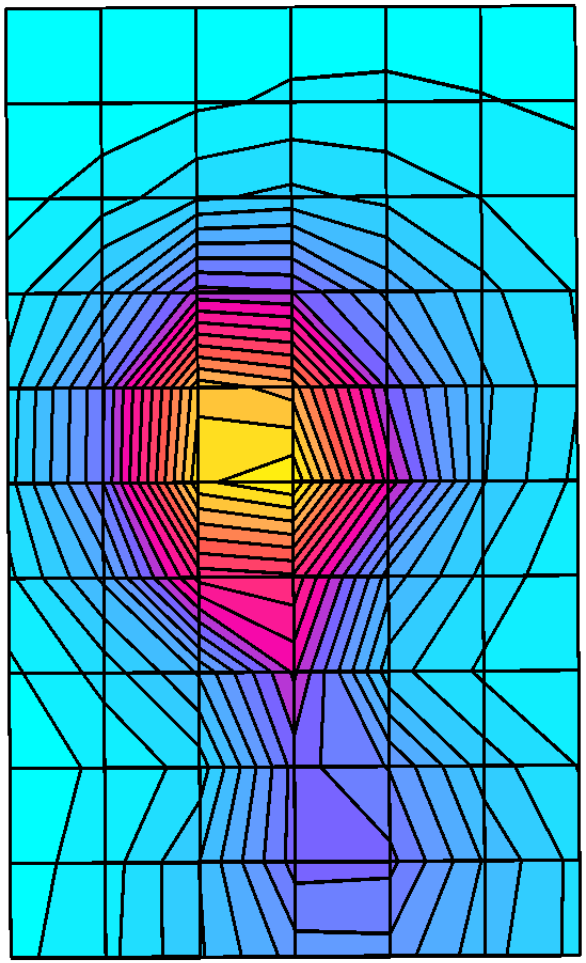


04/28/04 13:14

338CA46B

Ch# 25 / Pwr Step:always up Antenna Position:RET
Type of Modulation:1900 cdma Battery Model #: SNN5695A
Accessory Model # = CHYN4459 LEATHER CASE

R1 Amy Twin Phantom Rev.4 (22Aug02) Phantom; section 2 Section; Position: (0°,0°); Frequency: 1851 MHz
Probe: ES3DV3 - SN3037 - FCC Body; ConvF(4.70,4.70,4.70); Crest factor: 1.0; 1880 MHz Head & Body: σ = 1.58 mho/m ε_r = 50.9 ρ = 1.00 g/cm^3
Cube 7x7x7: SAR (1g): 1.05 mW/g, SAR (10g): 0.632 mW/g, (Worst-case extrapolation)
Coarse: Dx = 15.0, Dy = 15.0, Dz = 10.0
Penetration depth: 10.8 (10.4, 11.3) [mm]
Powerdrift: -0.06 dB

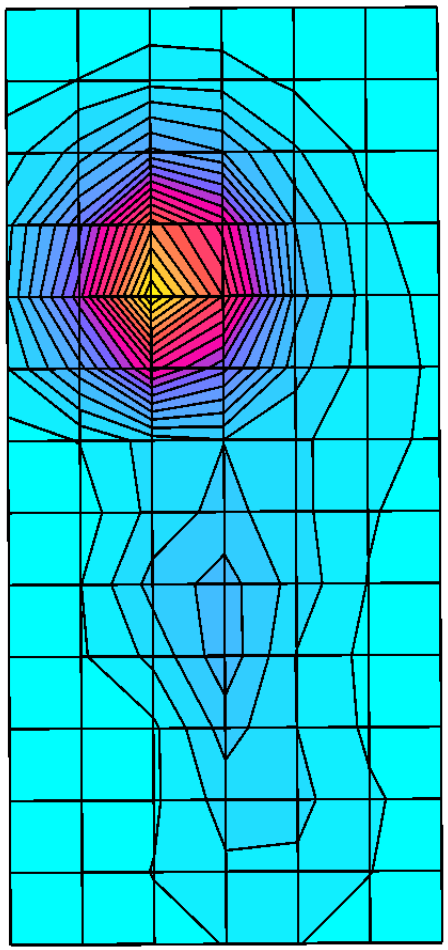


04/28/04 17:19

338CA46B

Ch# 25 / Pwr Step: ALWAYS UP
Antenna Position: EXT
Type of Modulation:1900 CDMA
Battery Model #: SNN5695A
Accessory Model # = CHYN4459 LEATHER CASE

R1 Amy Twin Phantom Rev.4 (22Aug02) Phantom; section 2 Section; Position: (0°,0°); Frequency: 1851 MHz
Probe: ES3DV3 - SN3037 - FCC Body; ConvF(4.70,4.70,4.70); Crest factor: 1.0; 1880 MHz Head & Body: σ = 1.58 mho/m ε_r = 50.9 ρ = 1.00 g/cm^3
Cube 7x7x7: SAR (1g): 1.01 mW/g, SAR (10g): 0.595 mW/g, (Worst-case extrapolation)
Coarse: Dx = 15.0, Dy = 15.0, Dz = 10.0
Penetration depth: 10.6 (10.2, 11.1) [mm]
Powerdrift: -0.04 dB

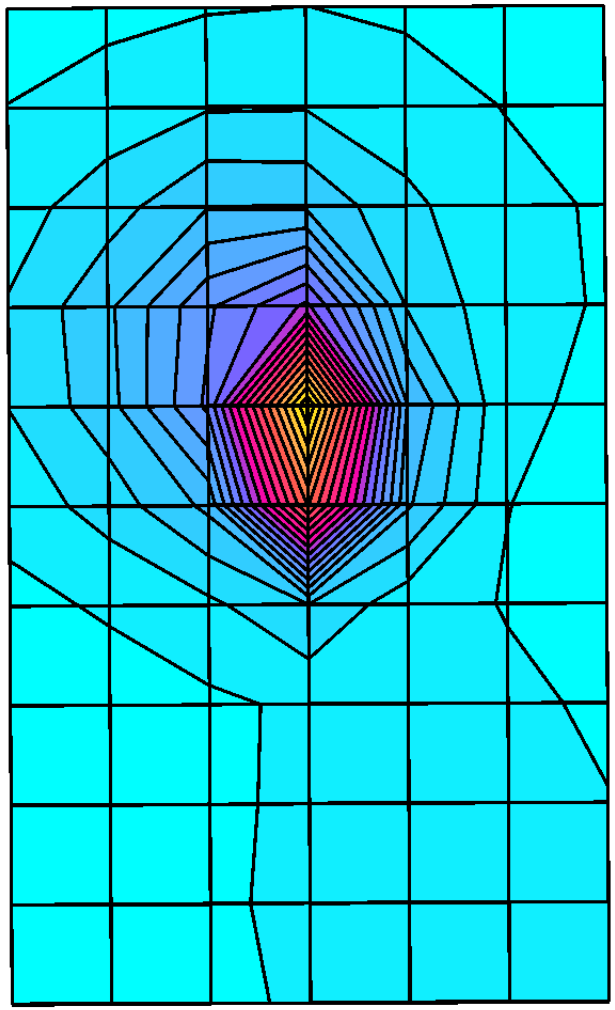


04/28/04 10:45

338CA46B

Ch# 1175 / Pwr Step:always up Antenna Position: ret
Type of Modulation:1900 cdma Battery Model #: SNN5695A
Accessory Model # = SYN8763B UNIVERSAL CLIP

R1 Amy Twin Phantom Rev.4 (22Aug02) Phantom; section 2 Section; Position: (0°,0°); Frequency: 1910 MHz
Probe: ES3DV3 - SN3037 - FCC Body; ConvF(4.70,4.70,4.70); Crest factor: 1.0; 1880 MHz Head & Body: σ = 1.58 mho/m ε_r = 50.9 ρ = 1.00 g/cm^3
Cube 7x7x7: SAR (1g): 0.964 mW/g, SAR (10g): 0.489 mW/g, (Worst-case extrapolation)
Coarse: Dx = 15.0, Dy = 15.0, Dz = 10.0
Penetration depth: 8.9 (8.6, 9.5) [mm]
Powerdrift: -0.23 dB

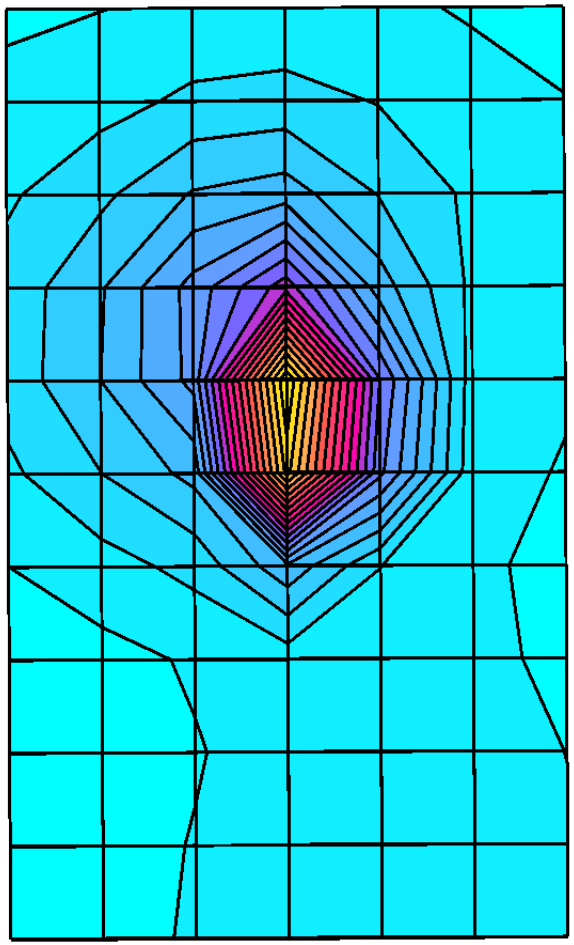


04/29/04 01:09

338CA46B

Ch# 1175 / Pwr Step: ALWAYS UP Antenna Position: RET
Type of Modulation:1900 CDMA Battery Model #: EXT BATTERY
Accessory Model # = SYN9766 CASE SYN8763A UNIVERSAL BELT CLIP

R1 Amy Twin Phantom Rev.4 (22Aug02) Phantom; section 2 Section; Position: (0°,0°); Frequency: 1910 MHz
Probe: ES3DV3 - SN3037 - FCC Body; ConvF(4.70,4.70,4.70); Crest factor: 1.0; 1880 MHz Head & Body: σ = 1.58 mho/m ε_r = 50.9 ρ = 1.00 g/cm^3
Cube 7x7x7: SAR (1g): 0.839 mW/g, SAR (10g): 0.424 mW/g, (Worst-case extrapolation)
Coarse: Dx = 15.0, Dy = 15.0, Dz = 10.0
Penetration depth: 9.3 (9.1, 9.7) [mm]
Powerdrift: -0.11 dB

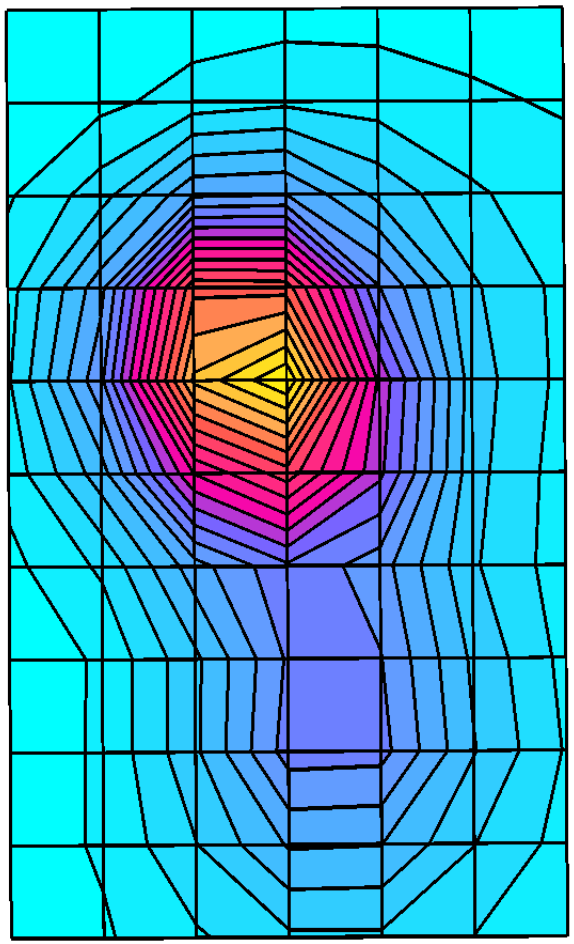


04/28/04 20:23

338CA46B

Ch# 1175 / Pwr Step: ALWAYS UP
Antenna Position: RET
Type of Modulation:1900 CDMA
Battery Model #: SNN5695A
Accessory Model # = SYN0912A Plastic Holder

R1 Amy Twin Phantom Rev.4 (22Aug02) Phantom; section 2 Section; Position: (0°,0°); Frequency: 1910 MHz
Probe: ES3DV3 - SN3037 - FCC Body; ConvF(4.70,4.70,4.70); Crest factor: 1.0; 1880 MHz Head & Body: σ = 1.58 mho/m ε_r = 50.9 ρ = 1.00 g/cm^3
Cube 7x7x7: SAR (1g): 0.920 mW/g, SAR (10g): 0.552 mW/g, (Worst-case extrapolation)
Coarse: Dx = 15.0, Dy = 15.0, Dz = 10.0
Penetration depth: 10.0 (10.0, 10.2) [mm]
Powerdrift: -0.26 dB

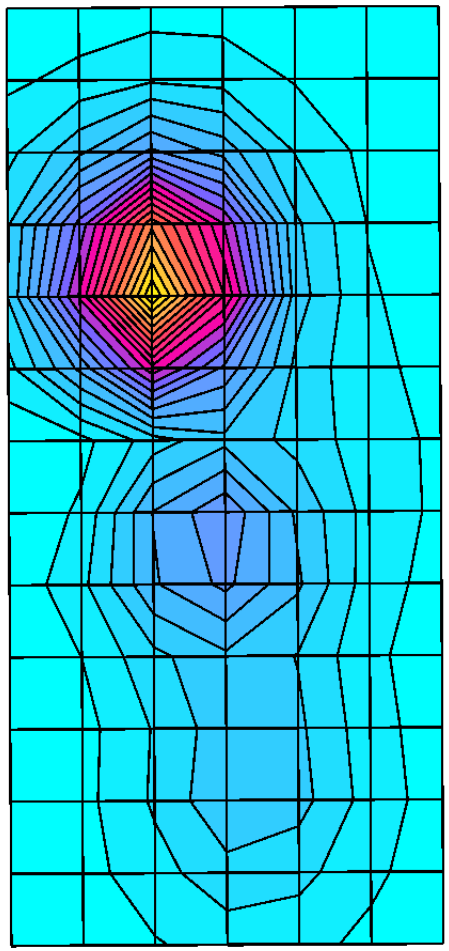


04/28/04 23:17

338CA46B

Ch# 1175 / Pwr Step: ALWAYS UP
Antenna Position: EXT
Type of Modulation:1900 CDMA
Battery Model #: SNN5695A
Accessory Model # = SYN0912A Plastic Holder

R1 Amy Twin Phantom Rev.4 (22Aug02) Phantom; section 2 Section; Position: (0°,0°); Frequency: 1910 MHz
Probe: ES3DV3 - SN3037 - FCC Body; ConvF(4.70,4.70,4.70); Crest factor: 1.0; 1880 MHz Head & Body: σ = 1.58 mho/m ε_r = 50.9 ρ = 1.00 g/cm^3
Cube 7x7x7: SAR (1g): 1.07 mW/g, SAR (10g): 0.612 mW/g, (Worst-case extrapolation)
Coarse: Dx = 15.0, Dy = 15.0, Dz = 10.0
Penetration depth: 9.8 (9.4, 10.5) [mm]
Powerdrift: -0.08 dB

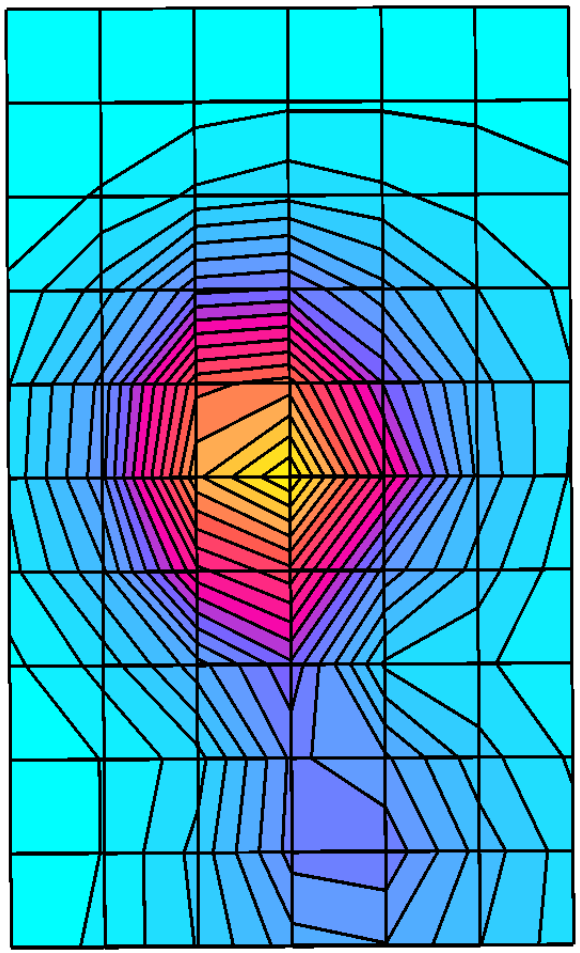


04/28/04 13:58

338CA46B

Ch# 1175 / Pwr Step:always up Antenna Position:RET
Type of Modulation:1900 cdma Battery Model #: SNN5695A
Accessory Model # = CHYN4459 LEATHER CASE

R1 Amy Twin Phantom Rev.4 (22Aug02) Phantom; section 2 Section; Position: (0°,0°); Frequency: 1910 MHz
Probe: ES3DV3 - SN3037 - FCC Body; ConvF(4.70,4.70,4.70); Crest factor: 1.0; 1880 MHz Head & Body: σ = 1.58 mho/m ε_r = 50.9 ρ = 1.00 g/cm^3
Cube 7x7x7: SAR (1g): 0.791 mW/g, SAR (10g): 0.472 mW/g, (Worst-case extrapolation)
Coarse: Dx = 15.0, Dy = 15.0, Dz = 10.0
Penetration depth: 10.1 (9.7, 10.7) [mm]
Powerdrift: -0.15 dB

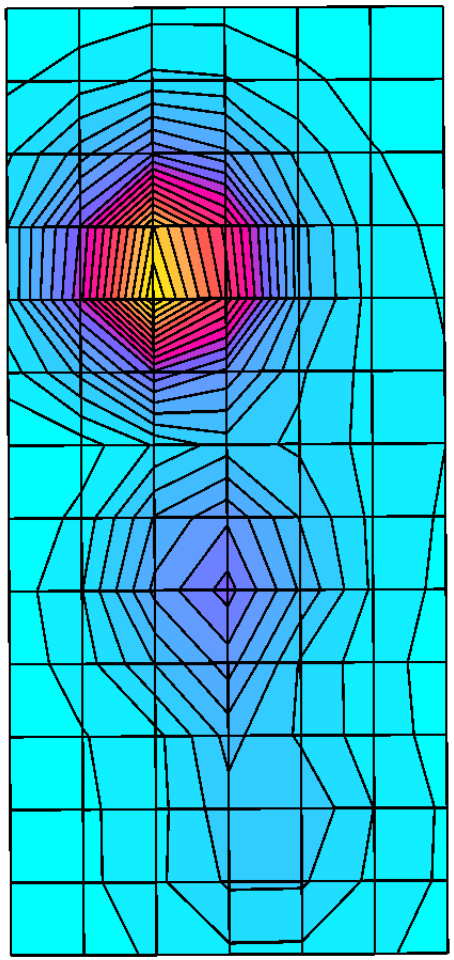


04/28/04 17:57

338CA46B

Ch# 1175 / Pwr Step: ALWAYS UP
Antenna Position: EXT
Type of Modulation:1900 CDMA
Battery Model #: SNN5695A
Accessory Model # = CHYN4459 LEATHER CASE

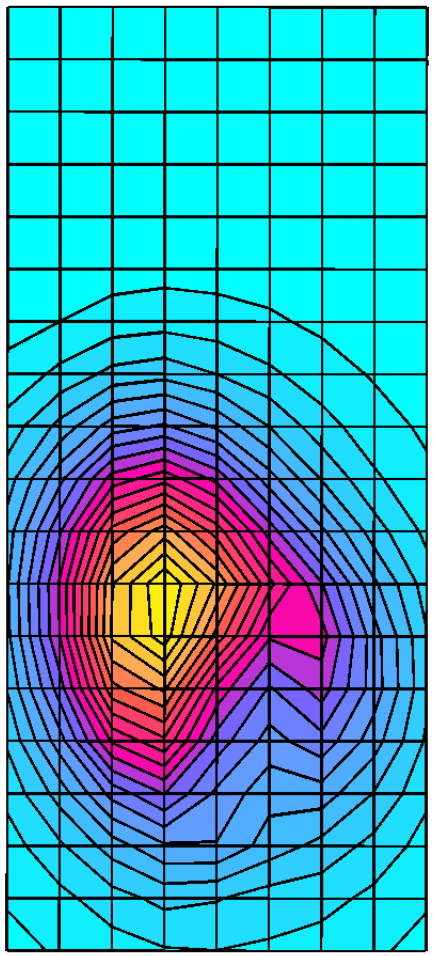
R1 Amy Twin Phantom Rev.4 (22Aug02) Phantom; section 2 Section; Position: (0°,0°); Frequency: 1910 MHz
Probe: ES3DV3 - SN3037 - FCC Body; ConvF(4.70,4.70,4.70); Crest factor: 1.0; 1880 MHz Head & Body: σ = 1.58 mho/m ε_r = 50.9 ρ = 1.00 g/cm^3
Cube 7x7x7: SAR (1g): 0.984 mW/g, SAR (10g): 0.569 mW/g, (Worst-case extrapolation)
Coarse: Dx = 15.0, Dy = 15.0, Dz = 10.0
Penetration depth: 10.0 (9.8, 10.5) [mm]
Powerdrift: -0.06 dB



338CA46B

Ch# 1013 / Pwr Step: ALWAYS UP Antenna Position: Retracted
Type of Modulation: 800 CDMA Battery Model #: SNN5695A
Accessory Model # =Leather Pouch CHYN4459

R1 Amy Twin Phantom Rev.4 (22Aug02) Phantom; section 1 Section; Position: (0°,0°); Frequency: 825 MHz
Probe: ES3DV3 - SN3037 - FCC Body; ConvF(5.90,5.90,5.90); Crest factor: 1.0; 835 MHz Head & Body: $\sigma = 0.98$ mho/m $\varepsilon_r = 55.4$ $\rho = 1.00$ g/cm^3
Cube 7x7x7: SAR (1g): 0.651 mW/g, SAR (10g): 0.417 mW/g, (Worst-case extrapolation)
Coarse: Dx = 10.0, Dy = 10.0, Dz = 10.0
Penetration depth: 12.4 (11.5, 13.7) [mm]
Powerdrift: 0.06 dB

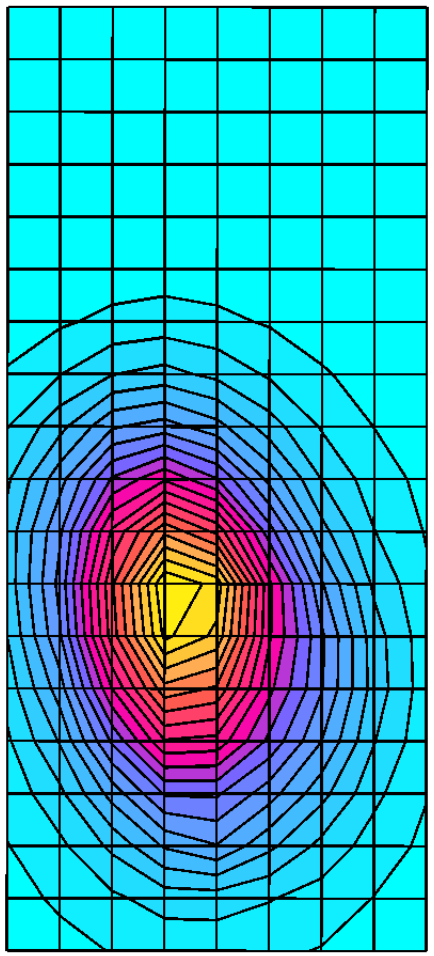


04/26/04 19:54

338CA46B

Ch# 777 / Pwr Step: ALWAYS UP Antenna Position: Retracted
Type of Modulation: 800 CDMA Battery Model #: SNN5695A
Accessory Model # =Leather Pouch CHYN4459

R1 Amy Twin Phantom Rev.4 (22Aug02) Phantom; section 1 Section; Position: (0°,0°); Frequency: 848 MHz
Probe: ES3DV3 - SN3037 - FCC Body; ConvF(5.90,5.90,5.90); Crest factor: 1.0; 835 MHz Head & Body: $\sigma = 0.98$ mho/m $\varepsilon_r = 55.4$ $\rho = 1.00$ g/cm^3
Cube 7x7x7: SAR (1g): 0.827 mW/g, SAR (10g): 0.515 mW/g, (Worst-case extrapolation)
Coarse: Dx = 10.0, Dy = 10.0, Dz = 10.0
Penetration depth: 11.9 (10.6, 13.6) [mm]
Powerdrift: -0.14 dB



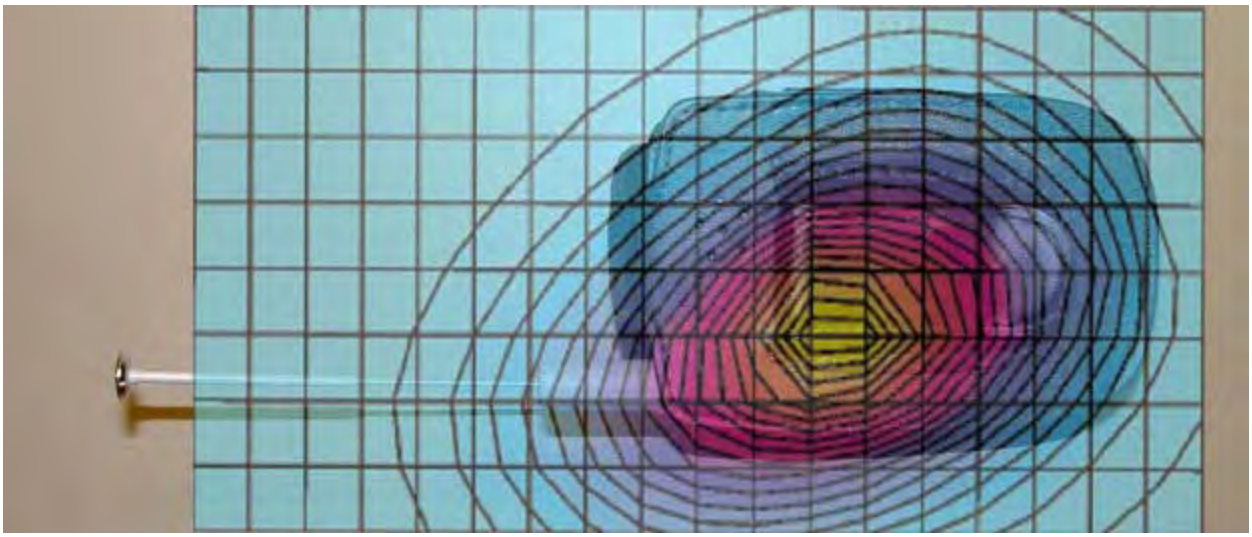


Figure 9.Typical 800 MHz Body-Worn Contour Overlaid on Phone with Antenna Extended

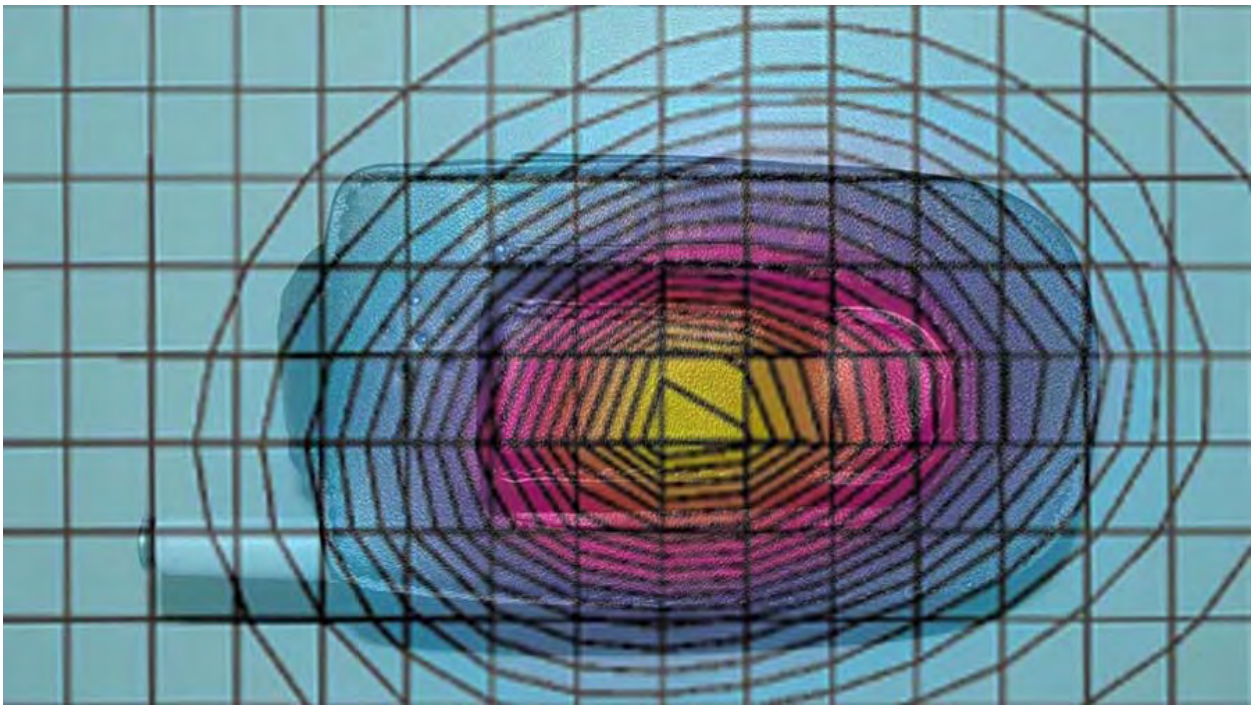


Figure 10. Typical 800 MHz Body-Worn Contour Overlaid on Phone with Antenna Retracted

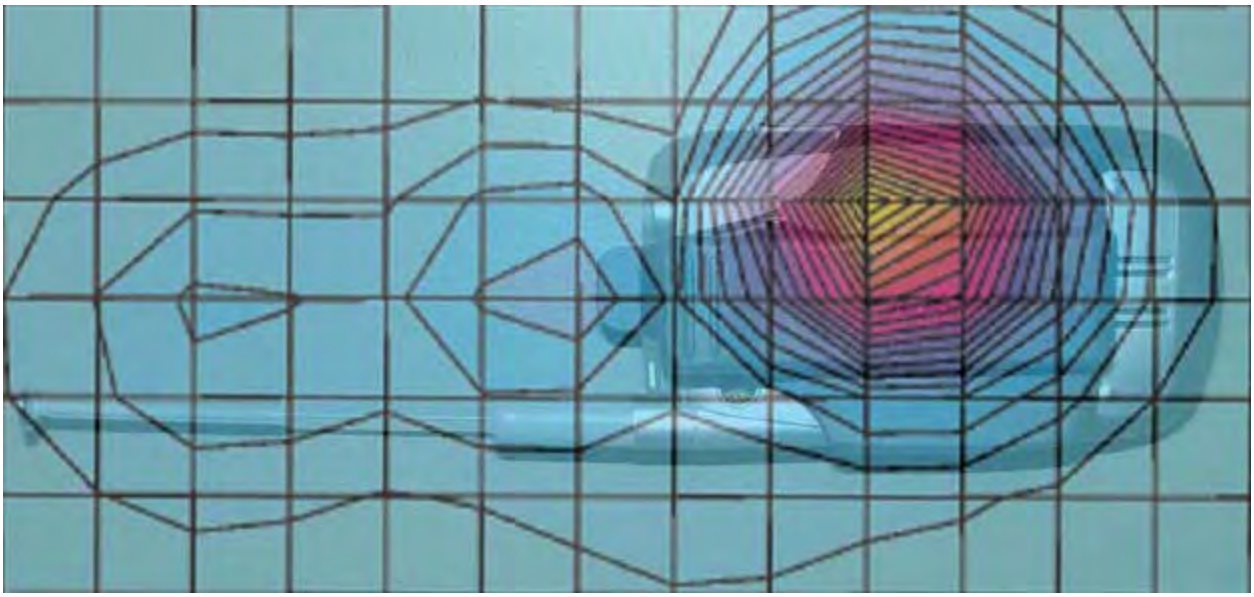


Figure 11.Typical 1900 MHz Body-Worn Contour Overlaid on Phone with Antenna Extended

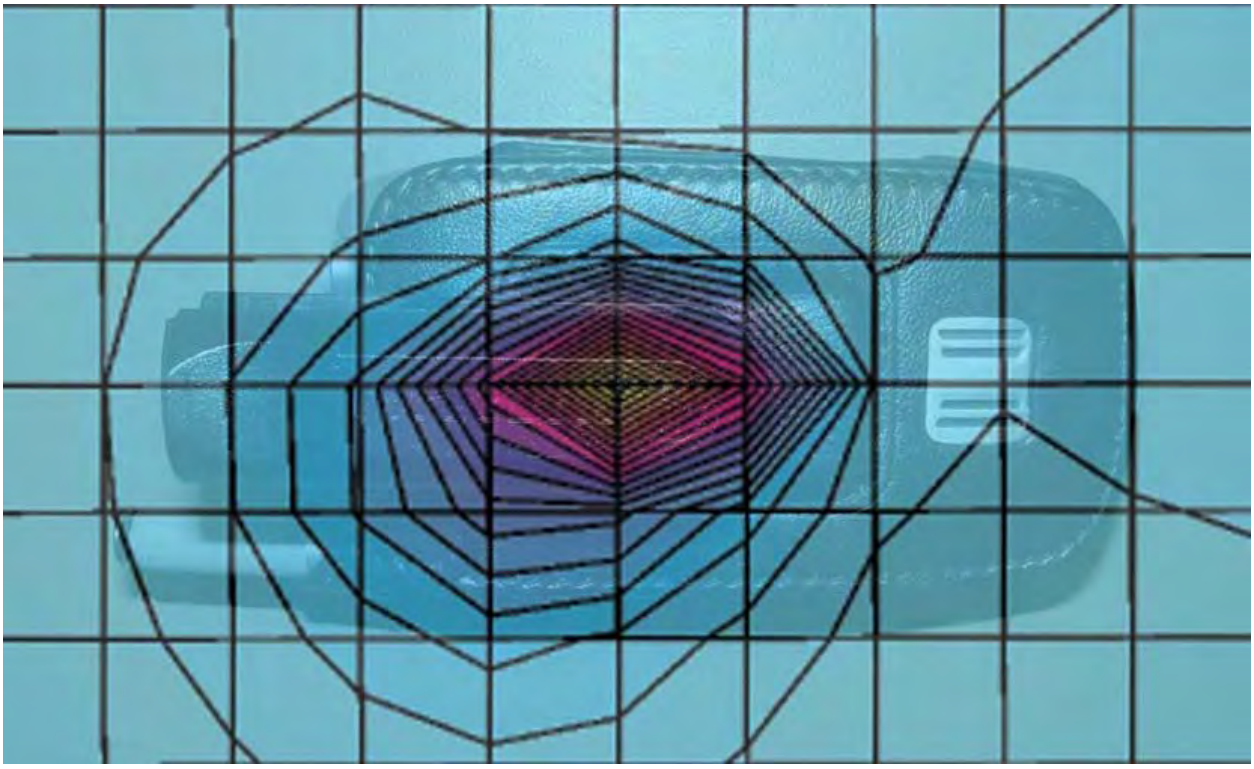


Figure 12.Typical 1900 MHz Body-Worn Contour Overlaid on Phone with Antenna Retracted

Appendix 4

Probe Calibration Certificate

Calibration Laboratory of
Schmid & Partner
Engineering AG
Zeughausstrasse 43, 8004 Zurich, Switzerland

Client Motorola MRO

CALIBRATION CERTIFICATE

Object(s) ES3DV3 - SN 3037

Calibration procedure(s) QA CAL-01.v2
Calibration procedure for dosimetric E-field probes

Calibration date: October 10, 2003

Condition of the calibrated item In Tolerance (according to the specific calibration document)

This calibration statement documents traceability of M&TE used in the calibration procedures and conformity of the procedures with the ISO/IEC 17025 international standard.

All calibrations have been conducted in the closed laboratory facility: environment temperature 22 +/- 2 degrees Celsius and humidity < 75%.

Calibration Equipment used (M&TE critical for calibration)

Model Type	ID #	Cal Date (Calibrated by, Certificate No.)	Scheduled Calibration
Power meter EPM E4419B	GB41293874	2-Apr-03 (METAS, No 252-0250)	Apr-04
Power sensor E4412A	MY41495277	2-Apr-03 (METAS, No 252-0250)	Apr-04
Reference 20 dB Attenuator	SN: 5086 (20b)	3-Apr-03 (METAS No. 251-0340	Apr-04
Fluke Process Calibrator Type 702	SN: 6295803	8-Sep-03 (Sintrel SCS No. E-030020)	Sep-04
Power sensor HP 8481A	MY41092180	18-Sep-02 (Agilent, No. 20020918)	In house check: Oct 03
RF generator HP 8684C	US3642U01700	4-Aug-99 (SPEAG, in house check Aug-02)	In house check: Aug-05
Network Analyzer HP 8753E	US37390585	18-Oct-01 (Agilent, No. 24BR1033101)	In house check: Oct 03

	Name	Function	Signature
Calibrated by:	Katja Pokovic	Laboratory Director	
Approved by:	Fin Bomholt	R&D Director	

Date issued: October 10, 2003

This calibration certificate is issued as an intermediate solution until the accreditation process (based on ISO/IEC 17025 International Standard) for Calibration Laboratory of Schmid & Partner Engineering AG is completed.

Schmid & Partner Engineering AG
s p e a g
Zeughausstrasse 43, 8004 Zurich, Switzerland
Phone +41 1 245 9700, Fax +41 1 245 9779
info@speag.com, http://www.speag.com

Probe ES3DV3

SN:3037

Manufactured: August 21, 2003
Last calibration: October 10, 2003

Calibrated for DASY Systems

(Note: non-compatible with DASY2 system!)

DASY - Parameters of Probe: ES3DV3 SN:3037

Sensitivity in Free Space

Diode Compression

NormX	**1.13** $\mu V/(V/m)^2$	DCP X	**100**	mV
NormY	**0.85** $\mu V/(V/m)^2$	DCP Y	**100**	mV
NormZ	**0.95** $\mu V/(V/m)^2$	DCP Z	**100**	mV

Sensitivity in Tissue Simulating Liquid

Head **900 MHz** ε_r **= 41.5 ± 5%** σ **= 0.97 ± 5% mho/m**

Valid for f=800-1000 MHz with Head Tissue Simulating Liquid according to EN 50361, P1528-200X

ConvF X	**6.1** ± 9.5% (k=2)	Boundary effect:	
ConvF Y	**6.1** ± 9.5% (k=2)	Alpha	**0.31**
ConvF Z	**6.1** ± 9.5% (k=2)	Depth	**1.75**

Head **1800 MHz** ε_r **= 40.0 ± 5%** σ **= 1.40 ± 5% mho/m**

Valid for f=1710-1910 MHz with Head Tissue Simulating Liquid according to EN 50361, P1528-200X

ConvF X	**4.9** ± 9.5% (k=2)	Boundary effect:	
ConvF Y	**4.9** ± 9.5% (k=2)	Alpha	**0.24**
ConvF Z	**4.9** ± 9.5% (k=2)	Depth	**2.68**

Boundary Effect

Head **900 MHz** **Typical SAR gradient: 5 % per mm**

Probe Tip to Boundary		**1 mm**	**2 mm**
SAR_{be} [%]	Without Correction Algorithm	6.0	3.0
SAR_{be} [%]	With Correction Algorithm	0.1	0.3

Head **1800 MHz** **Typical SAR gradient: 10 % per mm**

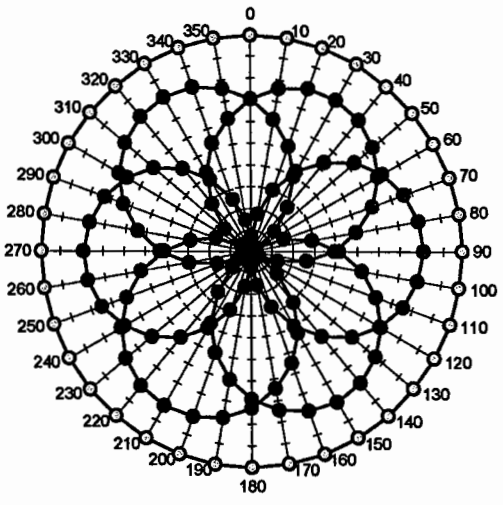
Probe Tip to Boundary		**1 mm**	**2 mm**
SAR_{be} [%]	Without Correction Algorithm	8.5	5.5
SAR_{be} [%]	With Correction Algorithm	0.1	0.2

Sensor Offset

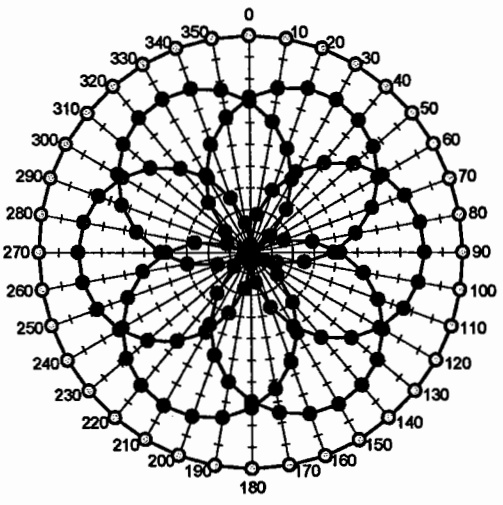
Probe Tip to Sensor Center	**2.0**	mm

Receiving Pattern (ϕ , θ = 0°

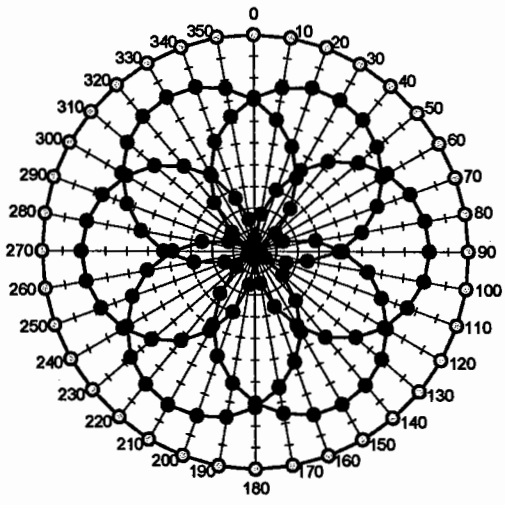
f = 30 MHz, TEM cell ifi110



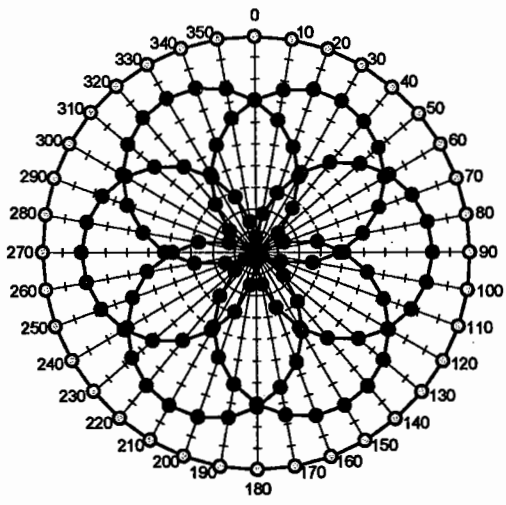
f = 100 MHz, TEM cell ifi110

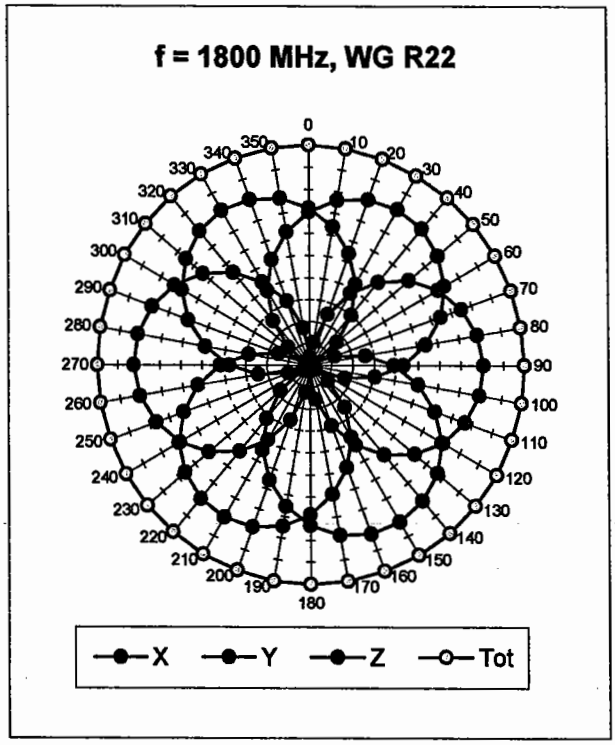


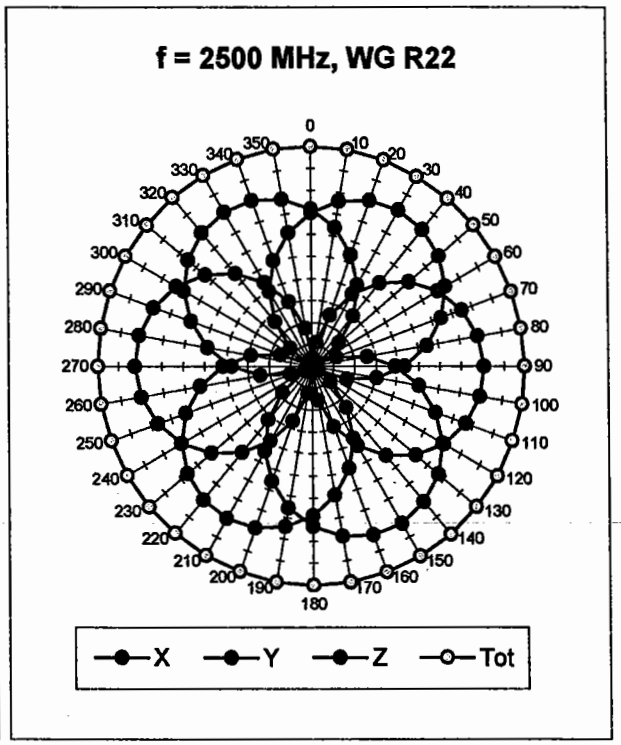
f = 300 MHz, TEM cell ifi110



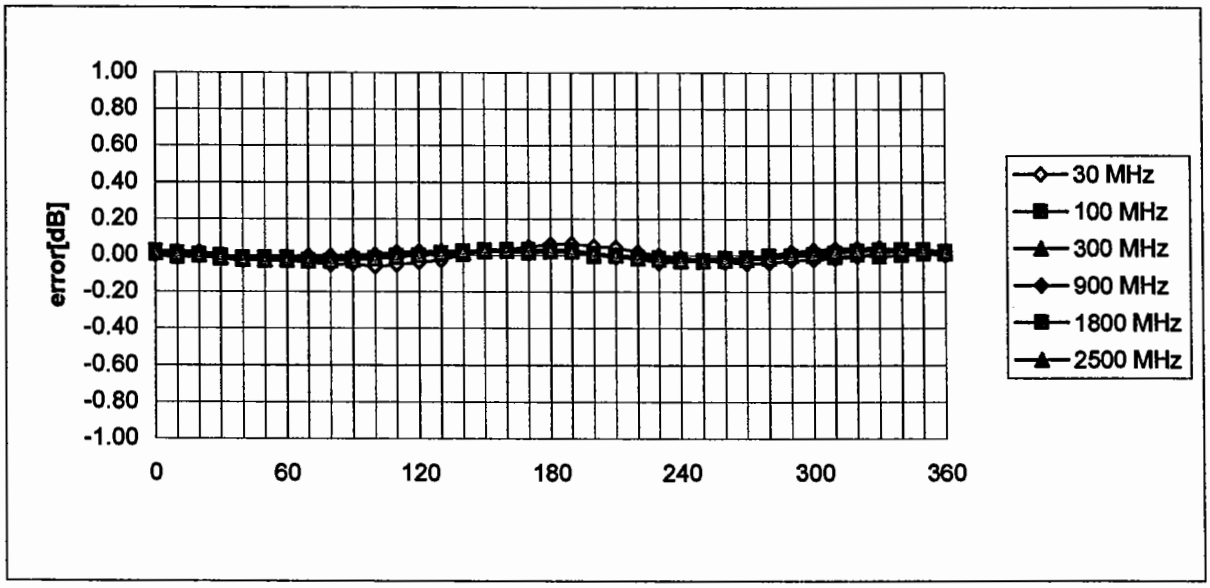
f = 900 MHz, TEM cell ifi110





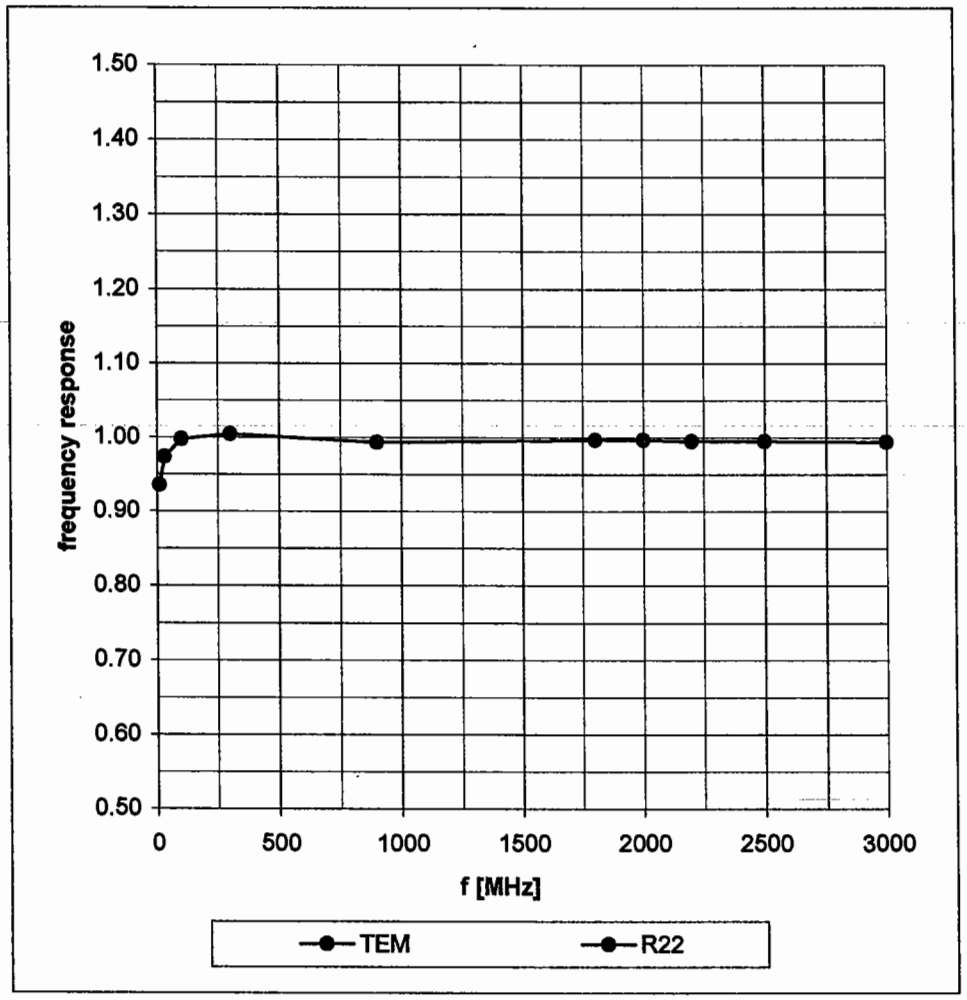


Isotropy Error (ϕ), θ = 0°



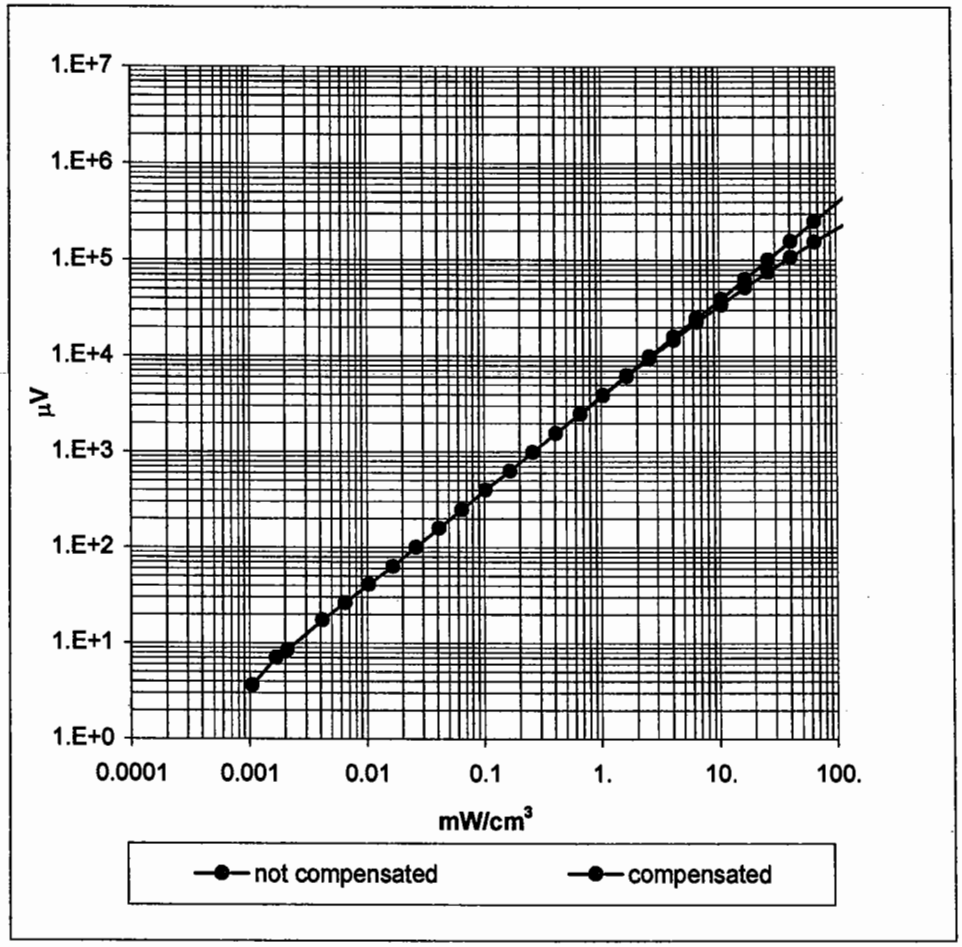
Frequency Response of E-Field

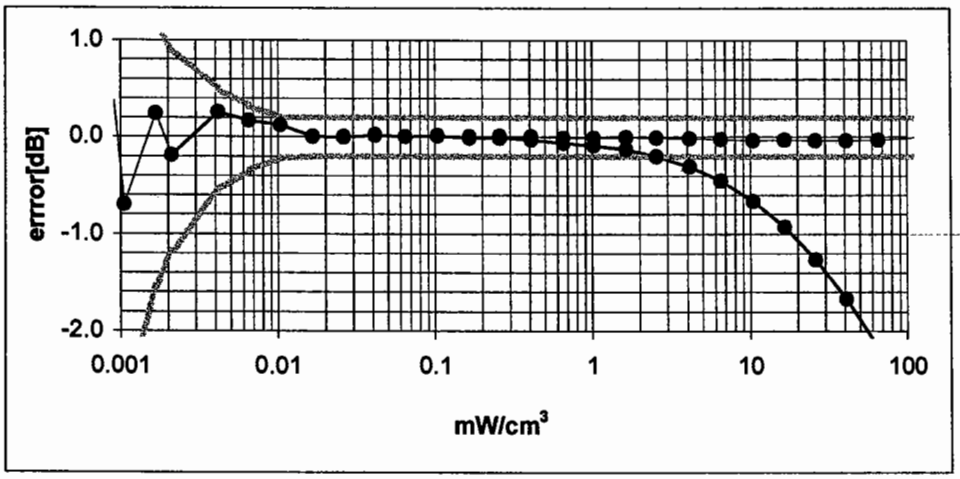
(TEM-Cell:ifi110, Waveguide R22)



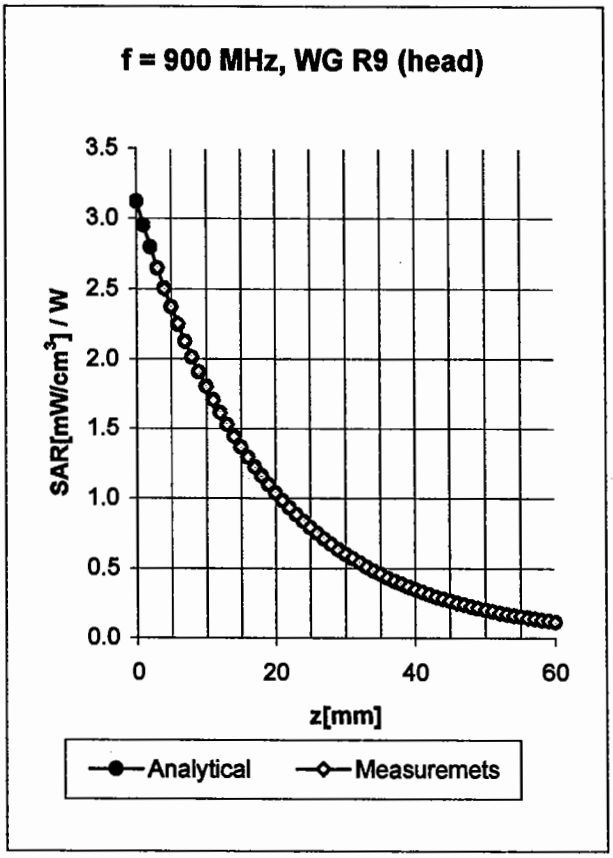
Dynamic Range f(SAR_{brain})

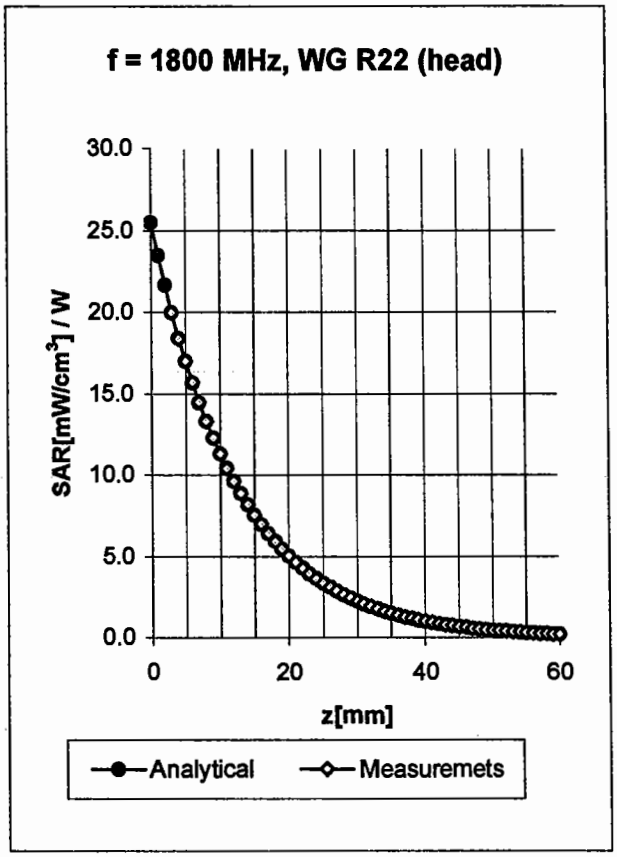
(Waveguide R22)





Conversion Factor Assessment





Head **900 MHz** ε_r **= 41.5 ± 5%** σ **= 0.97 ± 5% mho/m**

Valid for f=800-1000 MHz with Head Tissue Simulating Liquid according to EN 50361, P1528-200X

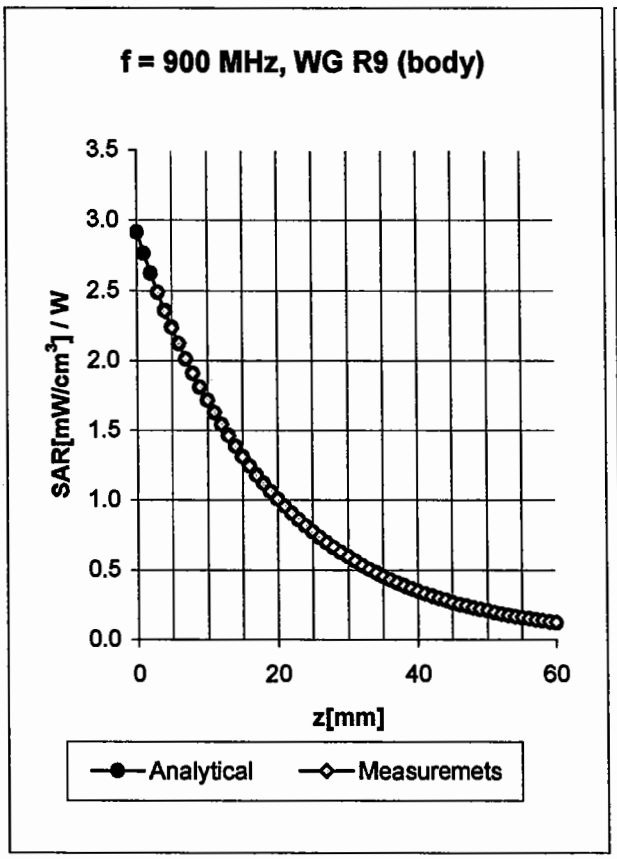
ConvF X	**6.1** ± 9.5% (k=2)	Boundary effect:	
ConvF Y	**6.1** ± 9.5% (k=2)	Alpha	**0.31**
ConvF Z	**6.1** ± 9.5% (k=2)	Depth	**1.75**

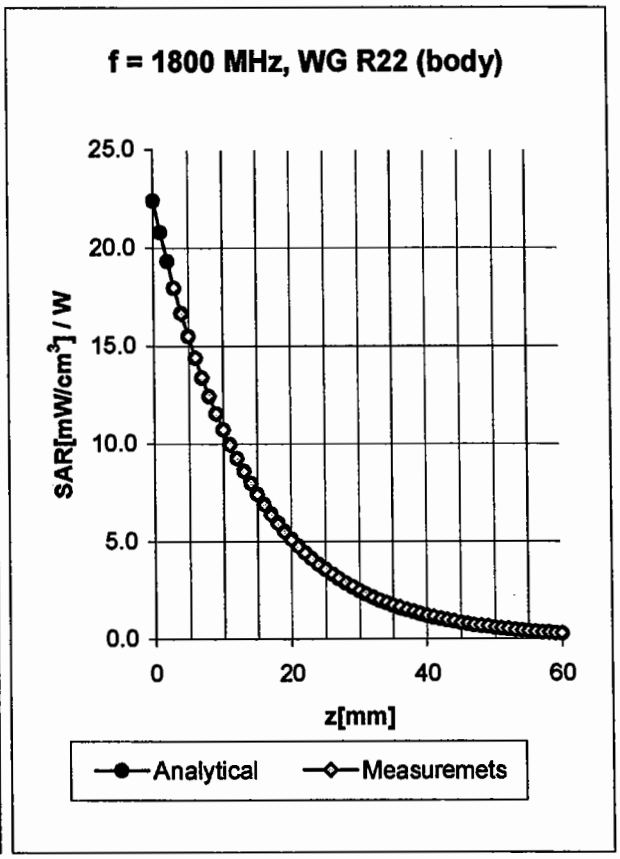
Head **1800 MHz** ε_r **= 40.0 ± 5%** σ **= 1.40 ± 5% mho/m**

Valid for f=1710-1910 MHz with Head Tissue Simulating Liquid according to EN 50361, P1528-200X

ConvF X	**4.9** ± 9.5% (k=2)	Boundary effect:	
ConvF Y	**4.9** ± 9.5% (k=2)	Alpha	**0.24**
ConvF Z	**4.9** ± 9.5% (k=2)	Depth	**2.68**

Conversion Factor Assessment





Body **900 MHz** ε_r **= 55.0 ± 5%** σ **= 1.05 ± 5% mho/m**

Valid for f=800-1000 MHz with Body Tissue Simulating Liquid according to OET 65 Suppl. C

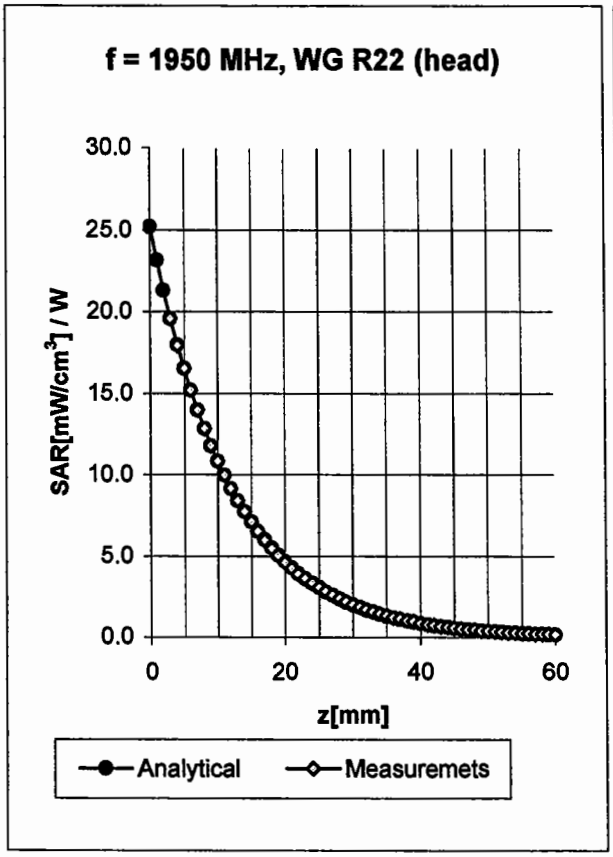
ConvF X	**5.9** ± 9.5% (k=2)	Boundary effect:	
ConvF Y	**5.9** ± 9.5% (k=2)	Alpha	**0.29**
ConvF Z	**5.9** ± 9.5% (k=2)	Depth	**1.91**

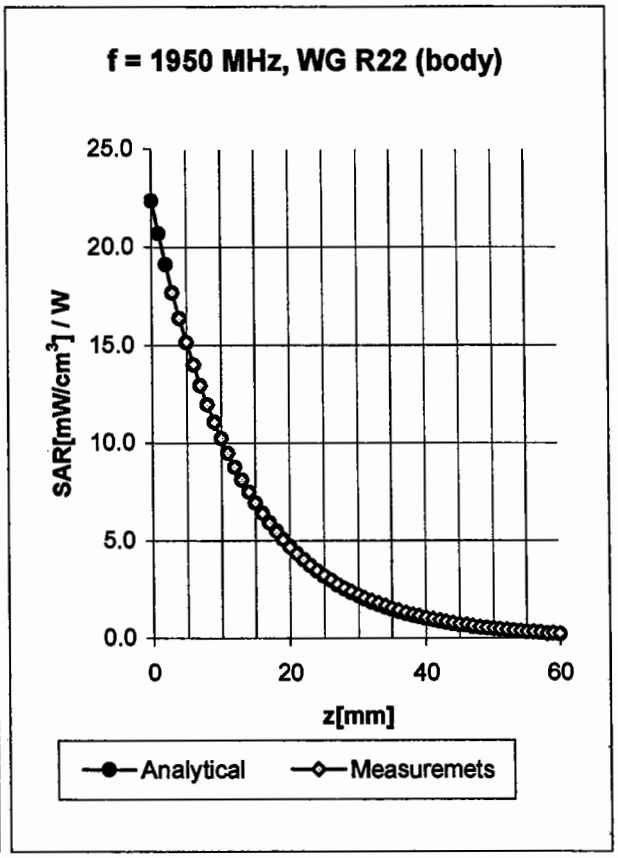
Body **1800 MHz** ε_r **= 53.3 ± 5%** σ **= 1.52 ± 5% mho/m**

Valid for f=1710-1910 MHz with Body Tissue Simulating Liquid according to OET 65 Suppl. C

ConvF X	**4.7** ± 9.5% (k=2)	Boundary effect:	
ConvF Y	**4.7** ± 9.5% (k=2)	Alpha	**0.25**
ConvF Z	**4.7** ± 9.5% (k=2)	Depth	**2.80**

Conversion Factor Assessment





Head **1950 MHz** $\varepsilon_r = 40.0 \pm 5\%$ $\sigma = 1.40 \pm 5\%$ mho/m

Valid for f=1900-2000 MHz with Head Tissue Simulating Liquid according to EN 50361, P1528-200X

ConvF X	**4.7** ± 9.5% (k=2)	Boundary effect:	
ConvF Y	**4.7** ± 9.5% (k=2)	Alpha	**0.28**
ConvF Z	**4.7** ± 9.5% (k=2)	Depth	**2.26**

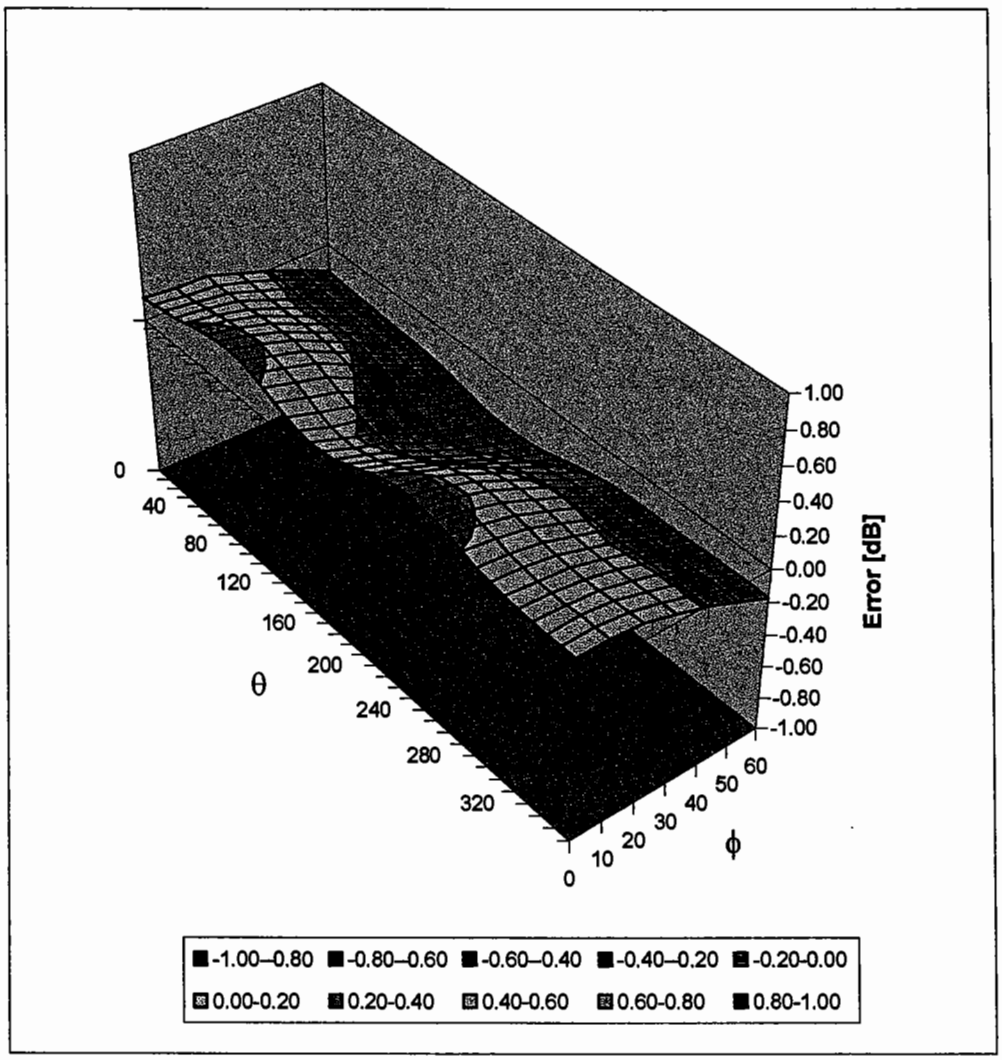
Body **1950 MHz** $\varepsilon_r = 53.3 \pm 5\%$ $\sigma = 1.52 \pm 5\%$ mho/m

Valid for f=1900-2000 MHz with Body Tissue Simulating Liquid according to OET 65 Suppl. C

ConvF X	**4.5** ± 9.5% (k=2)	Boundary effect:	
ConvF Y	**4.5** ± 9.5% (k=2)	Alpha	**0.31**
ConvF Z	**4.5** ± 9.5% (k=2)	Depth	**2.24**

Deviation from Isotropy in HSL

Error ($\theta\phi$), f = 900 MHz



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Appendix 5

Dipole Characterization Certificate

Certification of System Performance Check Targets

Based on APP-0396

-Historical Data-

	835MHz	900MHz	1800MHz	1900MHz	
IEEE1528 Target: Advanced Extrapolation	9.5	10.8	38.1	39.7	**(W/kg)**
Measurement Uncertainty (k=1):	9.0%	9.0%	9.0%	9.0%	
Measurement Period:	*1-July-03 to 1-Apr-04*	*1-July-03 to 1-Apr-04*	*1-July-03 to 1-Apr-04*	*1-July-03 to 1-Apr-04*	
# of tests performed:	214	1148	1135	62	
Grand Average: Worst Case Extrapolation	10.0	11.4	40.7	42.0	**(W/kg)**
% Delta (Average - IEEE1528 Target)	5.3%	5.6%	6.8%	5.8%	
Is % Delta <= Measurement Uncertainty?	**Yes**	**Yes**	**Yes**	**Yes**	
Accept/Reject Average as new system performance check target?	**ACCEPT**	**ACCEPT**	**ACCEPT**	**ACCEPT**	
	Applicable 835MHz Dipole Serial Numbers:	**Applicable 900MHz Dipole Serial Numbers:**	**Applicable 1800MHz Dipole Serial Numbers:**	**Applicable 1900Mhz Dipole Serial Numbers:**	
	420(TR), 421(TR)	77, 78	246(TR), 250(TR)	514(TR), 518(TR)	
	422(TR), 423(TR)	79, 80	251(TR), 258(TR)	519(TR), 520(TR)	
	424(TR), 425(TR)	91, 92	259(TR), 262(TR)	523(TR), 524(TR)	
	431(TR), 432(TR)	93, 94	263(TR), 271(TR)	526(TR), 527(TR)	
	433(TR), 434(TR)	95, 96	272(TR), 273(TR)	528(TR), 529(TR)	
	436(TR)	97, 55	276(TR), 277(TR)	530(TR), 533(TR)	
			279(TR), 280(TR)		
			281(TR), 282(TR)		
			283(TR), 284(TR)		

-New System Performance Check Targets- per APP-0396

(based on analysis of historical data)

Frequency	SAR Target (W/kg)	Permittivity	Conductivity (S/m)
835MHz	**10.0**	41.5 ± 5%	0.90 ± 5%
900MHz	**11.4**	41.5 ± 5%	0.97 ± 5%
1800MHz	**40.7**	40.0 ± 5%	1.40 ± 5%
1900MHz	**42.0**	40.0 ± 5%	1.40 ± 5%

-Approvals-

Submitted by: Marge Kaunas Date: 2-Apr-04

Signed: Marge Kaunas

Comments: Spreadsheet detailing all historical measurements available upon request.

Approved by: Mark Douglas **Date:** 2-Apr-04

Signed: Mark Douglas

Comments: Targets and associated simulant properties are derived from the IEEE 1528 standard.

Appendix 6

Measurement Uncertainty Budget

Uncertainty Budget for Device Under Test

a	*b*	*c*	*d*	*e = f(d,k)*	*f*	*g*	*h = c x f / e*	*i = c x g / e*	*k*
Uncertainty Component	**Sec.**	**Tol. (± %)**	**Prob. Dist.**	**Div.**	**c_i (1 g)**	**c_i (10 g)**	**1 g u_i (±%)**	**10 g u_i (±%)**	**v_i**
Measurement System									
Probe Calibration	E.2.1	9.5	N	2.00	1	1	4.8	4.8	∞
Axial Isotropy	E.2.2	4.7	R	1.73	0.707	0.707	1.9	1.9	∞
Spherical Isotropy	E.2.2	9.6	R	1.73	0.707	0.707	3.9	3.9	∞
Boundary Effect	E.2.3	5.8	R	1.73	1	1	3.3	3.3	∞
Linearity	E.2.4	4.7	R	1.73	1	1	2.7	2.7	∞
System Detection Limits	E.2.5	1.0	R	1.73	1	1	0.6	0.6	∞
Readout Electronics	E.2.6	1.0	N	1.00	1	1	1.0	1.0	∞
Response Time	E.2.7	0.8	R	1.73	1	1	0.5	0.5	∞
Integration Time	E.2.8	1.3	R	1.73	1	1	0.8	0.8	∞
RF Ambient Conditions	E.6.1	3.0	R	1.73	1	1	1.7	1.7	∞
Probe Positioner Mechanical Tolerance	E.6.2	0.3	R	1.73	1	1	0.2	0.2	∞
Probe Positioning with respect to Phantom Shell	E.6.3	1.1	R	1.73	1	1	0.6	0.6	∞
Extrapolation, interpolation and Integration Algorithms for Max. SAR Evaluation	E.5	3.9	R	1.73	1	1	2.3	2.3	∞
Test sample Related									
Test Sample Positioning	E.4.2	3.6	N	1.00	1	1	3.6	3.6	29
Device Holder Uncertainty	E.4.1	2.8	N	1.00	1	1	2.8	2.8	8
Output Power Variation - SAR drift measurement	6.6.2	5.0	R	1.73	1	1	2.9	2.9	∞
Phantom and Tissue Parameters									
Phantom Uncertainty (shape and thickness tolerances)	E.3.1	4.0	R	1.73	1	1	2.3	2.3	∞
Liquid Conductivity - deviation from target values	E.3.2	5.0	R	1.73	0.64	0.43	1.8	1.2	∞
Liquid Conductivity - measurement uncertainty	E.3.3	10.0	R	1.73	0.64	0.43	3.7	2.5	∞
Liquid Permittivity - deviation from target values	E.3.2	10.0	R	1.73	0.6	0.49	3.5	2.8	∞
Liquid Permittivity - measurement uncertainty	E.3.3	5.0	R	1.73	0.6	0.49	1.7	1.4	∞
Combined Standard Uncertainty			RSS				11.72	11.09	1363
Expanded Uncertainty (95% CONFIDENCE LEVEL)			*k* =2				22.98	21.75	

Uncertainty Budget for System Performance Check (dipole & flat phantom)

a	*b*	*c*	*d*	*e = f(d,k)*	*f*	*g*	*h = c x f / e*	*i = c x g / e*	*k*
Uncertainty Component	Sec.	**Tol. (± %)**	**Prob. Dist.**	**Div.**	**c_i (1 g)**	**c_i (10 g)**	**1 g u_i (±%)**	**10 g u_i (±%)**	v_i
Measurement System									
Probe Calibration	E.2.1	9.5	N	2.00	1	1	4.8	4.8	∞
Axial Isotropy	E.2.2	4.7	R	1.73	1	1	2.7	2.7	∞
Spherical Isotropy	E.2.2	9.6	R	1.73	0	0	0.0	0.0	∞
Boundary Effect	E.2.3	5.8	R	1.73	1	1	3.3	3.3	∞
Linearity	E.2.4	4.7	R	1.73	1	1	2.7	2.7	∞
System Detection Limits	E.2.5	1.0	R	1.73	1	1	0.6	0.6	∞
Readout Electronics	E.2.6	1.0	N	1.00	1	1	1.0	1.0	∞
Response Time	E.2.7	0.0	R	1.73	1	1	0.0	0.0	∞
Integration Time	E.2.8	0.0	R	1.73	1	1	0.0	0.0	∞
RF Ambient Conditions	E.6.1	3.0	R	1.73	1	1	1.7	1.7	∞
Probe Positioner Mechanical Tolerance	E.6.2	0.3	R	1.73	1	1	0.2	0.2	∞
Probe Positioning with respect to Phantom Shell	E.6.3	1.1	R	1.73	1	1	0.6	0.6	∞
Extrapolation, interpolation and Integration Algorithms for Max. SAR Evaluation	E.5	3.9	R	1.73	1	1	2.3	2.3	∞
Dipole									
Dipole Axis to Liquid Distance	8, E.4.2	1.0	R	1.73	1	1	0.6	0.6	∞
Input Power and SAR Drift Measurement	8, 6.6.2	4.7	R	1.73	1	1	2.7	2.7	∞
Phantom and Tissue Parameters									
Phantom Uncertainty (shape and thickness tolerances)	E.3.1	4.0	R	1.73	1	1	2.3	2.3	∞
Liquid Conductivity - deviation from target values	E.3.2	5.0	R	1.73	0.64	0.43	1.8	1.2	∞
Liquid Conductivity - measurement uncertainty	E.3.3	10.0	R	1.73	0.64	0.43	3.7	2.5	∞
Liquid Permittivity - deviation from target values	E.3.2	10.0	R	1.73	0.6	0.49	3.5	2.8	∞
Liquid Permittivity - measurement uncertainty	E.3.3	5.0	R	1.73	0.6	0.49	1.7	1.4	∞
Combined Standard Uncertainty			RSS				10.16	9.43	99999
Expanded Uncertainty (95% CONFIDENCE LEVEL)			k=2				19.92	18.48	

Appendix 7

Photographs of the device under test

Figure 13.Front of Phone with Antenna Retracted

Figure 14.Front of Phone with Antenna Extended

Figure 15.Back of Phone with Antenna Retracted

Figure 16.Back of Phone with Antenna Extended

Figure 17.Open Phone with Antenna Retracted

Figure 18.Open Phone with Antenna Extended

Figure 19. Side View; Phone in CHYN4459A with Antenna Retracted

Figure 20. Side View; Phone in CHYN4459A with Antenna Extended

Figure 21. Side View; Phone in SYN0912A with Antenna Retracted

Figure 22. Side View; Phone in SYN0912A with Antenna Extended

Figure 23. Side View; Phone in SYN9766A and SYN8631A with Antenna Retracted

Figure 23. Side View; Phone in SYN9766A and SYN8631A with Antenna Extended

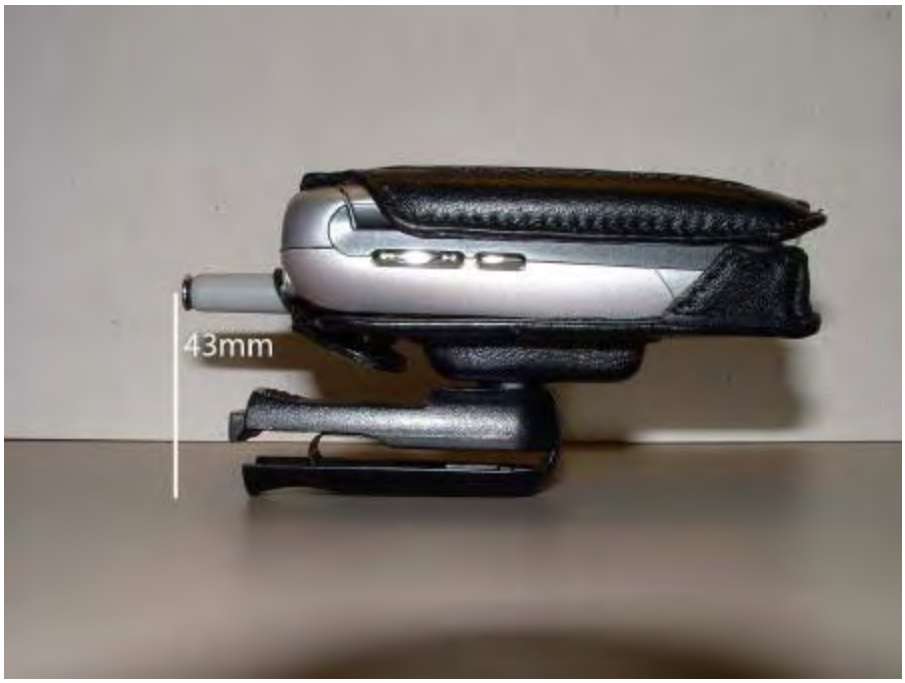

Figure 25. Side View; Phone in SYN9766A and SYN8763A with Antenna Retracted

Figure 26. Side View; Phone in SYN9766A and SYN8763A with Antenna Extended

Figure 27. Phone Against the Head with Antenna Retracted (Front View – Cheek Touch)

Figure 28. Phone Against the Head with Antenna Retracted (Back View – Cheek Touch)

Figure 29. Phone Against the Head with Antenna Extended (Front View – Cheek Touch)

Figure 30. Phone Against the Head with Antenna Extended (Back View – Cheek Touch)

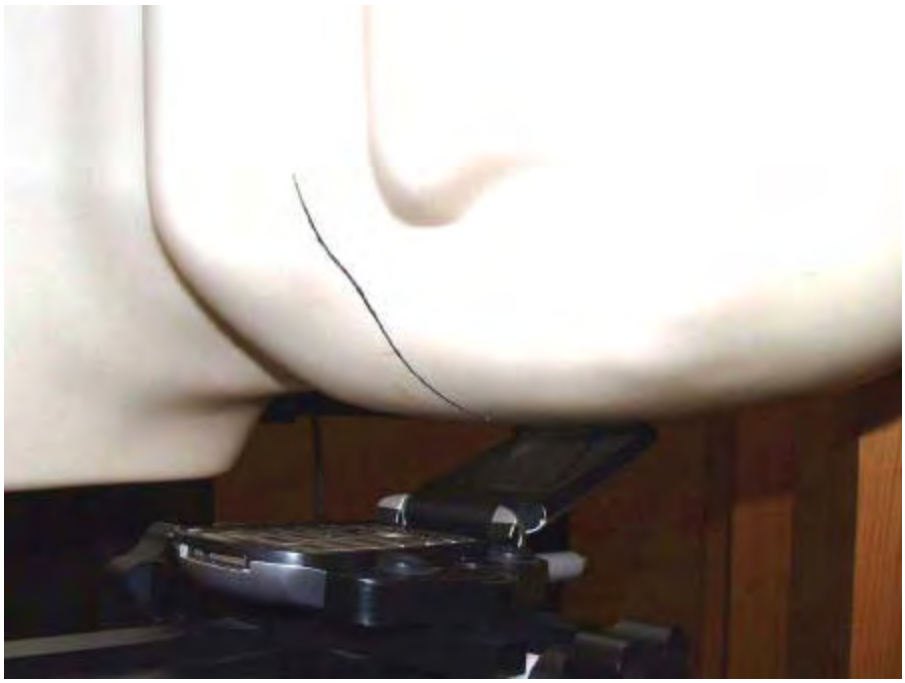

Figure 31. Phone Against the Head with Antenna Retracted (Front View – 15°Tilt)

Figure 32. Phone Against the Head with Antenna Retracted (Back View – 15°Tilt)

Figure 33. Phone Against the Head with Antenna Extended (Front View – 15°Tilt)

Figure 34. Phone Against the Head with Antenna Extended (Back View – 15°Tilt)

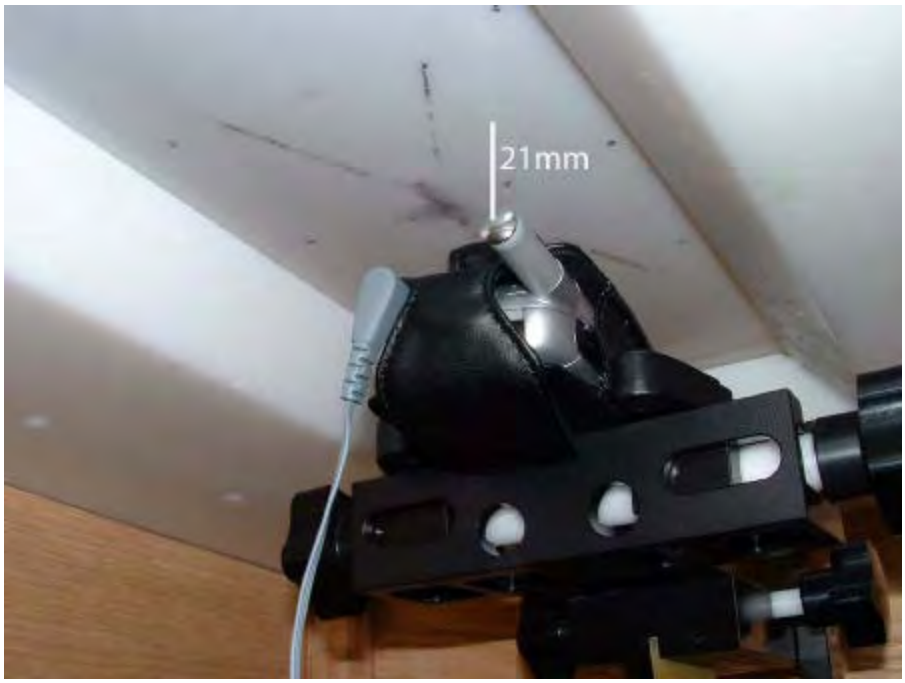

Figure 35. Phone in CHYN4459A Against the Flat Phantom with Antenna Retracted

Figure 36. Phone in CHYN4459A Against the Flat Phantom with Antenna Extended