

7 - EVALUATION PROCEDURE

7.1 SAR Evaluation Procedure

The evaluation was performed with the following procedure:

Step 1: Measurement of the SAR value at a fixed location above the ear point or central position was used as a reference value for assessing the power drop.

Step 2: The SAR distribution at the exposed side of the head was measured at a distance of 3.9 mm from the inner surface of the shell. The area covered the entire dimension of the head or EUT and the horizontal grid spacing was 20 mm x 20 mm. Based on these data, the area of the maximum absorption was determined by spline interpolation.

Step 3: Around this point, a volume of 32 mm x 32 mm x 34 mm was assessed by measuring 5 x 5 x 7 points. On the basis of this data set, the spatial peak SAR value was evaluated under the following procedure:

1. The data at the surface were extrapolated, since the center of the dipoles is 2.7 mm away from the tip of the probe and the distance between the surface and the lowest measuring point is 1.2 mm. The extrapolation was based on a least square algorithm [11]. A polynomial of the fourth order was calculated through the points in z-axes. This polynomial was then used to evaluate the points between the surface and the probe tip.
2. The maximum interpolated value was searched with a straightforward algorithm. Around this maximum the SAR values averaged over the spatial volumes (1 g or 10 g) were computed by the 3D-Spline interpolation algorithm. The 3D-Spline is composed of three onedimensional splines with the "Not a knot"-condition (in x, y and z-directions) [11], [12]. The volume was integrated with the trapezoidal-algorithm. One thousand points (10 x 10 x 10) were interpolated to calculate the average.
3. All neighboring volumes were evaluated until no neighboring volume with a higher average value was found.

Step 4: Re-measurement of the SAR value at the same location as in Step 1. If the value changed by more than 5%, the evaluation was repeated.

7.2 Exposure Limits

Table 1: Limits for Occupational/Controlled Exposure (W/kg)

| Whole-Body | Partial-Body | Hands. Wrists. Feet and Ankles |
|------------|--------------|--------------------------------|
| 0.4 | 8.0 | 20.0 |

Table 2: Limits for General Population/Uncontrolled Exposure (W/kg)

| Whole-Body | Partial-Body | Hands. Wrists. Feet and Ankles |
|------------|--------------|--------------------------------|
| 0.08 | 1.6 | 4.0 |

Note: Whole-body SAR is averaged over the entire body, partial-body SAR is averaged over any 1 gram of tissue defined as a tissue volume in the shape of a cube SAR for hands, wrists, feet and ankles is averaged over any 10 grams of tissue defined as a tissue volume in the shape of a cube.

Population/Uncontrolled Environments are defined as locations where there is the exposure of individual who have no knowledge or control of their exposure.

Occupational/Controlled Environments are defined as locations where there is exposure that may be incurred by people who are aware of the potential for exposure (i.e. as a result of employment or occupation).

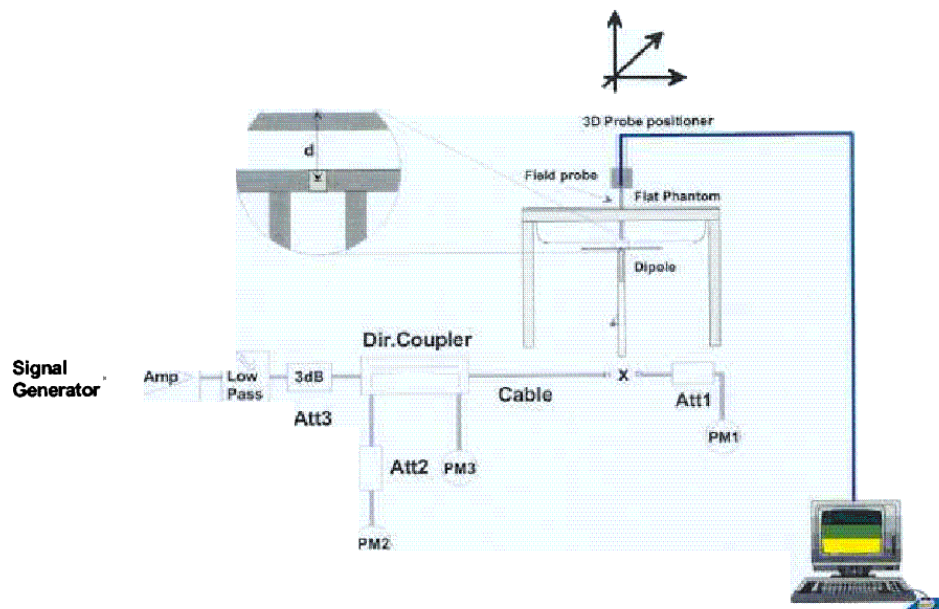
Population/uncontrolled environments Partial-body limit 1.6W/kg applied to the EUT.

7.3 Simulated Tissue Liquid Parameter Confirmation

The dielectric parameters were checked prior to assessment using the HP85070A dielectric probe kit. The dielectric parameters measured are reported in each correspondent section:

7.4 SAR Measurement

The SAR measurement was performed with the E-field probe in mechanical detection mode only. The setup and determination of the forward power into the dipole was performed using the following procedures.



First, the power meter PM1 (including attenuator Att1) is connected to the cable to measure the forward power at the location of the dipole connector (X). The signal generator is adjusted for the desired forward power at the dipole connector (taking into account the attenuation of Att1) as read by power meter PM2. After connecting the cable to the dipole, the signal generator is readjusted for the same reading at power meter PM2. If the signal generator does not allow adjustment in 0.01dB steps, the remaining difference at PM 2 must be taken into consideration. PM3 records the reflected power from the dipole to ensure that the value is not changed from the previous value. The reflected power should be 20dB below the forward power.

The SAR measurements were performed in order to achieve repeatability and to establish an average target value.

7.5 System Accuracy Verification

Prior to the assessment, the system validation kit was used to test whether the system was operating within its specifications of $\pm 10\%$. The validation results are tabulated below. And also the corresponding SAR plot is attached as well in the SAR plots files.

IEEE P1528 recommended reference value for head

| Frequency (MHz) | 1 g SAR | 10 g SAR | Local SAR at surface (above feed point) | Local SAR at surface (v=2cm offset from feed point) |
|-----------------|---------|----------|---|---|
| 300 | 3.0 | 2.0 | 4.4 | 2.1 |
| 450 | 4.9 | 3.3 | 7.2 | 3.2 |
| 835 | 9.5 | 6.2 | 14.1 | 4.9 |
| 900 | 10.8 | 6.9 | 16.4 | 5.4 |
| 1450 | 29.0 | 16.0 | 50.2 | 6.5 |
| 1800 | 38.1 | 19.8 | 69.5 | 6.8 |
| 1900 | 39.7 | 20.5 | 72.1 | 6.6 |
| 2000 | 41.1 | 21.1 | 74.6 | 6.5 |
| 2450 | 52.4 | 24.0 | 104.2 | 7.7 |
| 3000 | 63.8 | 25.7 | 140.2 | 9.5 |

Validation Dipole SAR Reference Test Result for Body (835 MHz)

| Validation Measurement | SAR @ 0.025W Input averaged over 1g | SAR @ 1W Input averaged over 1g | SAR @ 0.025W Input averaged over 10g | SAR @ 1W Input averaged over 10g |
|------------------------|-------------------------------------|---------------------------------|--------------------------------------|----------------------------------|
| Test 1 | 0.222 | 8.88 | 0.112 | 4.48 |
| Test 2 | 0.221 | 8.84 | 0.111 | 4.44 |
| Test 3 | 0.222 | 8.88 | 0.112 | 4.48 |
| Test 4 | 0.220 | 8.80 | 0.111 | 4.44 |
| Test 5 | 0.223 | 8.92 | 0.113 | 4.52 |
| Test 6 | 0.222 | 8.88 | 0.115 | 4.60 |
| Test 7 | 0.221 | 8.84 | 0.114 | 4.56 |
| Test 8 | 0.222 | 8.88 | 0.114 | 4.56 |
| Test 9 | 0.223 | 8.92 | 0.113 | 4.52 |
| Test 10 | 0.222 | 8.88 | 0.112 | 4.48 |
| Average | 0.2218 | 8.872 | 0.1127 | 4.51 |

Validation Dipole SAR Reference Test Result for Body (1900 MHz)

| Validation Measurement | SAR @ 0.126W Input averaged over 1g | SAR @ 1W Input averaged over 1g | SAR @ 0.126W Input averaged over 10g | SAR @ 1W Input averaged over 10g |
|------------------------|---|---------------------------------------|--|--|
| Test 1 | 3.1 | 24.61 | 1.42 | 11.27 |
| Test 2 | 3.1 | 24.61 | 1.41 | 11.20 |
| Test 3 | 3.2 | 25.41 | 1.43 | 11.35 |
| Test 4 | 3.2 | 25.41 | 1.42 | 11.27 |
| Test 5 | 3.1 | 24.61 | 1.42 | 11.27 |
| Test 6 | 3.2 | 25.61 | 1.41 | 11.20 |
| Test 7 | 3.2 | 25.61 | 1.43 | 11.35 |
| Test 8 | 3.1 | 24.61 | 1.42 | 11.27 |
| Test 9 | 3.1 | 24.61 | 1.42 | 11.27 |
| Test 10 | 3.1 | 24.61 | 1.43 | 11.35 |
| Average | 3.14 | 24.97 | 1.421 | 11.28 |

7.6 Liquid Measurement Result**2003-09-24**

| Simulant | Freq [MHz] | Parameters | Liquid Temp [°C] | Target Value | Measured Value | Deviation | Limits [%] |
|----------|------------|--------------|------------------|--------------|----------------|-----------|------------|
| Body | 835 | ϵ_r | 22 | 55.2 | 54.0 | -2.17 | ±5 |
| | | σ | 22 | 0.97 | 0.97 | 0.00 | ±5 |
| | | 1g SAR | 22 | 8.872 | 8.716 | -1.76 | ±10 |
| Head | 835 | ϵ_r | 22 | 41.5 | 41.0 | -1.20 | ±5 |
| | | σ | 22 | 0.90 | 0.87 | -3.33 | ±5 |
| | | 1g SAR | 22 | 9.50 | 10.21 | 7.47 | ±10 |

2003-09-29

| Simulant | Freq [MHz] | Parameters | Liquid Temp [°C] | Target Value | Measured Value | Deviation | Limits [%] |
|----------|------------|--------------|------------------|--------------|----------------|-----------|------------|
| Body | 1900 | ϵ_r | 22 | 53.3 | 52.9 | -0.75 | ±5 |
| | | σ | 22 | 1.52 | 1.56 | 2.63 | ±5 |
| | | 1g SAR | 22 | 24.97 | 24.98 | 0.04 | ±10 |
| Head | 1900 | ϵ_r | 22 | 40.0 | 39.28 | -1.80 | ±5 |
| | | σ | 22 | 1.40 | 1.43 | 2.14 | ±5 |
| | | 1g SAR | 22 | 39.7 | 39.0 | -1.76 | ±10 |

ϵ_r = relative permittivity, σ = conductivity and $\rho=1000\text{kg/m}^3$

835 MHz Body Liquid Forward Power = 21.05 dBm = 127.35 mW
 835 MHz Head Liquid Forward Power = 20.04 dBm = 100.93 mW
 1900 MHz Body Liquid Forward Power = 20.14 dBm = 103.28 mW
 1900 MHz Head Liquid Forward Power = 20.1 dBm = 102.33 mW

System Validation 835 MHz Body liquid (Ambient Temp = 23 Deg C, Liquid Temp = 22 Deg C, Forward Power = 21.05 dBm, 9/24/2003)

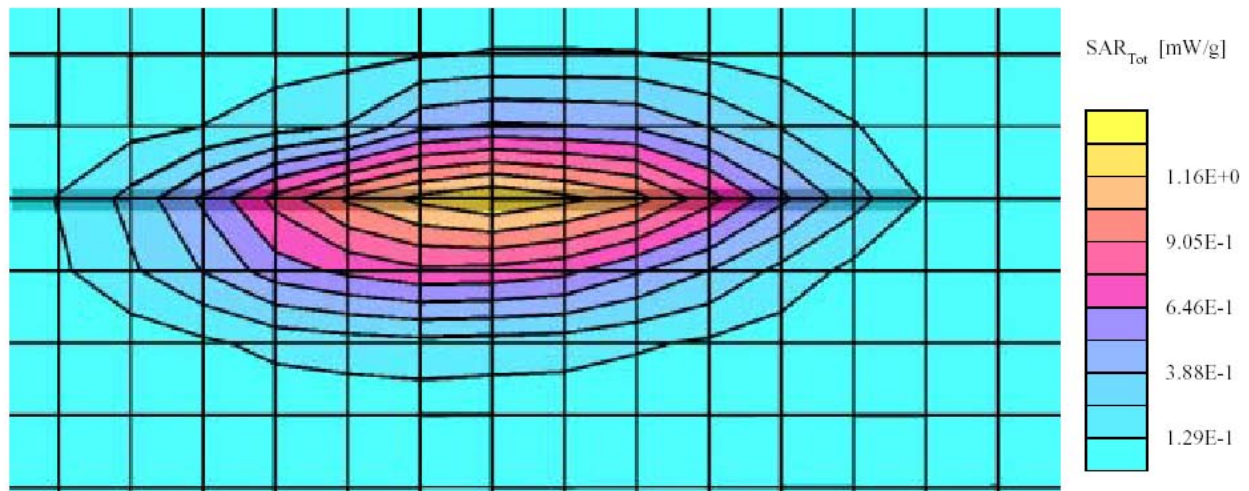
SAM Phantom; Flat Section; Position: (90°,90°); Frequency: 835 MHz

Probe: ET3DV6 - SN1604; ConvF(6.40,6.40,6.40); Crest factor: 1.0; 835 (Body) MHz: $\sigma = 0.97$ mho/m $\epsilon_r = 54.0$ $\rho = 1.00$ g/cm³

Cube 5x5x7: SAR (1g): 1.11 mW/g, SAR (10g): 0.603 mW/g, (Worst-case extrapolation)

Coarse: Dx = 12.0, Dy = 12.0, Dz = 10.0

Powerdrift: -0.00 dB



System Validation 835 MHz Head liquid (Ambient Temp = 23 Deg C, Liquid Temp = 22 Deg C, Forward Power = 20.4 dBm, 9/24/2003)

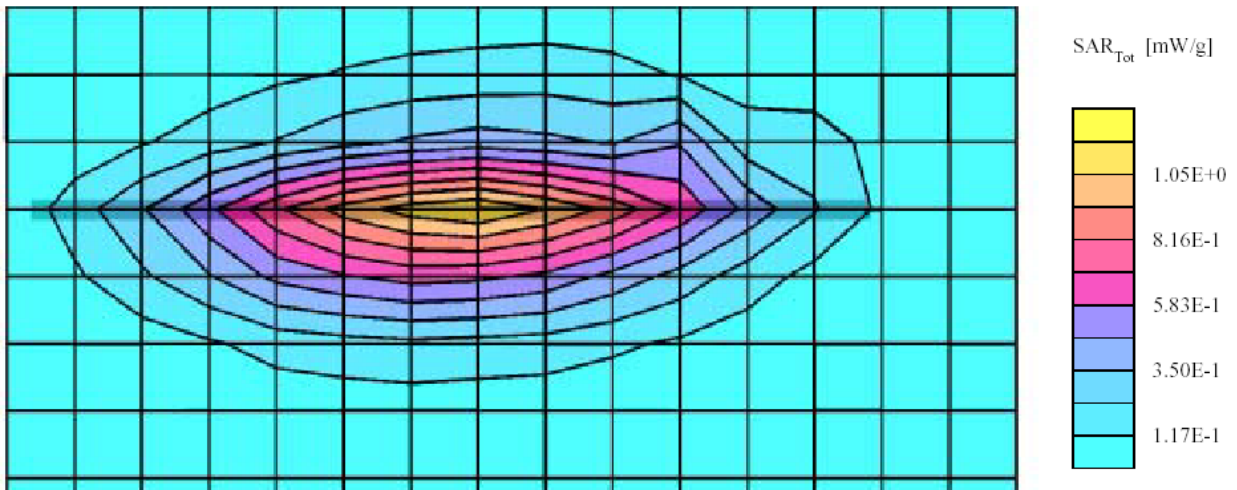
SAM Phantom; Flat Section; Position: (90°,90°); Frequency: 835 MHz

Probe: ET3DV6 - SN1604; ConvF(6.50,6.50,6.50); Crest factor: 1.0; 835 (Head) MHz: $\sigma = 0.87$ mho/m $\epsilon_r = 41.0$ $\rho = 1.00$ g/cm³

Cube 5x5x7: SAR (1g): 1.03 mW/g, SAR (10g): 0.580 mW/g, (Worst-case extrapolation)

Coarse: Dx = 12.0, Dy = 12.0, Dz = 10.0

Powerdrift: -0.00 dB



1900 MHz Body Liquid System Validation (Ambient Temp = 23 Deg C, Liquid Temp = 21 Deg C, Forwar Power = 20.14 dBm, 9/29/2003)

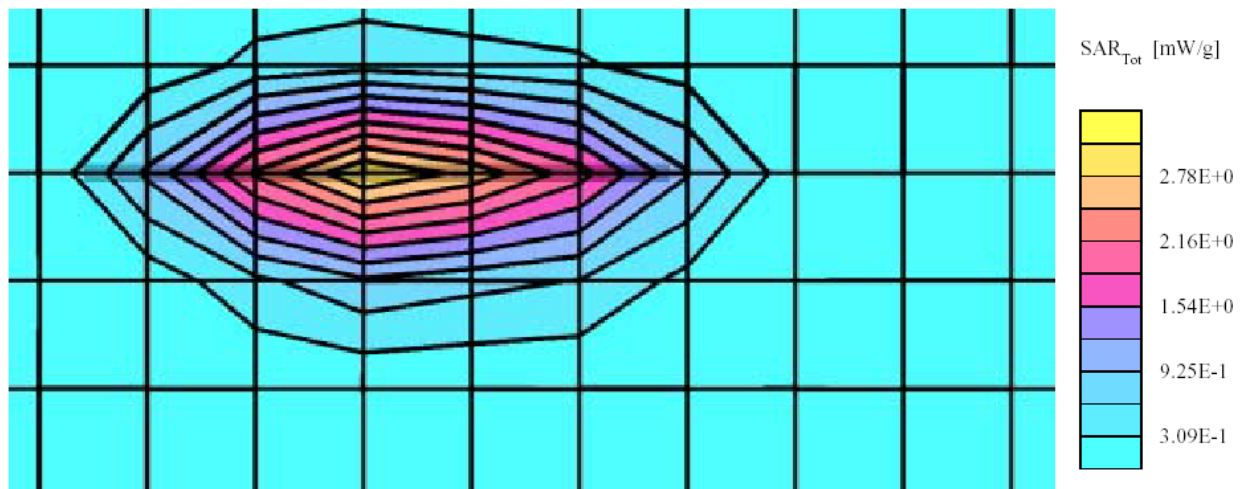
SAM Phantom; Flat Section; Position: (90°,90°); Frequency: 1900 MHz

Probe: ET3DV6 - SN1604; ConvF(4.90,4.90,4.90); Crest factor: 1.0; Body1900 MHz: $\sigma = 1.56$ mho/m $\epsilon_r = 52.9$ $\rho = 1.00$ g/cm³

Cube 5x5x7; SAR (1g): 2.58 mW/g, SAR (10g): 1.14 mW/g, (Worst-case extrapolation)

Coarse: Dx = 12.0, Dy = 12.0, Dz = 10.0

Powerdrift: -0.01 dB



1900 MHz Head Liquid System Validation (Ambient Temp = 23 Deg C, Liquid Temp = 21 Deg C, Forwar Power = 20.1 dBm, 9/29/2003)

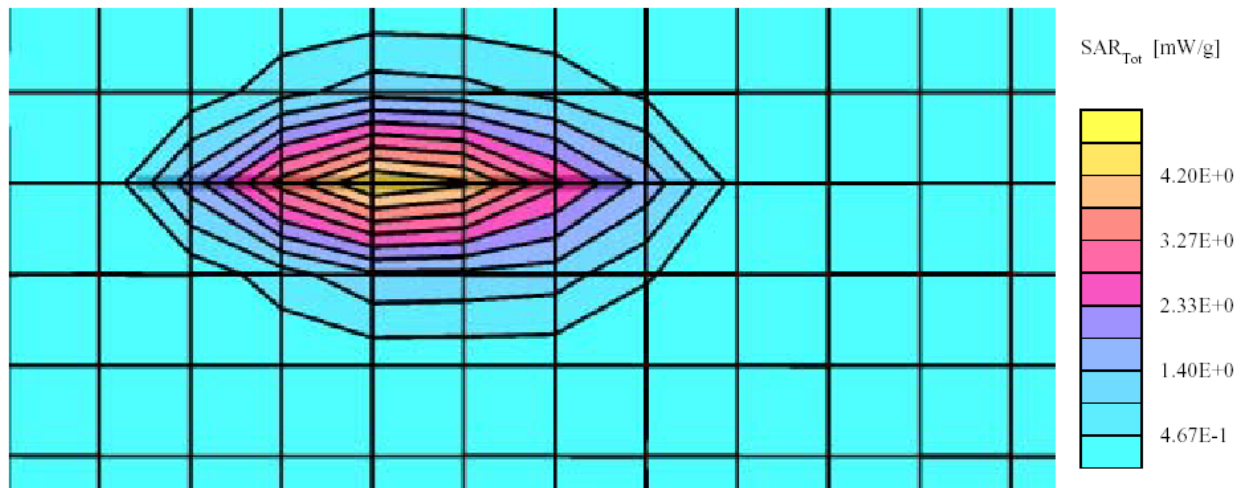
SAM Phantom; Flat Section; Position: (90°,90°); Frequency: 1900 MHz

Probe: ET3DV6 - SN1604; ConvF(5.50,5.50,5.50); Crest factor: 1.0; Head 1900 MHz: $\sigma = 1.43$ mho/m $\epsilon_r = 39.0$ $\rho = 1.00$ g/cm³

Cube 5x5x7: SAR (1g): 4.02 mW/g, SAR (10g): 1.72 mW/g, (Worst-case extrapolation)

Coarse: Dx = 12.0, Dy = 12.0, Dz = 10.0

Powerdrift: 0.01 dB



7.7 835MHz Head Liquid Probe Comparison Measurement Result

System Validation for Probe ET3DV6, S/N 1604:

System Validation 835 MHz Head liquid (Ambient Temp = 23 Deg C, Liquid Temp = 22 Deg C, Forward Power = 20.03 dBm, 10/27/2003)

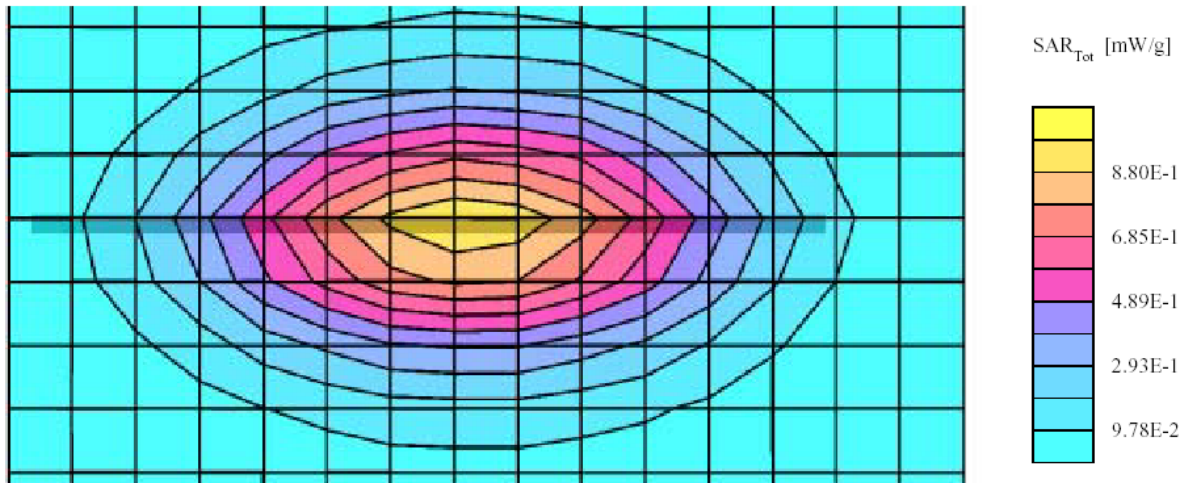
SAM Phantom; Flat Section; Position: (90°,90°); Frequency: 835 MHz

Probe: ET3DV6 - SN1604; ConvF(6.50,6.50,6.50); Crest factor: 1.0; 835 (Head) MHz: $\sigma = 0.88$ mho/m $\epsilon_r = 41.5$ $\rho = 1.00$ g/cm³

Cube 5x5x7: SAR (1g): 0.957 mW/g, SAR (10g): 0.562 mW/g, (Worst-case extrapolation)

Coarse: Dx = 12.0, Dy = 12.0, Dz = 10.0

Powerdrift: -0.04 dB



System Validation for Probe ES3DV2, S/N 3019:

System Validation 835 MHz Head liquid (Ambient Temp = 23 Deg C, Liquid Temp = 22 Deg C, Forward Power = 20.01dBm, 10/27/2003)

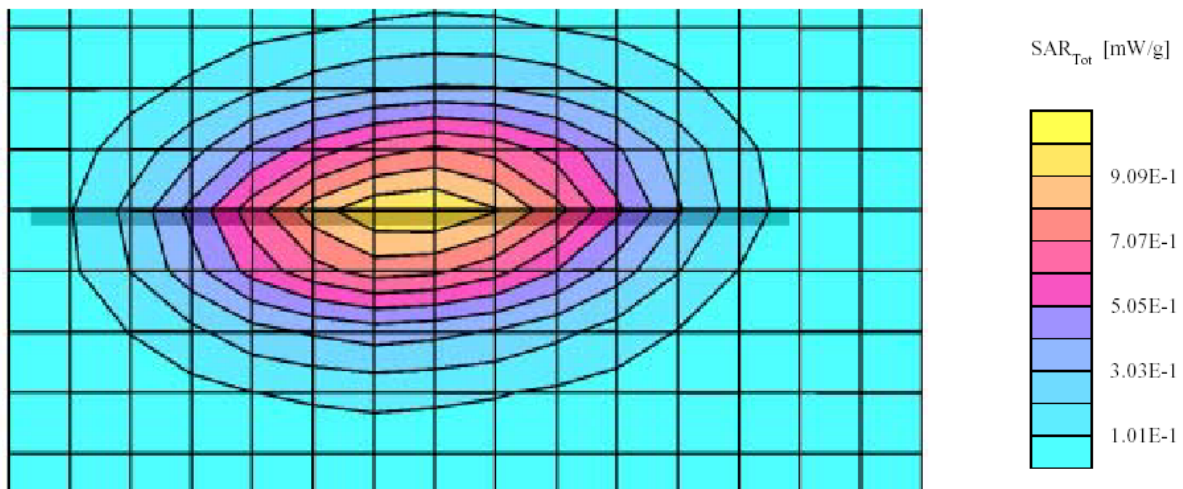
SAM Phantom; Flat Section; Position: (90°,90°); Frequency: 835 MHz

Probe: ES3DV2 - SN3019; ConvF(6.50,6.50,6.50); Crest factor: 1.0; 835 (Head) MHz: $\sigma = 0.88$ mho/m $\epsilon_r = 41.5$ $\rho = 1.00$ g/cm³

Cube 5x5x7: SAR (1g): 0.944 mW/g, SAR (10g): 0.599 mW/g, (Worst-case extrapolation)

Coarse: Dx = 12.0, Dy = 12.0, Dz = 10.0

Powerdrift: -0.05 dB



835 MHz Liquid Validation for old probe and new probe:

| frequency | e' | e'' |
|----------------|---------|---------|
| 815000000.0000 | 41.6784 | 18.9594 |
| 815800000.0000 | 41.6548 | 18.9960 |
| 816600000.0000 | 41.6532 | 18.9826 |
| 817400000.0000 | 41.6960 | 18.9560 |
| 818200000.0000 | 41.6273 | 18.9400 |
| 819000000.0000 | 41.6478 | 18.9304 |
| 819800000.0000 | 41.6525 | 18.9436 |
| 820600000.0000 | 41.6282 | 18.9145 |
| 821400000.0000 | 41.6570 | 18.9469 |
| 822200000.0000 | 41.6668 | 18.9416 |
| 823000000.0000 | 41.6506 | 18.9957 |
| 823800000.0000 | 41.6434 | 18.9887 |
| 824600000.0000 | 41.6212 | 18.9959 |
| 825400000.0000 | 41.5609 | 18.9687 |
| 826200000.0000 | 41.6105 | 18.9599 |
| 827000000.0000 | 41.6714 | 18.9590 |
| 827800000.0000 | 41.6953 | 18.9890 |
| 828600000.0000 | 41.6275 | 18.9322 |
| 829400000.0000 | 41.6154 | 18.9436 |
| 830200000.0000 | 41.6499 | 18.9693 |
| 831000000.0000 | 41.6999 | 18.9928 |
| 831800000.0000 | 41.6025 | 18.9849 |
| 832600000.0000 | 41.6173 | 19.0019 |
| 833400000.0000 | 41.5795 | 18.9378 |
| 834200000.0000 | 41.5522 | 18.9308 |
| 835000000.0000 | 41.5346 | 18.9688 |
| 835800000.0000 | 41.5565 | 18.9829 |
| 836600000.0000 | 41.6205 | 19.0210 |
| 837400000.0000 | 41.6171 | 19.0533 |
| 838200000.0000 | 41.6109 | 18.9972 |
| 839000000.0000 | 41.5361 | 18.9929 |
| 839800000.0000 | 41.5469 | 19.0195 |
| 840600000.0000 | 41.5562 | 19.0223 |
| 841400000.0000 | 41.5711 | 18.9985 |
| 842200000.0000 | 41.5525 | 18.9719 |
| 843000000.0000 | 41.6239 | 18.9781 |
| 843800000.0000 | 41.5551 | 18.9677 |
| 844600000.0000 | 41.5436 | 19.0193 |
| 845400000.0000 | 41.5216 | 18.9942 |
| 846200000.0000 | 41.5225 | 18.9356 |
| 847000000.0000 | 41.5523 | 18.9988 |
| 847800000.0000 | 41.5984 | 18.9826 |
| 848600000.0000 | 41.5384 | 18.9932 |
| 849400000.0000 | 41.5450 | 18.9888 |
| 850200000.0000 | 41.5531 | 19.0081 |
| 851000000.0000 | 41.5570 | 19.0170 |
| 851800000.0000 | 41.5712 | 19.0016 |
| 852600000.0000 | 41.5646 | 18.9745 |
| 853400000.0000 | 41.5670 | 18.9598 |
| 854200000.0000 | 41.5499 | 19.0254 |
| 855000000.0000 | 41.5494 | 18.9838 |

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10/27/2003

7.8 1900MHz Head Liquid Probe Comparison Measurement Result

System Validation for Probe ET3DV6, S/N 1604:

1900 MHz Head Liquid System Validation (Ambient Temp = 23 Deg C, Liquid Temp = 21 Deg C, Forwar Power = 20.06 dBm, 10/30/2003)

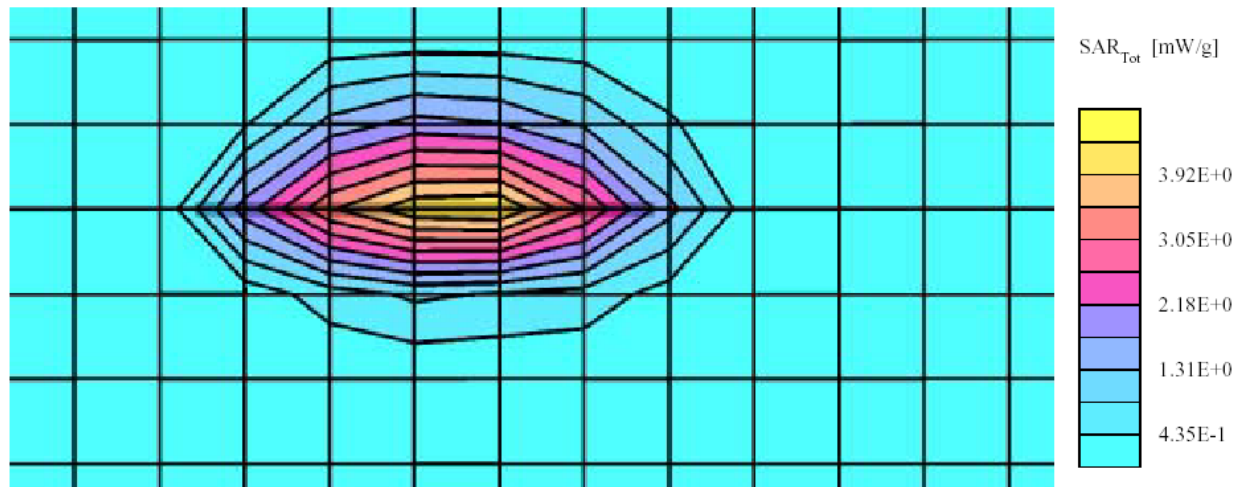
SAM Phantom; Flat Section; Position: (90°,90°); Frequency: 1900 MHz

Probe: ET3DV6 - SN1604; ConvF(5.50,5.50,5.50); Crest factor: 1.0; Head 1900 MHz: $\sigma = 1.48$ mho/m $\epsilon_r = 38.7$ $\rho = 1.00$ g/cm³

Cube 5x5x7: SAR (1g): 3.97 mW/g, SAR (10g): 1.79 mW/g, (Worst-case extrapolation)

Coarse: Dx = 12.0, Dy = 12.0, Dz = 10.0

Powerdrift: -0.04 dB



System Validation for Probe ES3DV2, S/N 3019:

1900 MHz Head Liquid System Validation (Ambient Temp = 23 Deg C, Liquid Temp = 21 Deg C, Forwar Power = 20.17 dBm, 10/30/2003)

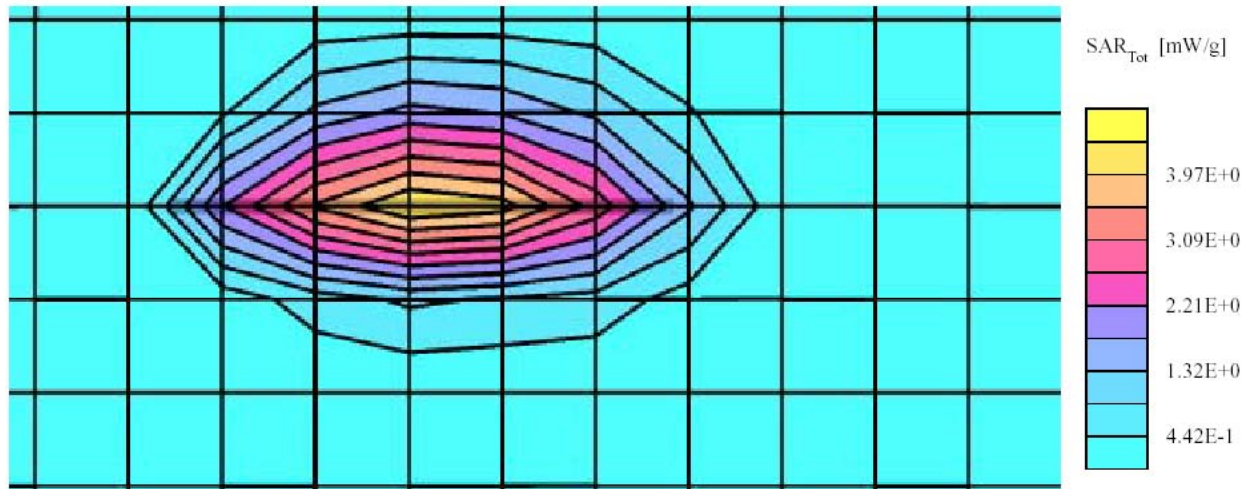
SAM Phantom; Flat Section; Position: (90°,90°); Frequency: 1900 MHz

Probe: ES3DV2 - SN3019; ConvF(4.70,4.70,4.70); Crest factor: 1.0; Head 1900 MHz: $\sigma = 1.48 \text{ mho/m}$, $\epsilon_r = 38.7$, $\rho = 1.00 \text{ g/cm}^3$

Cube 5x5x7; SAR (1g): 4.11 mW/g, SAR (10g): 1.81 mW/g, (Worst-case extrapolation)

Coarse: Dx = 12.0, Dy = 12.0, Dz = 10.0

Powerdrift: 0.03 dB



1900 MHz Liquid Validation for old probe and new probe:

| frequency | e' | e'' |
|-----------------|---------|---------|
| 1850000000.0000 | 39.1847 | 14.0328 |
| 1852000000.0000 | 39.1462 | 14.0525 |
| 1854000000.0000 | 39.1489 | 14.0681 |
| 1856000000.0000 | 39.0592 | 14.0561 |
| 1858000000.0000 | 38.8624 | 13.9133 |
| 1860000000.0000 | 38.7551 | 13.8624 |
| 1862000000.0000 | 38.6732 | 13.8332 |
| 1864000000.0000 | 38.6379 | 13.8006 |
| 1866000000.0000 | 38.6692 | 13.8294 |
| 1868000000.0000 | 38.6966 | 13.8508 |
| 1870000000.0000 | 38.7135 | 13.8484 |
| 1872000000.0000 | 38.6987 | 13.8749 |
| 1874000000.0000 | 38.7441 | 13.8824 |
| 1876000000.0000 | 38.7652 | 13.9177 |
| 1878000000.0000 | 38.7868 | 13.9080 |
| 1880000000.0000 | 38.7578 | 13.9338 |
| 1882000000.0000 | 38.7286 | 13.9319 |
| 1884000000.0000 | 38.7137 | 13.9336 |
| 1886000000.0000 | 38.7237 | 13.9291 |
| 1888000000.0000 | 38.6977 | 13.9246 |
| 1890000000.0000 | 38.7227 | 13.9423 |
| 1892000000.0000 | 38.7167 | 13.9775 |
| 1894000000.0000 | 38.7147 | 13.9868 |
| 1896000000.0000 | 38.6967 | 13.9667 |
| 1898000000.0000 | 38.6997 | 13.9992 |
| 1900000000.0000 | 38.6736 | 14.0003 |
| 1902000000.0000 | 38.6625 | 13.9905 |
| 1904000000.0000 | 38.6891 | 14.0094 |
| 1906000000.0000 | 38.7121 | 14.0512 |
| 1908000000.0000 | 38.6661 | 14.0544 |
| 1910000000.0000 | 38.6716 | 14.0652 |
| 1912000000.0000 | 38.6722 | 14.0529 |
| 1914000000.0000 | 38.6238 | 14.0474 |
| 1916000000.0000 | 38.6342 | 14.0454 |
| 1918000000.0000 | 38.6510 | 14.0651 |
| 1920000000.0000 | 38.6299 | 14.0621 |
| 1922000000.0000 | 38.6461 | 14.0602 |
| 1924000000.0000 | 38.6290 | 14.1144 |
| 1926000000.0000 | 38.6513 | 14.0984 |
| 1928000000.0000 | 38.6479 | 14.1344 |
| 1930000000.0000 | 38.6468 | 14.1376 |
| 1932000000.0000 | 38.6744 | 14.1888 |
| 1934000000.0000 | 38.6698 | 14.1675 |
| 1936000000.0000 | 38.7109 | 14.2032 |
| 1938000000.0000 | 38.6810 | 14.2197 |
| 1940000000.0000 | 38.6374 | 14.1687 |
| 1942000000.0000 | 38.6534 | 14.1864 |
| 1944000000.0000 | 38.6523 | 14.2008 |
| 1946000000.0000 | 38.6620 | 14.2411 |
| 1948000000.0000 | 38.6381 | 14.2606 |
| 1950000000.0000 | 38.6500 | 14.2737 |

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10/30/2003

8 - SAR TEST RESULTS

This page summarizes the results of the performed dosimetric evaluation. The plots with the corresponding SAR distributions, which reveal information about the location of the maximum SAR with respect to the device could be found in the following pages.

The output power was measured prior to testing and a fresh battery charge was ensured before each test. The modulation characteristics of the EUT is CDMA, therefore, a crest factor of 1 was used during the test.

8.1 SAR Body and Head Worst-Case Test Data

Ambient Temperature (°C): 23.0

Relative Humidity (%): 42.0

| Position | Frequency (MHz) | Output Power (dBm) | Test Type | Liquid | Phantom | Notes / Accessories | Measured (mW/g) | Limit (mW/g) | Plot # |
|---------------------|-----------------|--------------------|-----------|--------|---------|---------------------|-----------------|--------------|--------|
| Right Side Touching | 836 | 23.83 | Body worn | Body | Flat | None | 0.0611 | 1.6 | 1 |
| Left Side Touching | 836 | 23.83 | | | | | 0.0524 | | 2 |
| Top Touching | 836 | 23.83 | | | | | 0.297 | | 3 |
| Back Touching | 836 | 23.83 | | | | | 0.309 | | 4 |
| Right Side Touching | 1880 | 23.83 | Body worn | Body | Flat | None | 0.0646 | 1.6 | 5 |
| Left Side Touching | 1880 | 23.83 | | | | | 0.0282 | | 6 |
| Top Touching | 1880 | 23.83 | | | | | 0.137 | | 7 |
| Back Touching | 1880 | 23.83 | | | | | 0.232 | | 8 |

8.2 Plots of Test Result

The plots of test result were attached as reference.

Verifone, Omni3600D (Right side in touch with flat phantom, Ambient Temp = 23 Deg C,
Liquid Temp = 21 Deg C, 9/24/2003)

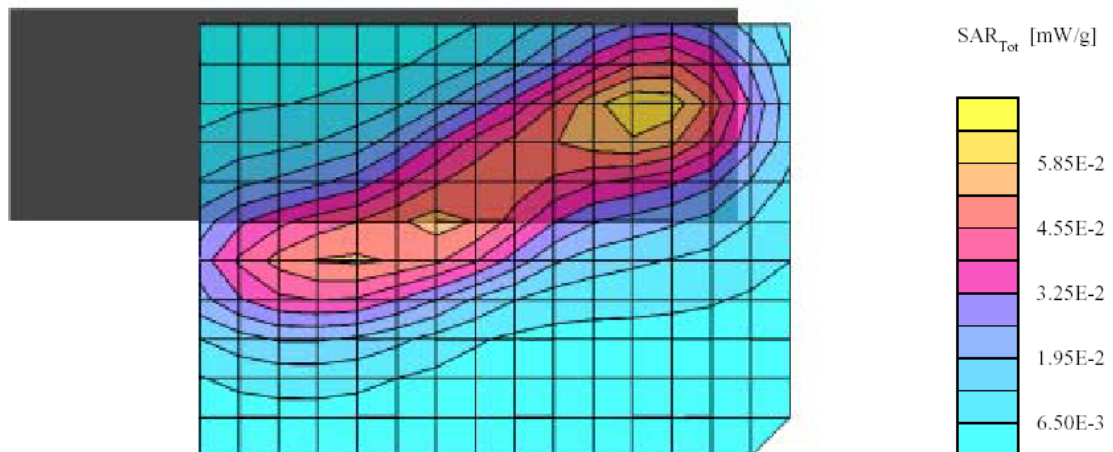
SAM Phantom; Flat Section; Position: (90°,90°); Frequency: 836 MHz

Probe: ET3DV6 - SN1604; ConvF(6.40,6.40,6.40); Crest factor: 1.0; 835 (Body) MHz: $\sigma = 0.97$ mho/m $\epsilon_r = 54.0$ $\rho = 1.00$ g/cm³

Cube 5x5x7; SAR (1g): 0.0611 mW/g, SAR (10g): 0.0396 mW/g, (Worst-case extrapolation)

Coarse: Dx = 12.0, Dy = 12.0, Dz = 10.0

Powerdrift: -0.00 dB



Plot #1

Verifone, Omni3600D (Left side in touch with flat phantom, Ambient Temp = 23 Deg C,
Liquid Temp = 21 Deg C, 9/24/2003)

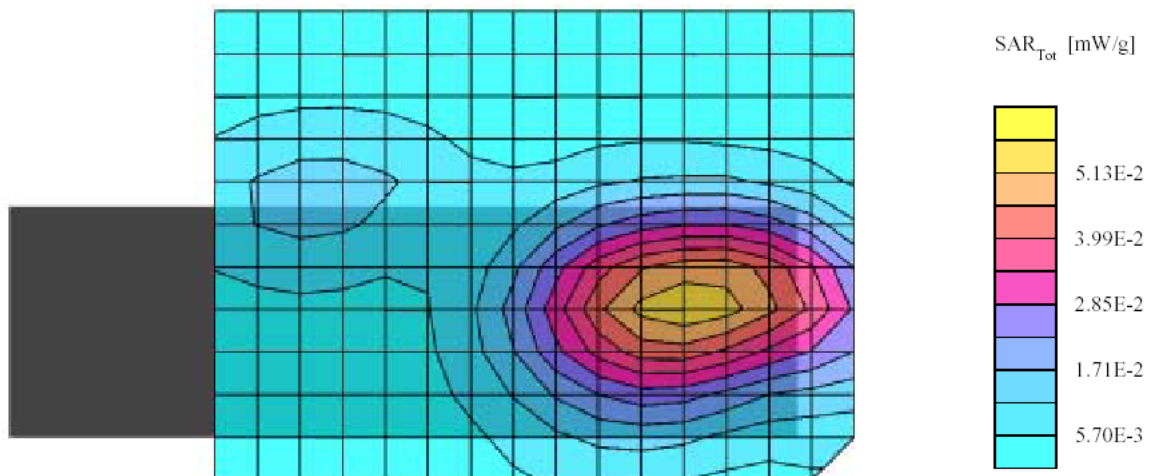
SAM Phantom; Flat Section; Position: (90°,90°); Frequency: 836 MHz

Probe: ET3DV6 - SN1604; ConvF(6.40,6.40,6.40); Crest factor: 1.0; 835 (Body) MHz: $\sigma = 0.97$ mho/m $\epsilon_r = 54.0$ $\rho = 1.00$ g/cm³

Cube 5x5x7; SAR (1g): 0.0524 mW/g, SAR (10g): 0.0350 mW/g, (Worst-case extrapolation)

Coarse: Dx = 12.0, Dy = 12.0, Dz = 10.0

Powerdrift: 0.03 dB



Plot #2

Verifone, Omni3600D (Top side in touch with flat phantom, Ambient Temp = 23 Deg C,
Liquid Temp = 21 Deg C, 9/24/2003)

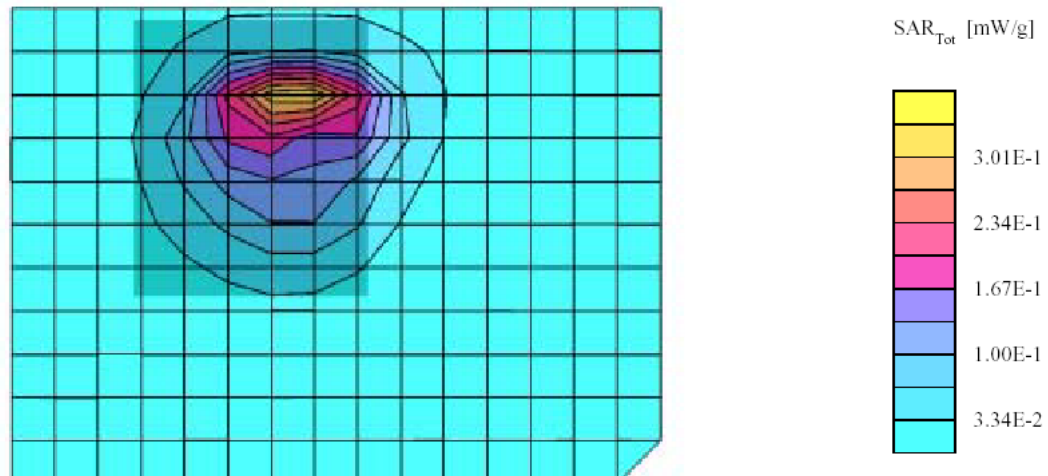
SAM Phantom; Flat Section; Position: (90°,90°); Frequency: 836 MHz

Probe: ET3DV6 - SN1604; ConvF(6.40,6.40,6.40); Crest factor: 1.0; 835 (Body) MHz: $\sigma = 0.97$ mho/m $\epsilon_r = 54.0$ $\rho = 1.00$ g/cm³

Cube 5x5x7; SAR (1g): 0.297 mW/g, SAR (10g): 0.143 mW/g, (Worst-case extrapolation)

Coarse: Dx = 12.0, Dy = 12.0, Dz = 10.0

Powerdrift: 0.02 dB



Plot #3

Verifone, Omni3600D (Back side in touch with flat phantom, Ambient Temp = 23 Deg C,
Liquid Temp = 21 Deg C, 9/24/2003)

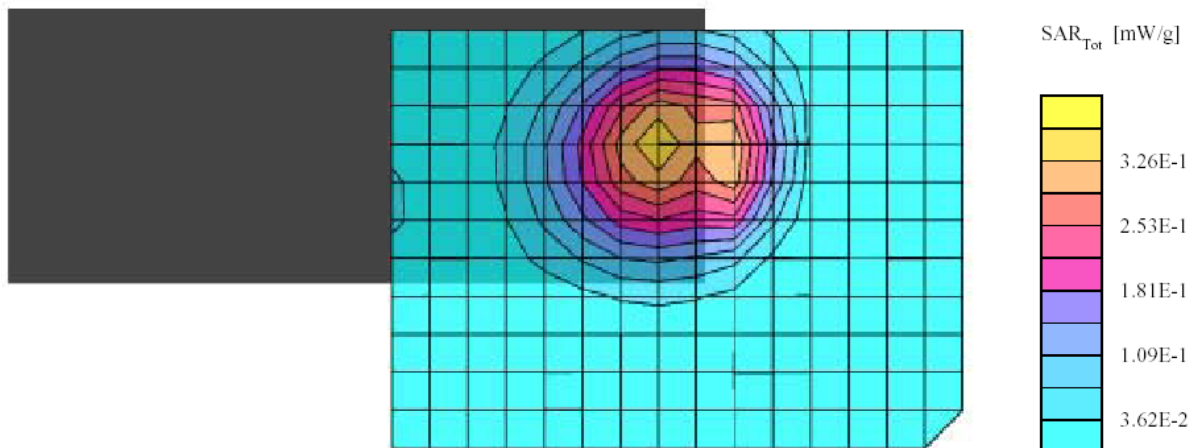
SAM Phantom; Flat Section; Position: (90°,90°); Frequency: 836 MHz

Probe: ET3DV6 - SN1604; ConvF(6.40,6.40,6.40); Crest factor: 1.0; 835 (Body) MHz: $\sigma = 0.97$ mho/m $\epsilon_r = 54.0$ $\rho = 1.00$ g/cm³

Cube 5x5x7; SAR (1g): 0.309 mW/g, SAR (10g): 0.200 mW/g, (Worst-case extrapolation)

Coarse: Dx = 12.0, Dy = 12.0, Dz = 10.0

Powerdrift: 0.01 dB



Plot #4

Verifone, Omni3600D (Right side in touch with flat phantom, Ambient Temp = 23 Deg C,
Liquid Temp = 21 Deg C, 9/29/2003)

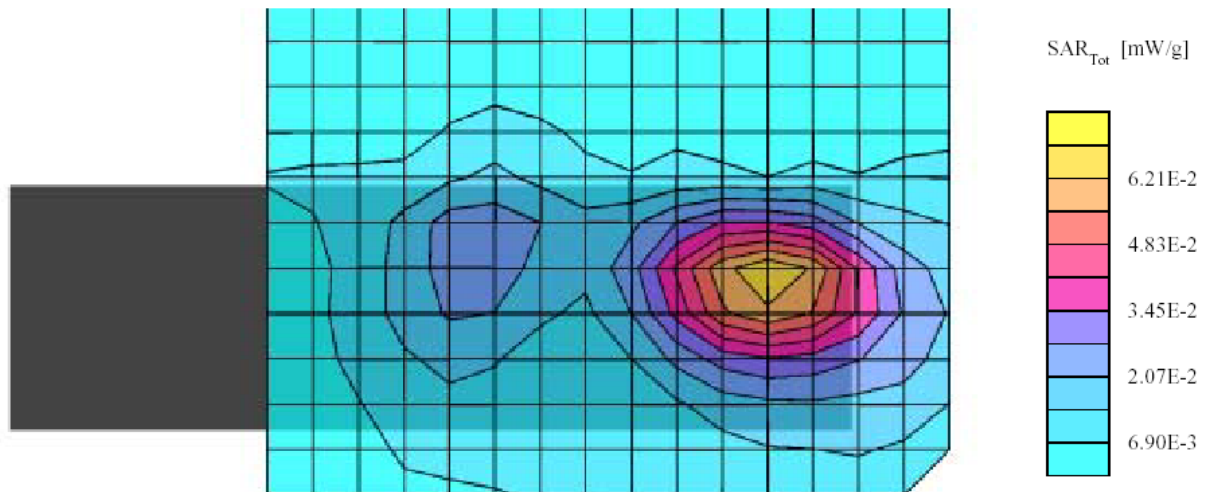
SAM Phantom; Flat Section; Position: (90°,90°); Frequency: 1880 MHz

Probe: ET3DV6 - SN1604; ConvF(4.90,4.90,4.90); Crest factor: 1.0; 1900 (Body) MHz: $\sigma = 1.56$ mho/m $\epsilon_r = 52.9$ $\rho = 1.00$ g/cm³

Cube 5x5x7: SAR (1g): 0.0646 mW/g, SAR (10g): 0.0393 mW/g, (Worst-case extrapolation)

Coarse: Dx = 12.0, Dy = 12.0, Dz = 10.0

Powerdrift: 0.04 dB



Plot #5

Verifone, Omni3600D (Left side in touch with flat phantom, Ambient Temp = 23 Deg C,
Liquid Temp = 21 Deg C, 9/29/2003)

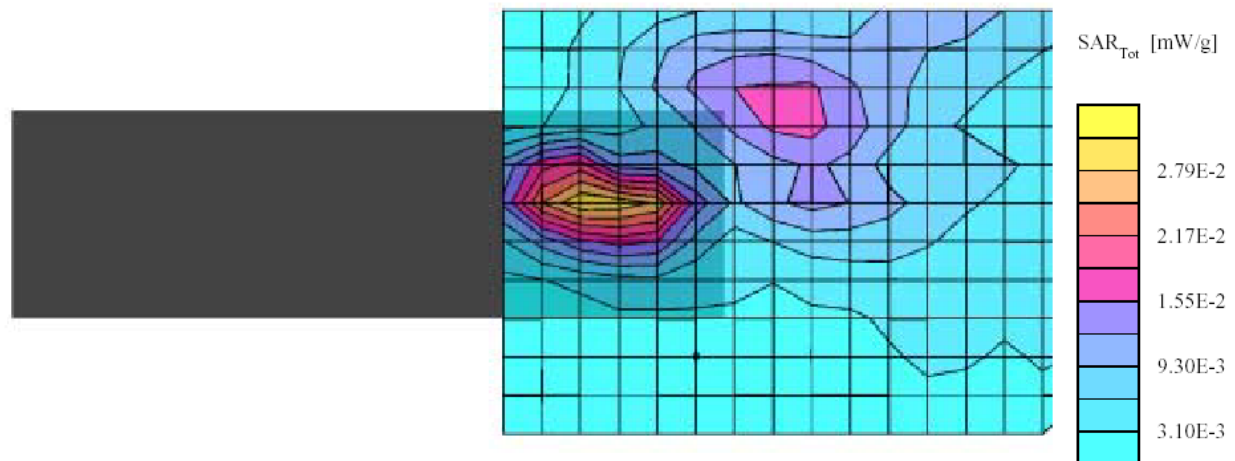
SAM Phantom; Flat Section; Position: (90°,90°); Frequency: 1880 MHz

Probe: ET3DV6 - SN1604; ConvF(4.90,4.90,4.90); Crest factor: 1.0; 1900 (Body) MHz: $\sigma = 1.56$ mho/m $\epsilon_r = 52.9$ $\rho = 1.00$ g/cm³

Cube 5x5x7: SAR (1g): 0.0282 mW/g, SAR (10g): 0.0178 mW/g, (Worst-case extrapolation)

Coarse: Dx = 12.0, Dy = 12.0, Dz = 10.0

Powerdrift: -0.03 dB



Plot #6

Verifone, Omni3600D (Top side in touch with flat phantom, Ambient Temp = 23 Deg C,
Liquid Temp = 21 Deg C, 9/29/2003)

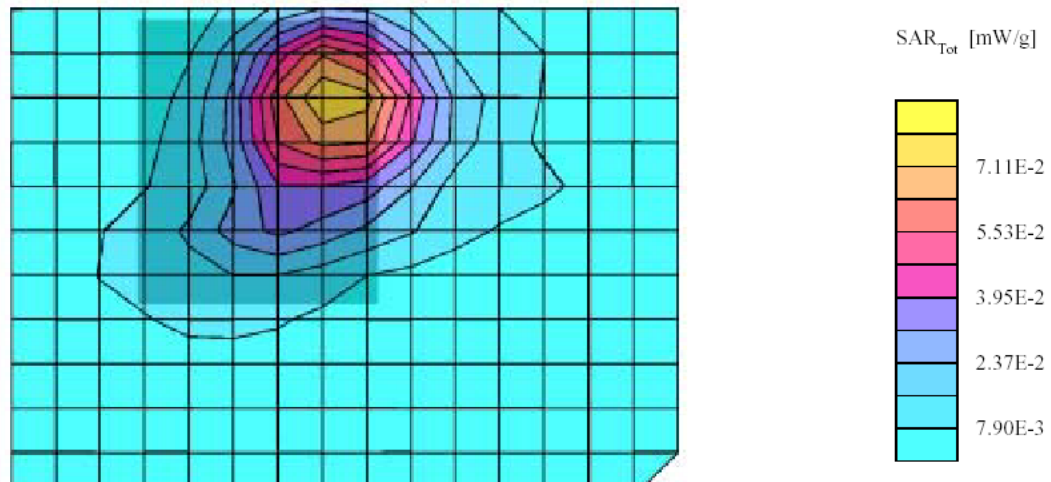
SAM Phantom; Flat Section; Position: (90°,90°); Frequency: 1880 MHz

Probe: ET3DV6 - SN1604; ConvF(4.90,4.90,4.90); Crest factor: 1.0; 835 (Body) MHz: $\sigma = 1.56$ mho/m $\epsilon_r = 52.9$ $\rho = 1.00$ g/cm³

Cube 5x5x7; SAR (1g): 0.137 mW/g, SAR (10g): 0.0863 mW/g, (Worst-case extrapolation)

Coarse: Dx = 12.0, Dy = 12.0, Dz = 10.0

Powerdrift: -0.04 dB



Plot #7

Verifone, Omni3600D (Back side in touch with flat phantom, Ambient Temp = 23 Deg C,
Liquid Temp = 21 Deg C, 9/29/2003)

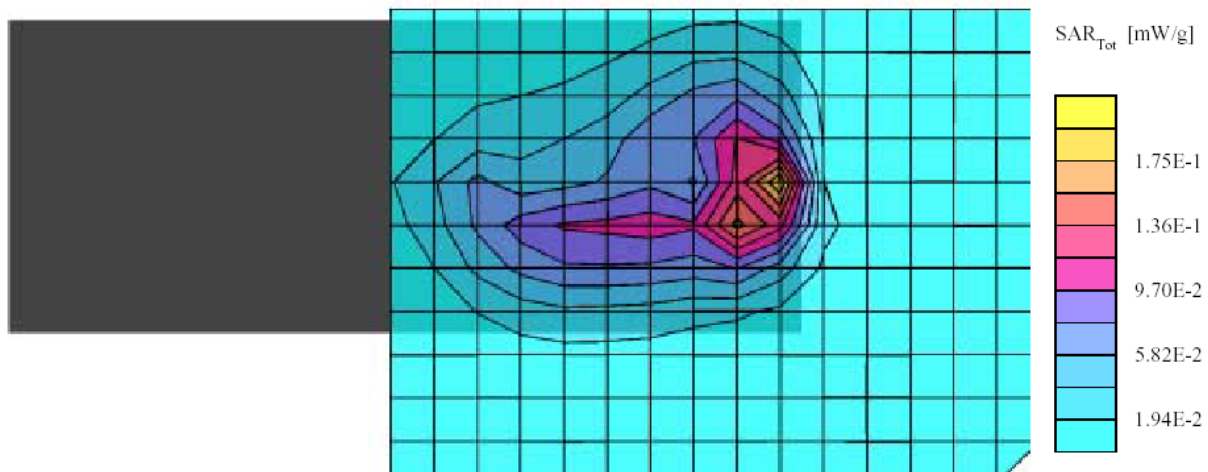
SAM Phantom; Flat Section; Position: (90°,90°); Frequency: 1880 MHz

Probe: ET3DV6 - SN1604; ConvF(4.90,4.90,4.90); Crest factor: 1.0; 1900 (Body) MHz: $\sigma = 1.56$ mho/m $\epsilon_r = 52.9$ $\rho = 1.00$ g/cm³

Cube 5x5x7; SAR (1g): 0.232 mW/g, SAR (10g): 0.122 mW/g, (Worst-case extrapolation)

Coarse: Dx = 12.0, Dy = 12.0, Dz = 10.0

Powerdrift: 0.02 dB



Plot #8

EXHIBIT A - SAR SETUP PHOTOGRAPHS

Right Side Touching with Phantom



Left Side Touching with Phantom



Back Side Touching with Phantom



Top Side Touching with Phantom



EXHIBIT B – EUT PHOTOGRAPHS

Chassis - Top View



Chassis - Back View



Chassis – Right Side View



Chassis – Cover off View



EUT – Inside Explode View



EUT – Antenna and Modem View



EUT – Antenna and Modem View 2



EUT – AnyData Modem and Antenna View



EUT – AnyData Modem Close Up View



EUT – SN7 Close Up View



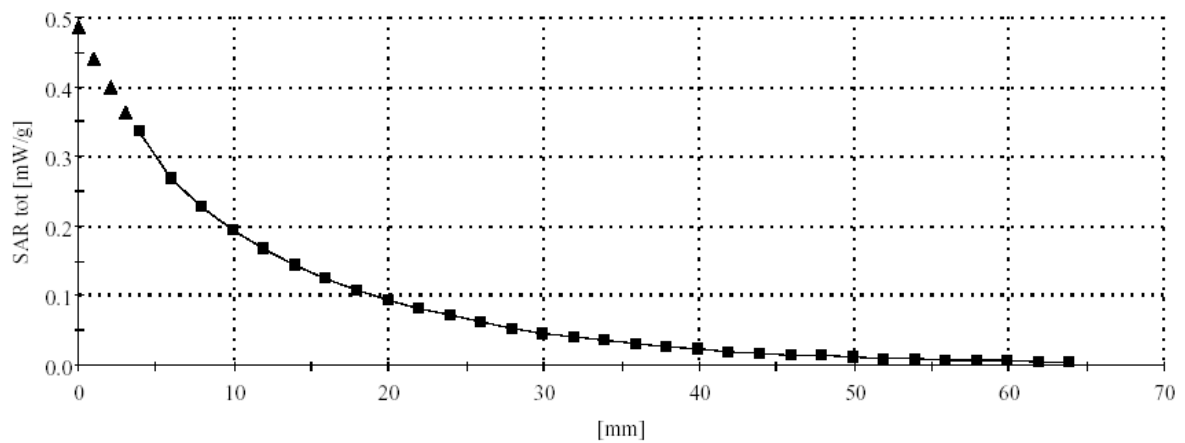
EXHIBIT C – Z-Axis

Verifone, Omni3600D (Back side in touch with flat phantom, Ambient Temp = 23 Deg C,
Liquid Temp = 21 Deg C, 9/24/2003)

SAM Phantom; Section; Position ; Frequency: 836 MHz

Probe: ET3DV6 - SN1604; ConvF(6.40,6.40,6.40); Crest factor: 1.0; 835 (Body) MHz: $\sigma = 0.97$ mho/m $\epsilon_r = 54.0$ $\rho = 1.00$ g/cm³
; , 0

Z-Axis: Dx = 0.0, Dy = 0.0, Dz = 2.0



Verifone, Omni3600D (Back side in touch with flat phantom, Ambient Temp = 23 Deg C,
Liquid Temp = 21 Deg C, 9/29/2003)

SAM Phantom; Section; Position: ; Frequency: 1880 MHz

Probe: ET3DV6 - SN1604; ConvF(4.90,4.90,4.90); Crest factor: 1.0; 1900 (Body) MHz: $\sigma = 1.56 \text{ mho/m}$ $\epsilon_r = 52.9$ $\rho = 1.00 \text{ g/cm}^3$

; 0

Z-Axis: Dx = 0.0, Dy = 0.0, Dz = 2.0

