APPENDIX B PLOTS OF THE SAR MEASUREMENTS

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

Table: 1600 MHz SAR Plots

Test Position	Antenna	Plot Number	Test Channel
Touch Left	Retracted	**1**	544
Touch Left	Extended	**2**	544
Tilted Left	Retracted	**3**	544
Z-axis graphs for plots 1 to 3			
Tilted Left	Extended	**4**	001
Tilted Left	Extended	**5**	544
Tilted Left	Extended	**6**	1087
Z-axis graphs for plots 4 to 6			
Touch Right	Retracted	**7**	544
Touch Right	Extended	**8**	544
Z-axis graphs for plots 7 and 8			
Tilted Right	Retracted	**9**	544
Tilted Right	Extended	**10**	544
Z-axis graphs for plot 9 and 10			

Table: SAR Validation Plots

Date	Plot Number	Frequency
16th Feb 2006	**11**	1640 MHz
17th Feb 2006	**12**	1640 MHz
Z-axis graphs for plot 11 and 12		

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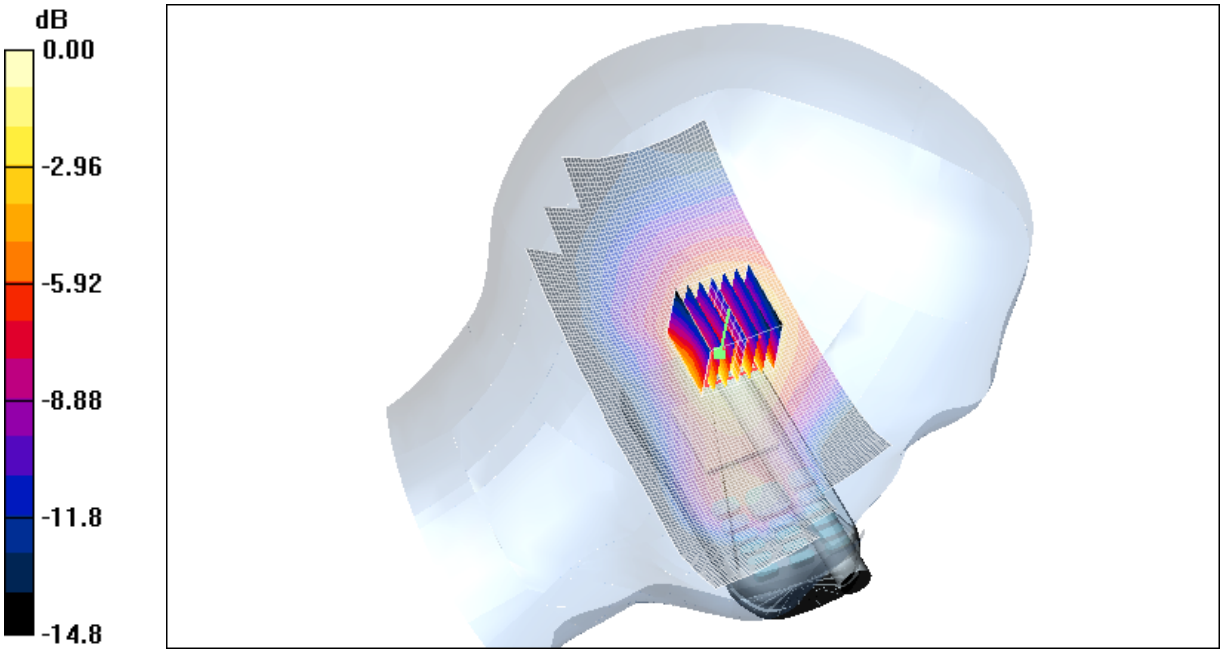
Test Date: 16 February 2006
File Name: Touch Left 1600 MHz (DAE442 Probe1380) 16-02-06.da4
DUT: Thuraya Satelite Phone; Type: SG-2520; Serial: IMEI:36601300-030053-6

* Communication System: 1640 MHz Satelite; Frequency: 1643 MHz; Duty Cycle: 1:8
* Medium parameters used: σ = 1.25216 mho/m, ε_r = 40.2643; ρ = 1000 kg/m^3
- Electronics: DAE3 Sn442; Probe: ET3DV6 - SN1380; ConvF(5.42, 5.42, 5.42)
- Phantom: SAM 22; Serial: 1260; Phantom section: Left Section

Channel 0544 Test/Area Scan (131x61x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.195 mW/g

Channel 0544 Test/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 7.24 V/m; Power Drift = 0.083 dB
Peak SAR (extrapolated) = 0.362 W/kg
SAR(1 g) = 0.187 mW/g; SAR(10 g) = 0.106 mW/g
Maximum value of SAR (measured) = 0.202 mW/g



0 dB = 0.202mW/g

SAR MEASUREMENT PLOT 1

Ambient Temperature	**21.2 Degrees Celsius**
Liquid Temperature	**20.9 Degrees Celsius**
Humidity	**64.0 %**

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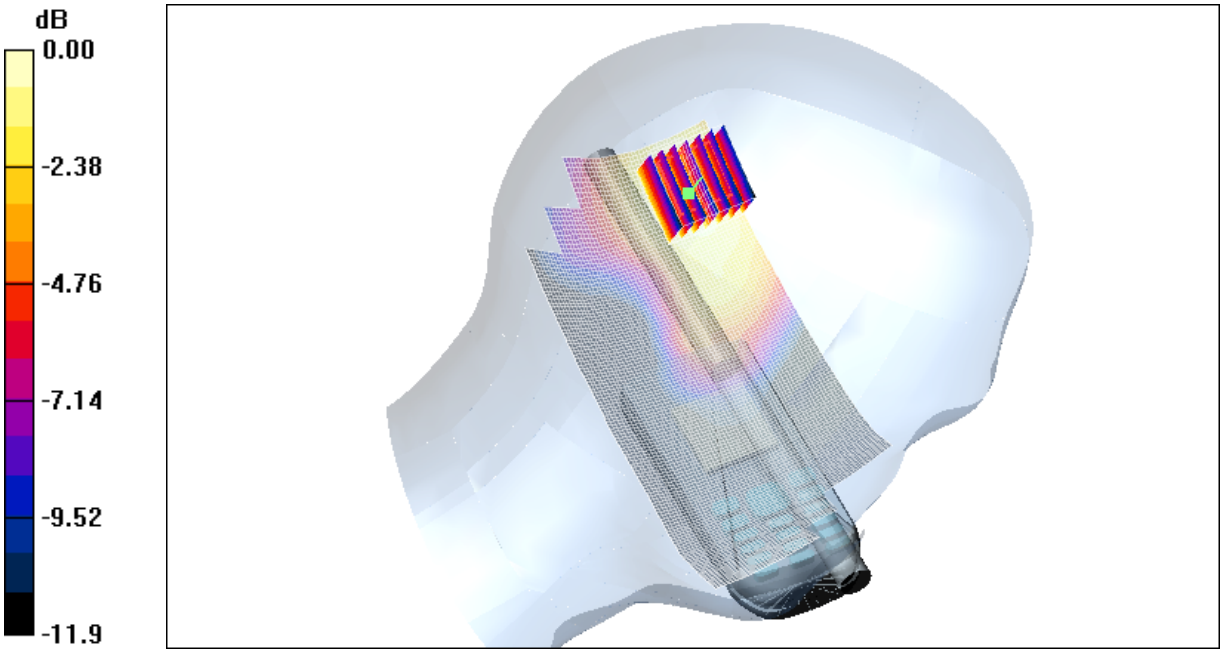
Test Date: 16 February 2006
File Name: Touch Left Extended Antenna 1600 MHz (DAE442 Probe1380) 16-02-06.da4
DUT: Thuraya Satelite Phone; Type: SG-2520; Serial: IMEI:36601300-030053-6

* Communication System: 1640 MHz Satelite; Frequency: 1643 MHz; Duty Cycle: 1:8
* Medium parameters used: σ = 1.25216 mho/m, ε_r = 40.2643; ρ = 1000 kg/m^3
- Electronics: DAE3 Sn442; Probe: ET3DV6 - SN1380; ConvF(5.42, 5.42, 5.42)
- Phantom: SAM 22; Serial: 1260; Phantom section: Left Section

Channel 0544 Test/Area Scan (171x61x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.089 mW/g

Channel 0544 Test/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 6.97 V/m; Power Drift = -0.061 dB
Peak SAR (extrapolated) = 0.152 W/kg
SAR(1 g) = 0.085 mW/g; SAR(10 g) = 0.055 mW/g
Maximum value of SAR (measured) = 0.091 mW/g



0 dB = 0.091mW/g

SAR MEASUREMENT PLOT 2

Ambient Temperature	**21.2 Degrees Celsius**
Liquid Temperature	**20.9 Degrees Celsius**
Humidity	**64.0 %**

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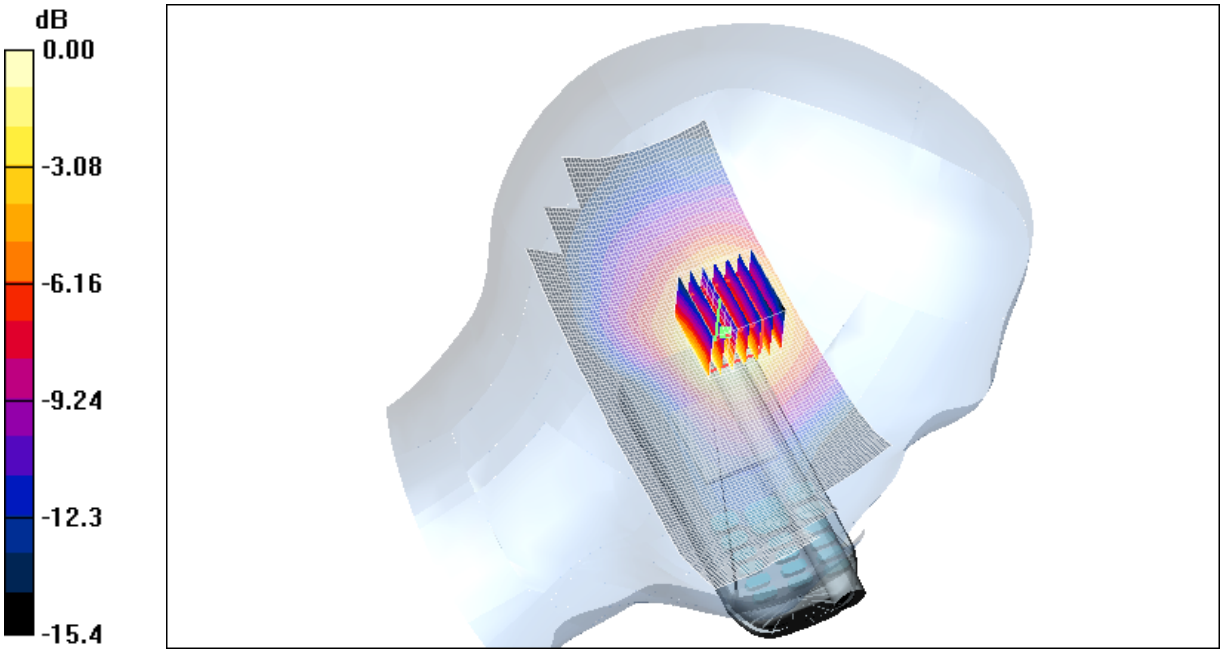
Test Date: 16 February 2006
File Name: Tilted Left 1600 MHz (DAE442 Probe1380) 16-02-06.da4
DUT: Thuraya Satelite Phone; Type: SG-2520; Serial: IMEI:36601300-030053-6

* Communication System: 1640 MHz Satelite; Frequency: 1643 MHz; Duty Cycle: 1:8
* Medium parameters used: σ = 1.25216 mho/m, ε_r = 40.2643; ρ = 1000 kg/m^3
- Electronics: DAE3 Sn442; Probe: ET3DV6 - SN1380; ConvF(5.42, 5.42, 5.42)
- Phantom: SAM 22; Serial: 1260; Phantom section: Left Section

Channel 0544 Test/Area Scan (131x61x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.210 mW/g

Channel 0544 Test/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 9.01 V/m; Power Drift = 0.00 dB
Peak SAR (extrapolated) = 0.461 W/kg
SAR(1 g) = 0.214 mW/g; SAR(10 g) = 0.121 mW/g
Maximum value of SAR (measured) = 0.235 mW/g



0 dB = 0.235mW/g

SAR MEASUREMENT PLOT 3

Ambient Temperature	**21.2 Degrees Celsius**
Liquid Temperature	**20.9 Degrees Celsius**
Humidity	**64.0 %**

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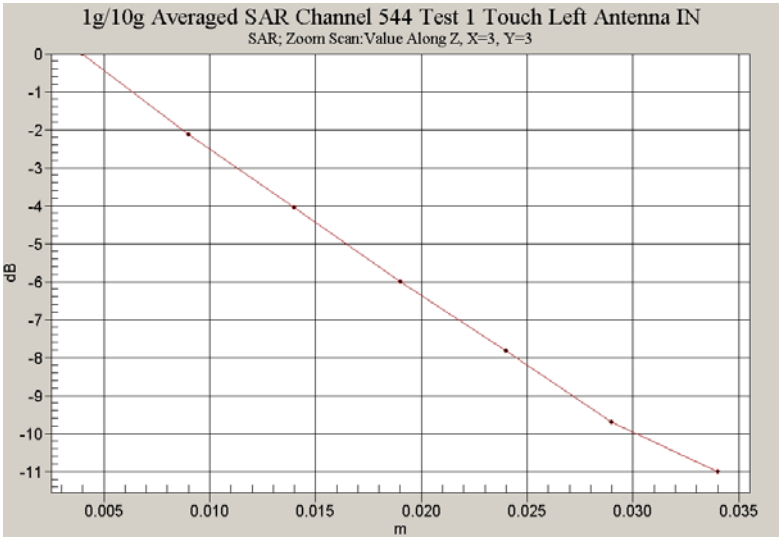
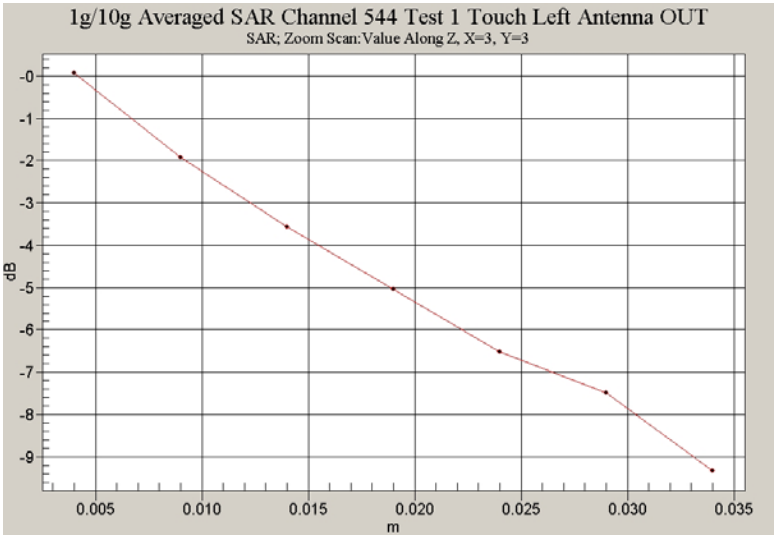
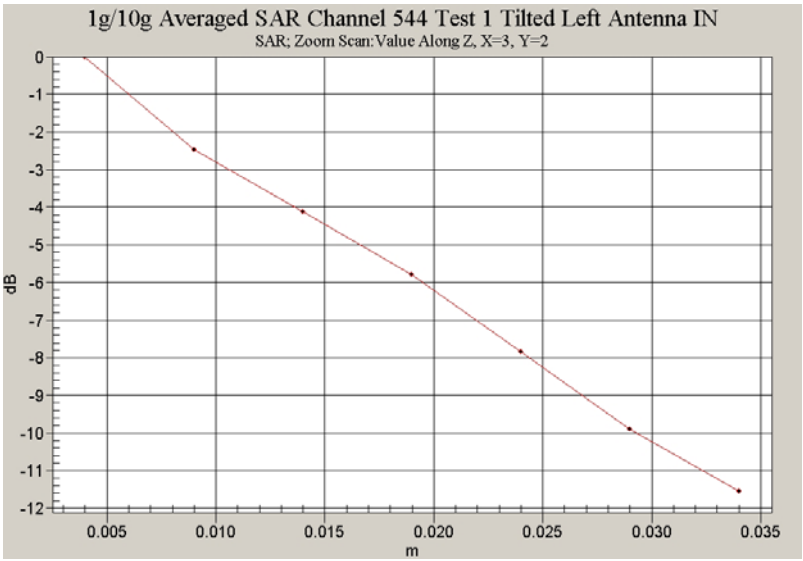
Z-Axis Graph for Plot 1



Z-Axis Graph for Plot 2



Z-Axis Graph for Plot 3



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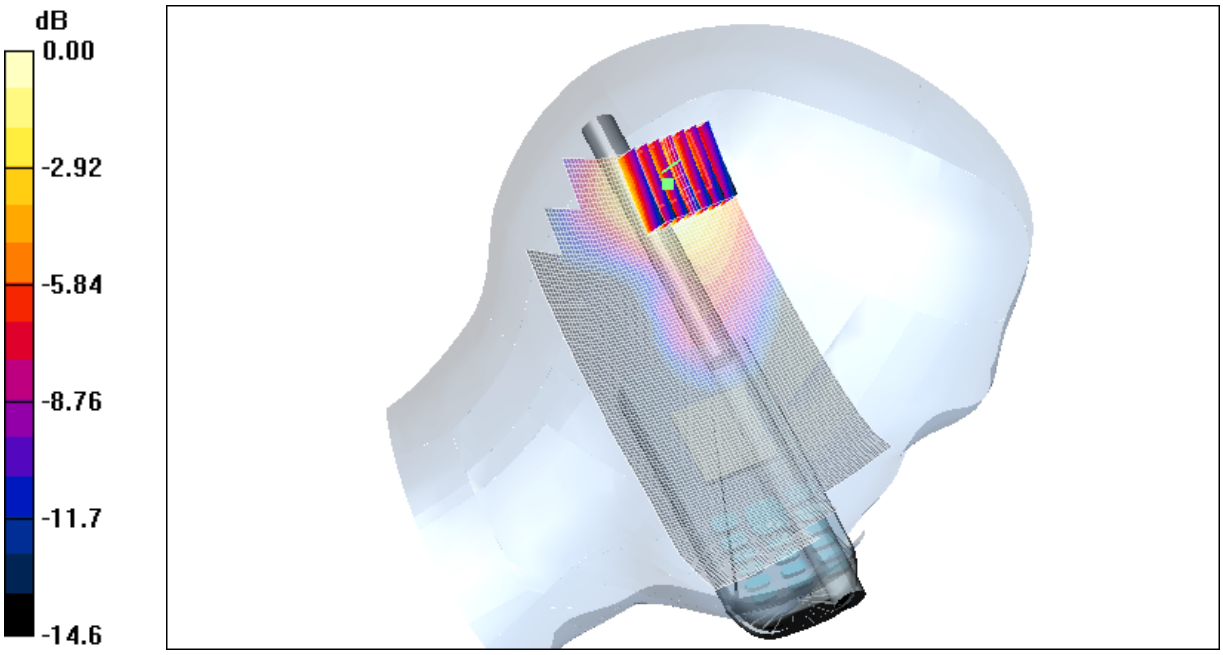
Test Date: 17 February 2006
File Name: Tilted Left Extended Antenna 1600 MHz (DAE442 Probe1380) 17-02-06.da4
DUT: Thuraya Satelite Phone; Type: SG-2520; Serial: IMEI:36601300-030053-6

* Communication System: 1640 MHz Satelite; Frequency: 1626 MHz; Duty Cycle: 1:8
* Medium parameters used: σ = 1.25009 mho/m, ε_r = 40.3675; ρ = 1000 kg/m^3
- Electronics: DAE3 Sn442; Probe: ET3DV6 - SN1380; ConvF(5.42, 5.42, 5.42)
- Phantom: SAM 22; Serial: 1260; Phantom section: Left Section

Channel 0001 Test/Area Scan (171x61x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.335 mW/g

Channel 0001 Test/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 8.84 V/m; Power Drift = 0.050 dB
Peak SAR (extrapolated) = 0.622 W/kg
SAR(1 g) = 0.330 mW/g; SAR(10 g) = 0.205 mW/g
Maximum value of SAR (measured) = 0.358 mW/g



0 dB = 0.358mW/g

SAR MEASUREMENT PLOT 4

Ambient Temperature	**21.7 Degrees Celsius**
Liquid Temperature	**21.2 Degrees Celsius**
Humidity	**62.0 %**

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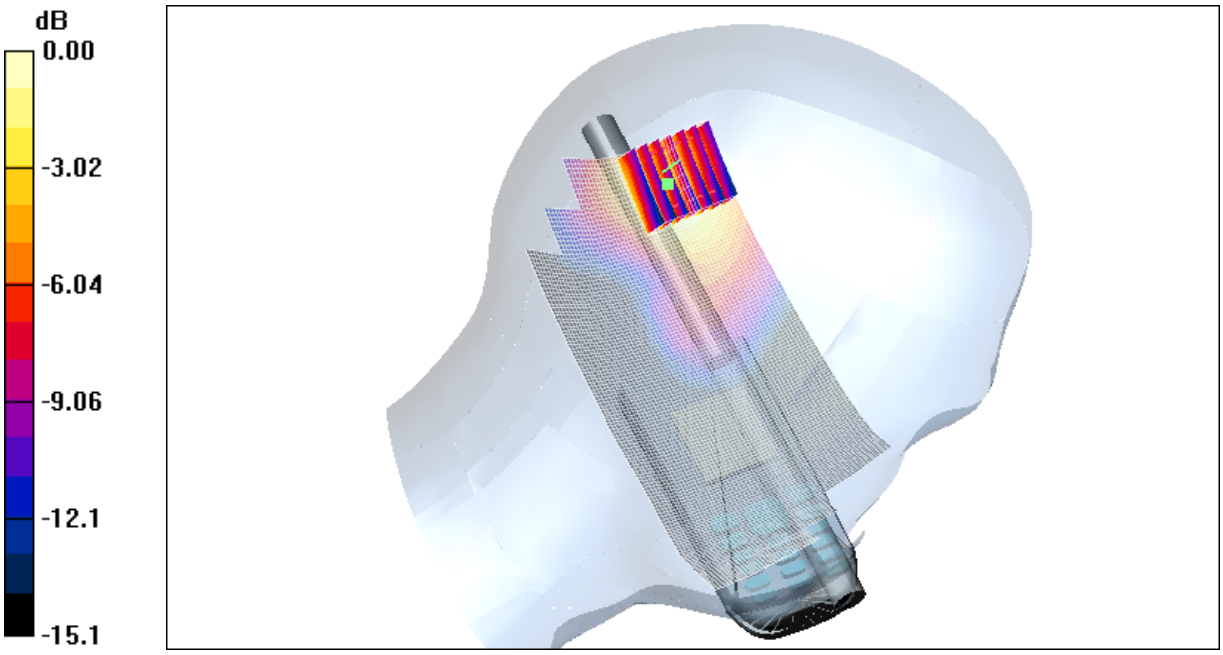
Test Date: 16 February 2006
File Name: Tilted Left Extended Antenna 1600 MHz (DAE442 Probe1380) 16-02-06.da4
DUT: Thuraya Satelite Phone; Type: SG-2520; Serial: IMEI:36601300-030053-6

* Communication System: 1640 MHz Satelite; Frequency: 1643 MHz; Duty Cycle: 1:8
* Medium parameters used: σ = 1.25216 mho/m, ε_r = 40.2643; ρ = 1000 kg/m^3
- Electronics: DAE3 Sn442; Probe: ET3DV6 - SN1380; ConvF(5.42, 5.42, 5.42)
- Phantom: SAM 22; Serial: 1260; Phantom section: Left Section

Channel 0544 Test/Area Scan (171x61x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.376 mW/g

Channel 0544 Test/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 9.33 V/m; Power Drift = 0.113 dB
Peak SAR (extrapolated) = 0.692 W/kg
SAR(1 g) = 0.372 mW/g; SAR(10 g) = 0.226 mW/g
Maximum value of SAR (measured) = 0.391 mW/g



0 dB = 0.391mW/g

SAR MEASUREMENT PLOT 5

Ambient Temperature	**21.2 Degrees Celsius**
Liquid Temperature	**20.9 Degrees Celsius**
Humidity	**64.0 %**

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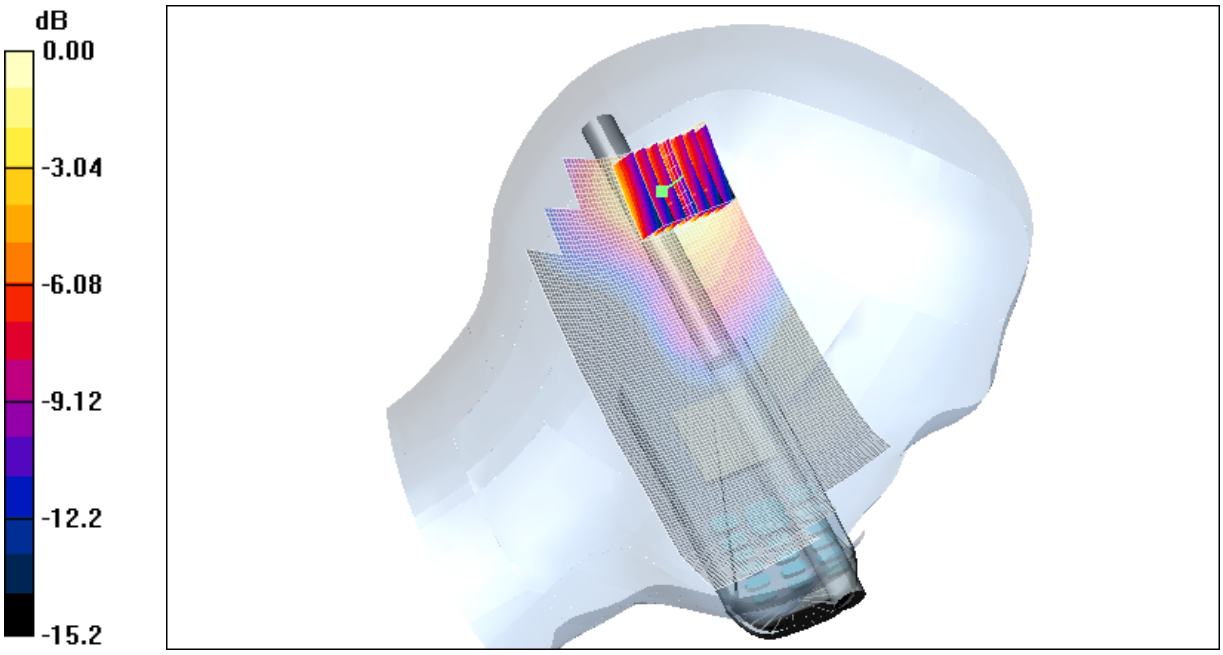
Test Date: 17 February 2006
File Name: Tilted Left Extended Antenna 1600 MHz (DAE442 Probe1380) 17-02-06.da4
DUT: Thuraya Satelite Phone; Type: SG-2520; Serial: IMEI:36601300-030053-6

* Communication System: 1640 MHz Satelite; Frequency: 1660 MHz; Duty Cycle: 1:8
* Medium parameters used: σ = 1.27584 mho/m, ε_r = 40.2056; ρ = 1000 kg/m^3
- Electronics: DAE3 Sn442; Probe: ET3DV6 - SN1380; ConvF(5.42, 5.42, 5.42)
- Phantom: SAM 22; Serial: 1260; Phantom section: Left Section

Channel 1087 Test/Area Scan (171x61x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.324 mW/g

Channel 1087 Test/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 8.80 V/m; Power Drift = -0.051 dB
Peak SAR (extrapolated) = 0.594 W/kg
SAR(1 g) = 0.315 mW/g; SAR(10 g) = 0.192 mW/g
Maximum value of SAR (measured) = 0.344 mW/g



0 dB = 0.344mW/g

SAR MEASUREMENT PLOT 6

Ambient Temperature	**21.7 Degrees Celsius**
Liquid Temperature	**21.2 Degrees Celsius**
Humidity	**62.0 %**

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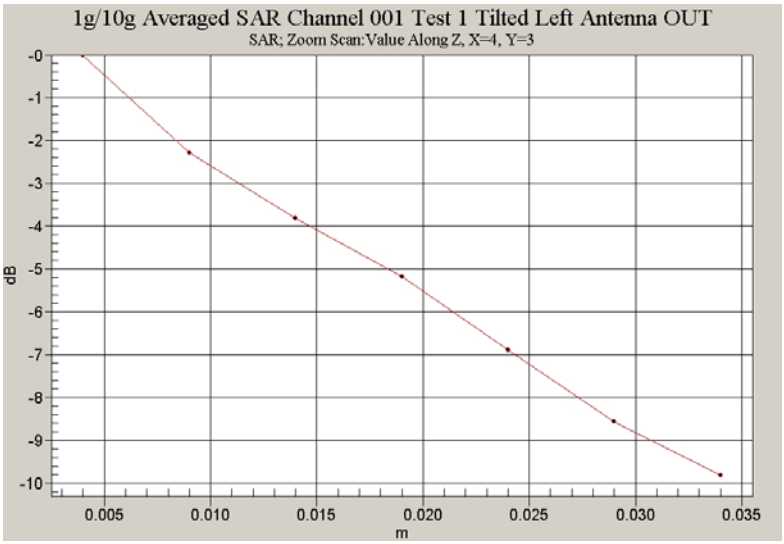
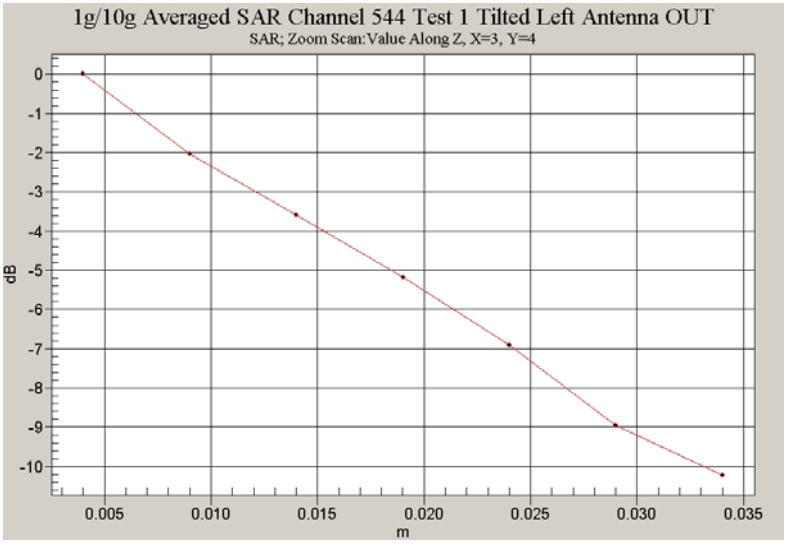
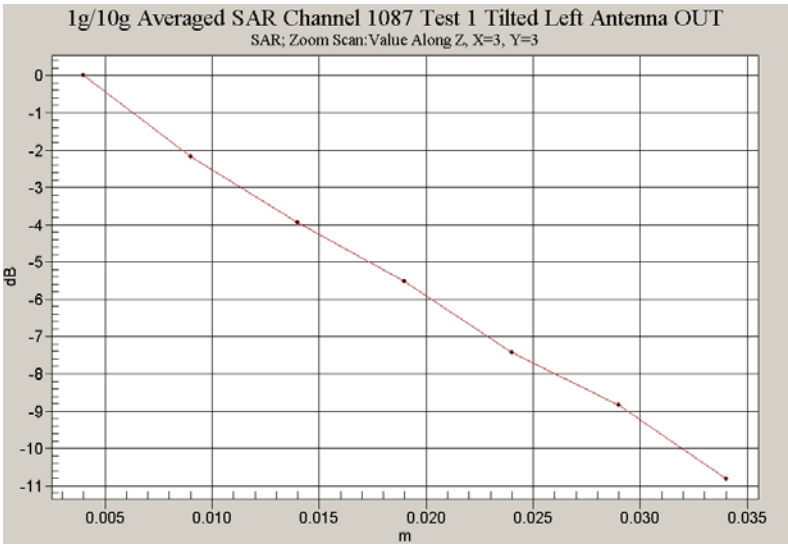
Z-Axis Graph for Plot 4



Z-Axis Graph for Plot 5



Z-Axis Graph for Plot 6



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