**WCDMA 1900 Head**
Date: 2018-5-25
Electronics: DAE4 Sn786
Medium: Head 1900 MHz
Medium parameters used: f = 1880 MHz; $\sigma$ = 1.393 S/m; $\varepsilon r$ = 39.644; $\rho$ = 1000 kg/m$^3$
Ambient Temperature: 22.0$^o$C Liquid Temperature: 21.5$^o$C
Communication System: UID 0, WCDMA (0) Frequency: 1880 MHz Duty Cycle: 1:1
Probe: EX3DV4 – SN3633 ConvF (7.81, 7.81, 7.81);

**Left Cheek Middle/Area Scan (61x101x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 0.241 W/kg

**Left Cheek Middle/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 4.649 V/m; Power Drift = 0.19 dB
Peak SAR (extrapolated) = 0.838 W/kg
**SAR(1 g) = 0.521 W/kg; SAR(10 g) = 0.303 W/kg**
Maximum value of SAR (measured) = 0.686 W/kg

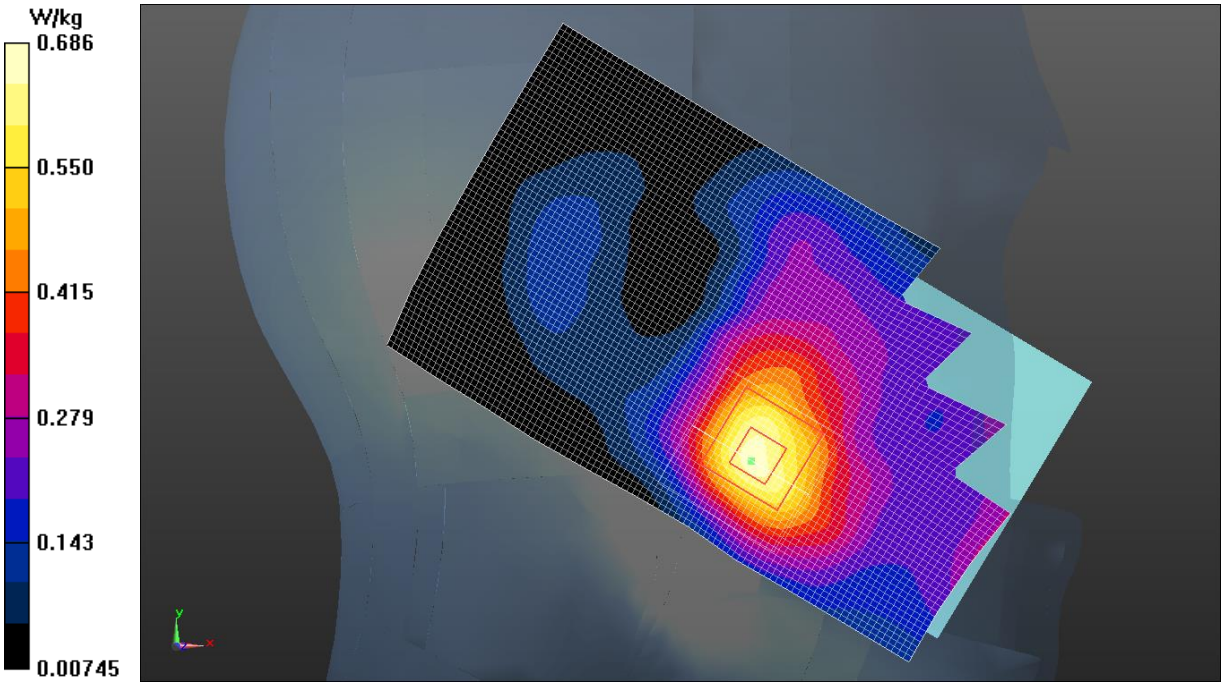


**Fig.7 WCDMA 1900**

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**WCDMA 1900 Body**
Date: 2018-5-25
Electronics: DAE4 Sn786
Medium: Body 1900 MHz
Medium parameters used: f = 1880 MHz; $\sigma$ = 1.544 S/m; $\varepsilon r$ = 52.833; $\rho$ = 1000 kg/$m^3$
Ambient Temperature: 22.0°C Liquid Temperature: 21.5°C
Communication System: UID 0, WCDMA (0) Frequency: 1880 MHz Duty Cycle: 1:1
Probe: EX3DV4 – SN3633 ConvF (7.75, 7.75, 7.75);

**Front side Middle/Area Scan (61x71x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 0.690 W/kg

**Front side Middle/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 13.40 V/m; Power Drift = -0.05 dB
Peak SAR (extrapolated) = 1.15 W/kg
**SAR(1 g) = 0.449 W/kg; SAR(10 g) = 0.260 W/kg**
Maximum value of SAR (measured) = 0.729 W/kg

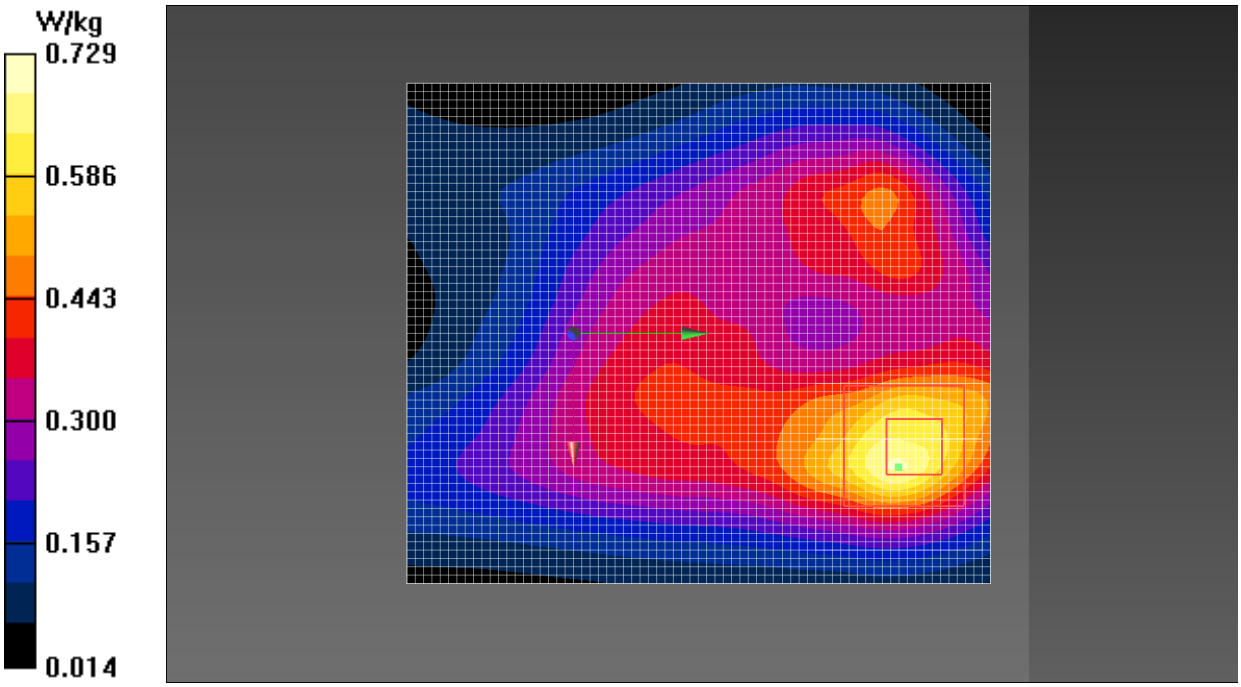


**Fig.8 WCDMA 1900**

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**WCDMA 1700 Head**

Date: 2018-6-5

Electronics: DAE4 Sn786

Medium: Head 1800 MHz

Medium parameters used (interpolated): f = 1732.6 MHz; $\sigma$ = 1.360 S/m; $\varepsilon_r$ = 39.052; $\rho$ = 1000 kg/m$^3$

Ambient Temperature: 22.0$^o$C Liquid Temperature: 21.5$^o$C

Communication System: UID 0, WCDMA (0) Frequency: 1732.6 MHz Duty Cycle: 1:1

Probe: EX3DV4 – SN3633 ConvF (8.12, 8.12, 8.12);

**Left Cheek Middle/Area Scan (61x101x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.393 W/kg

**Left Cheek Middle/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 4.173 V/m; Power Drift = 0.02 dB

Peak SAR (extrapolated) = 0.573 W/kg

**SAR(1 g) = 0.363 W/kg; SAR(10 g) = 0.221 W/kg**

Maximum value of SAR (measured) = 0.391 W/kg

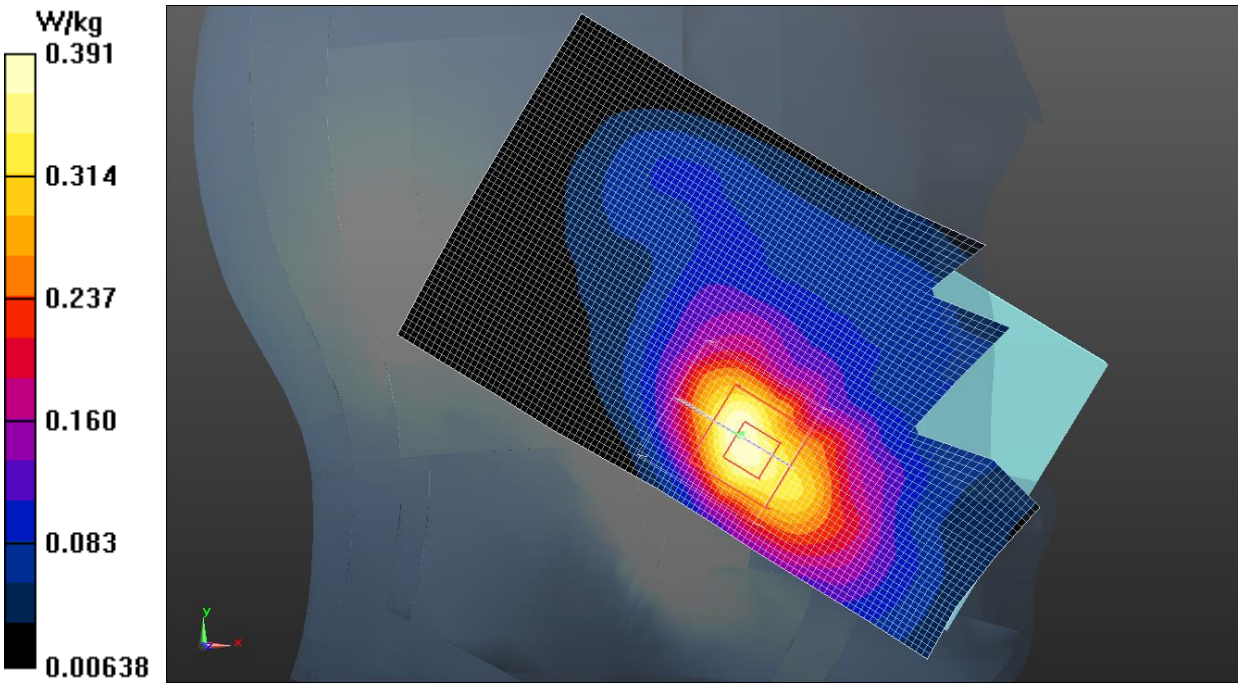


**Fig.9 WCDMA 1700**

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**WCDMA 1700 Body**

Date: 2018-6-5

Electronics: DAE4 Sn786

Medium: Body 1800 MHz

Medium parameters used (interpolated): f = 1732.6 MHz; $\sigma$ = 1.436 S/m; $\varepsilon_r$ = 54.276; $\rho$ = 1000 kg/m$^3$

Ambient Temperature: 22.0$^o$C Liquid Temperature: 21.5$^o$C

Communication System: UID 0, WCDMA (0) Frequency: 1732.6 MHz Duty Cycle: 1:1

Probe: EX3DV4 – SN3633 ConvF (8.05, 8.05, 8.05);

**Front side Middle/Area Scan (61x101x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.442 W/kg

**Front side Middle/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 10.96 V/m; Power Drift = 0.11 dB

Peak SAR (extrapolated) = 0.639 W/kg

**SAR(1 g) = 0.379 W/kg; SAR(10 g) = 0.238 W/kg**

Maximum value of SAR (measured) = 0.397 W/kg

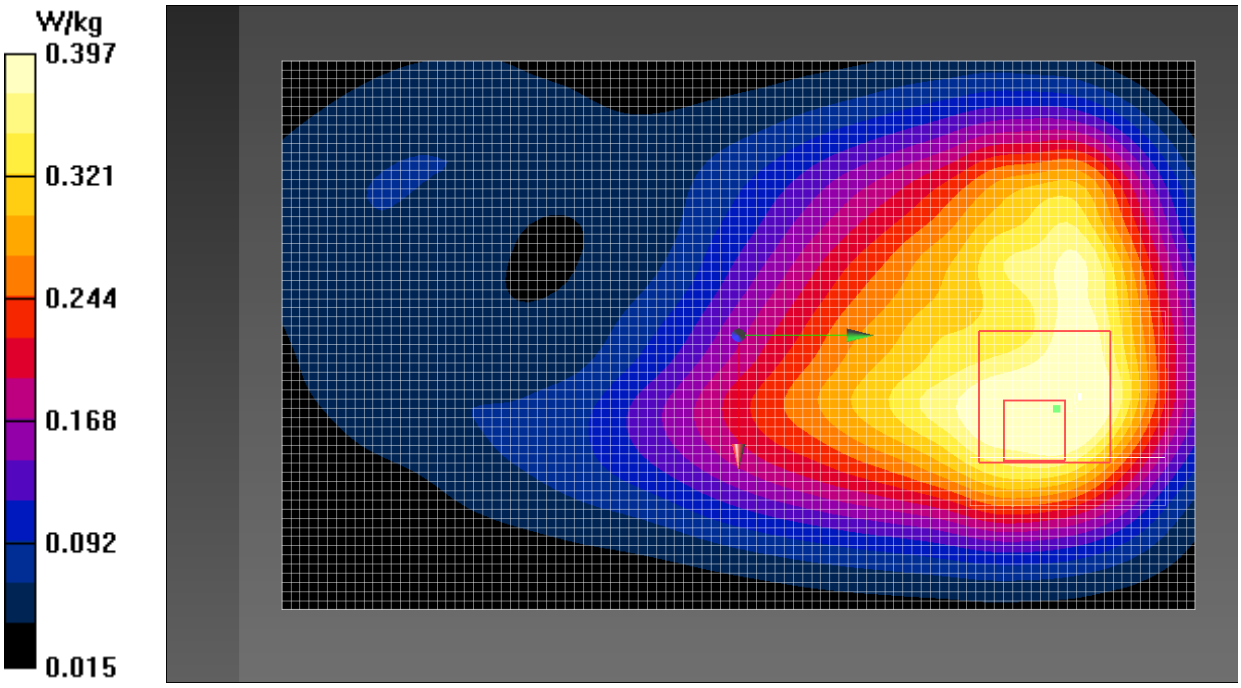


**Fig.10 WCDMA 1700**

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**LTE Band 2 Head**
Date: 2018-5-25
Electronics: DAE4 Sn786
Medium: Head 1900 MHz
Medium parameters used: f = 1880 MHz; $\sigma$ = 1.393 S/m; $\varepsilon r$ = 39.644; $\rho$ = 1000 kg/$m^3$
Ambient Temperature: 22.0°C Liquid Temperature: 21.5°C
Communication System: UID 0, LTE_FDD (0) Frequency: 1880 MHz Duty Cycle: 1:1
Probe: EX3DV4 – SN3633 ConvF (7.81, 7.81, 7.81);

**Left Cheek Middle 1RB_Low/Area Scan (61x101x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 0.519 W/kg

**Left Cheek Middle 1RB_Low/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 4.718 V/m; Power Drift = 0.09 dB
Peak SAR (extrapolated) = 0.780 W/kg
**SAR(1 g) = 0.474 W/kg; SAR(10 g) = 0.281 W/kg**
Maximum value of SAR (measured) = 0.511 W/kg

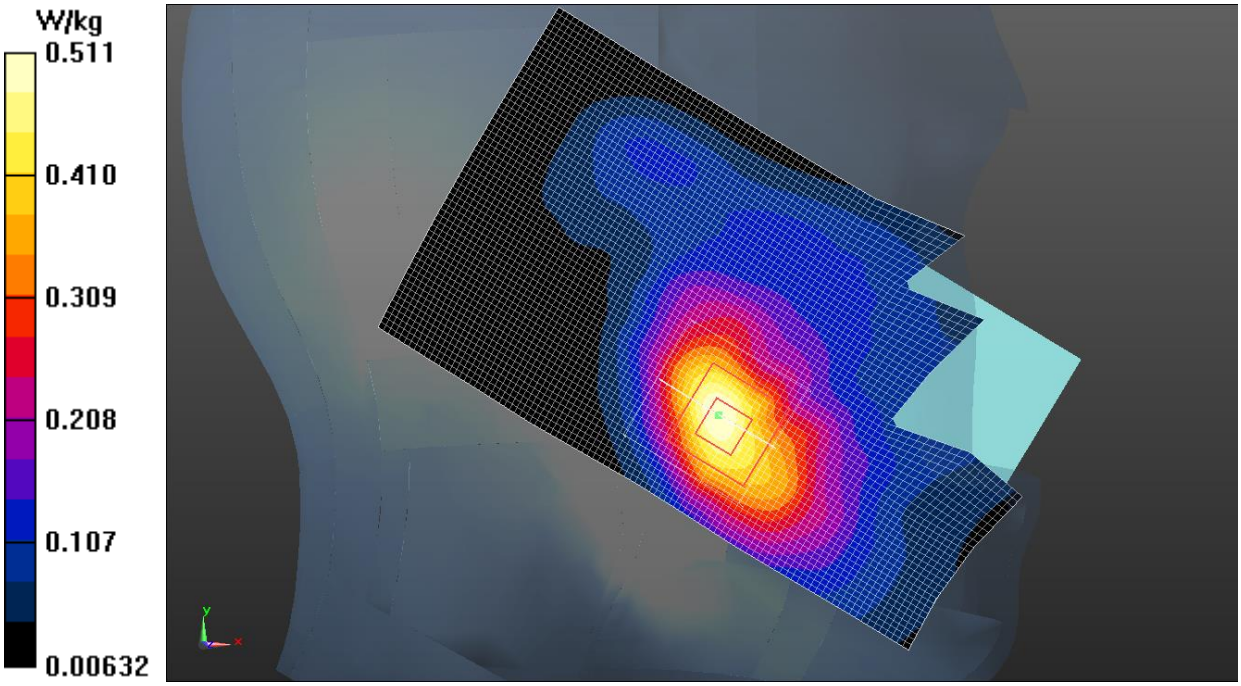


**Fig.11 LTE Band 2**

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**LTE Band 2 Body**
Date: 2018-5-25
Electronics: DAE4 Sn786
Medium: Body 1900 MHz
Medium parameters used: f = 1880 MHz; $\sigma$ = 1.544 S/m; $\varepsilon r$ = 52.833; $\rho$ = 1000 kg/m$^3$
Ambient Temperature: 22.0$^o$C Liquid Temperature: 21.5$^o$C
Communication System: UID 0, LTE_FDD (0) Frequency: 1880 MHz Duty Cycle: 1:1
Probe: EX3DV4 – SN3633 ConvF (7.75, 7.75, 7.75);

**Bottom side Middle 1RB_Low/Area Scan (51x71x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 0.539 W/kg

**Bottom side Middle 1RB_Low/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 12.55 V/m; Power Drift = 0.17 dB
Peak SAR (extrapolated) = 0.801 W/kg
**SAR(1 g) = 0.477 W/kg; SAR(10 g) = 0.272 W/kg**
Maximum value of SAR (measured) = 0.522 W/kg

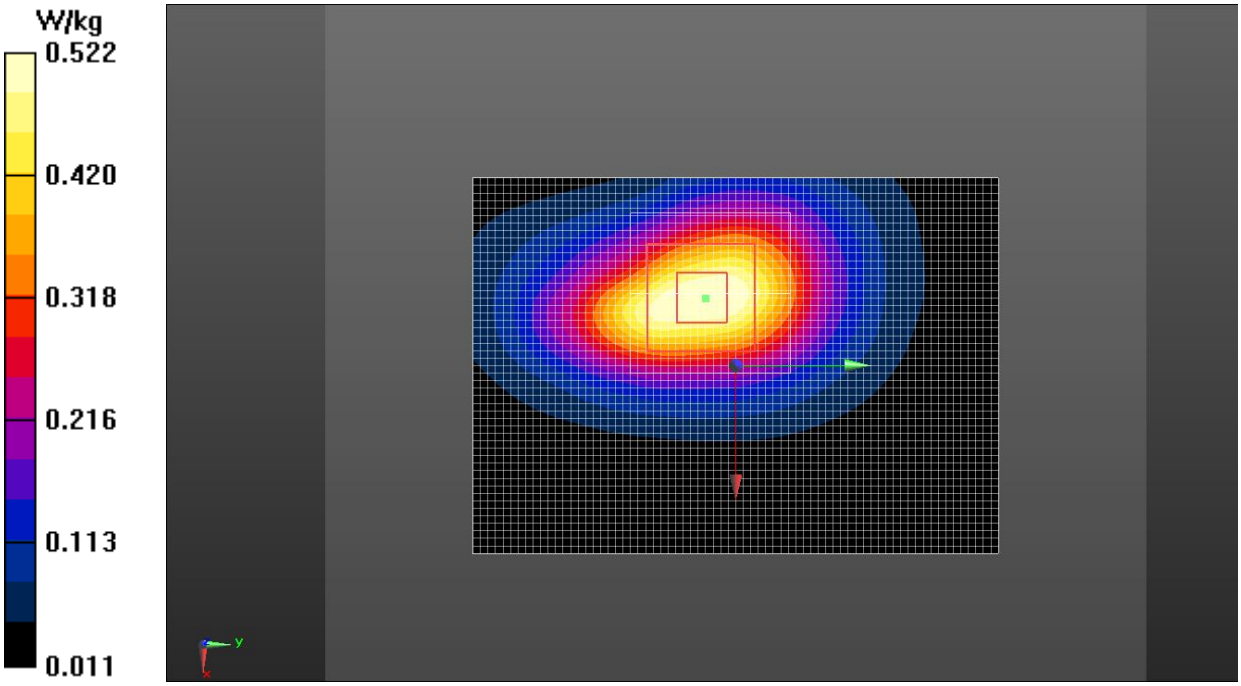


**Fig.12 LTE Band 2**

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**LTE Band 4 Head**
Date: 2018-6-5
Electronics: DAE4 Sn786
Medium: Head 1800 MHz
Medium parameters used (interpolated): f = 1732.5 MHz; $\sigma$ = 1.360 S/m; $\varepsilon_r$ = 39.053; $\rho$ = 1000 kg/m$^3$
Ambient Temperature: 22.0°C Liquid Temperature: 21.5°C
Communication System: UID 0, LTE_FDD (0) Frequency: 1732.5 MHz Duty Cycle: 1:1
Probe: EX3DV4 – SN3633 ConvF (8.12, 8.12, 8.12);

**Left Cheek Middle 1RB_Low/Area Scan (61x101x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 0.368 W/kg

**Left Cheek Middle 1RB_Low/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 3.370 V/m; Power Drift = 0.09 dB
Peak SAR (extrapolated) = 0.539 W/kg
**SAR(1 g) = 0.341 W/kg; SAR(10 g) = 0.211 W/kg**
Maximum value of SAR (measured) = 0.364 W/kg

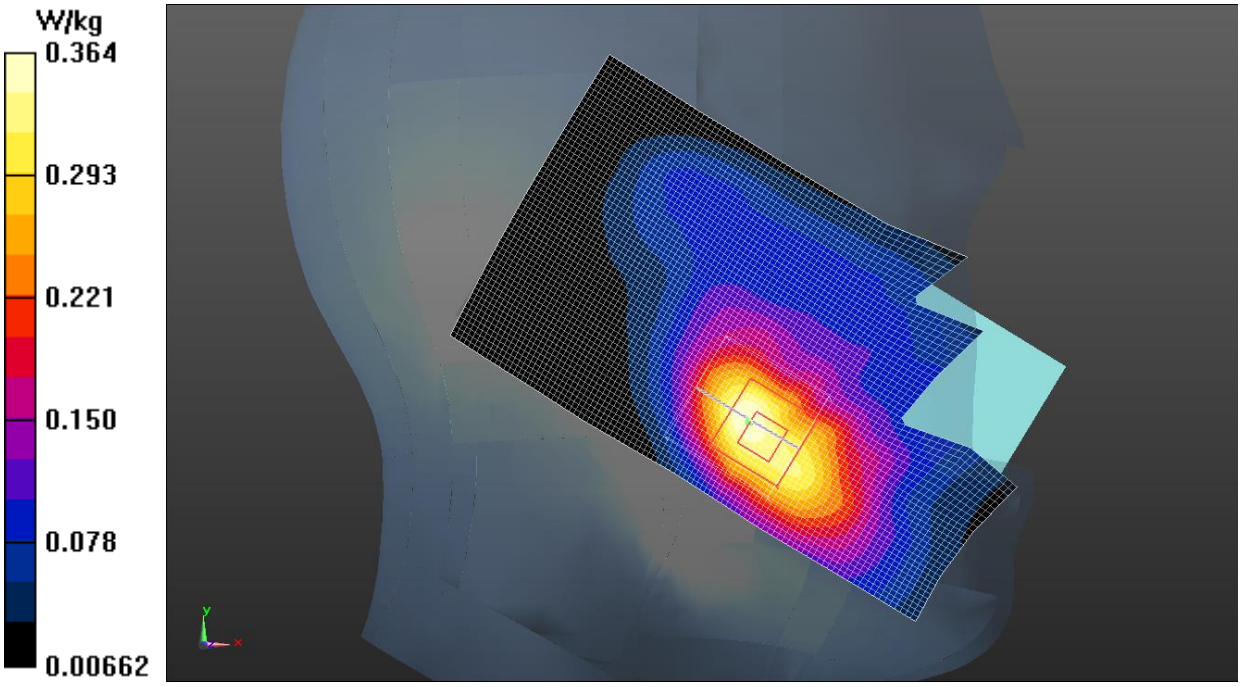


**Fig.13 LTE Band 4**

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**LTE Band 4 Body**
Date: 2018-6-5
Electronics: DAE4 Sn786
Medium: Body 1800 MHz
Medium parameters used (interpolated): f = 1732.5 MHz; $\sigma$ = 1.436 S/m; $\varepsilon_r$ = 54.277; $\rho$ = 1000 kg/m$^3$
Ambient Temperature: 22.0°C Liquid Temperature: 21.5°C
Communication System: UID 0, LTE_FDD (0) Frequency: 1732.5 MHz Duty Cycle: 1:1
Probe: EX3DV4 – SN3633 ConvF (8.05, 8.05, 8.05);

**Bottom side Middle 1RB_Low/Area Scan (51x71x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 0.488 W/kg

**Bottom side Middle 1RB_Low/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 13.53 V/m; Power Drift = 0.12 dB
Peak SAR (extrapolated) = 0.721 W/kg
**SAR(1 g) = 0.441 W/kg; SAR(10 g) = 0.261 W/kg**
Maximum value of SAR (measured) = 0.479 W/kg

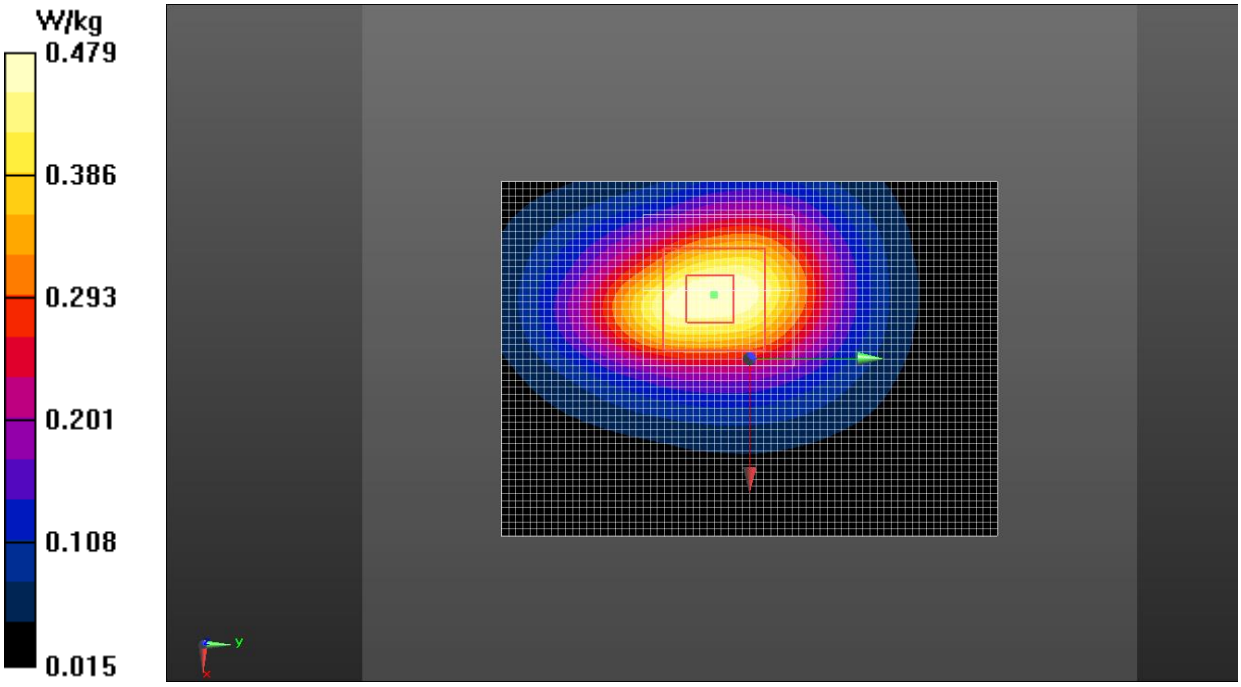


**Fig.14 LTE Band 4**

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**LTE Band 5 Head**
Date: 2018-6-8
Electronics: DAE4 Sn786
Medium: Head 835 MHz
Medium parameters used (extrapolated): f = 836.5 MHz; σ = 0.888 S/m; εr = 41.939; ρ = 1000 kg/$m^3$
Ambient Temperature: 22.0°C Liquid Temperature: 21.5°C
Communication System: UID 0, LTE_FDD (0) Frequency: 836.5 MHz Duty Cycle: 1:1
Probe: EX3DV4 – SN3633 ConvF (9.33, 9.33, 9.33);

**Right Cheek Middle 1RB_Middle/Area Scan (61x101x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 0.136 W/kg

**Right Cheek Middle 1RB_Middle/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 4.135 V/m; Power Drift = 0.13 dB
Peak SAR (extrapolated) = 0.160 W/kg
**SAR(1 g) = 0.124 W/kg; SAR(10 g) = 0.092 W/kg**
Maximum value of SAR (measured) = 0.133 W/kg

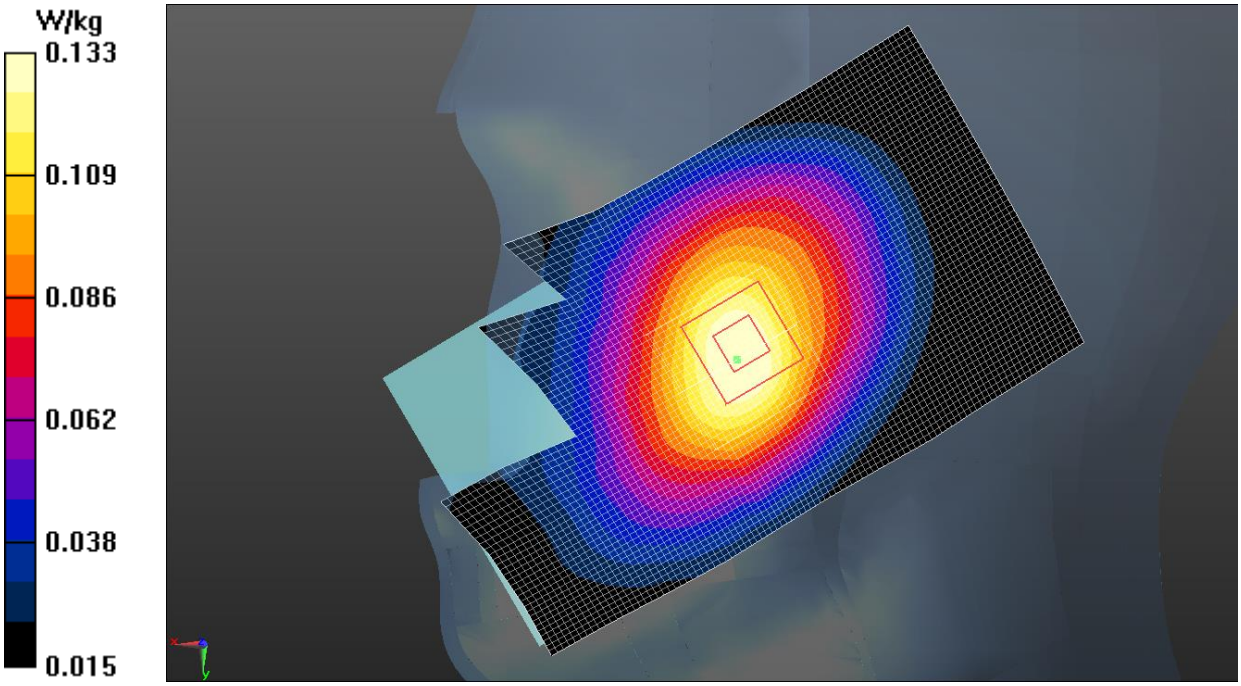


**Fig.15 LTE Band 5**

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**LTE Band 5 Body**
Date: 2018-6-8
Electronics: DAE4 Sn786
Medium: Body 835 MHz
Medium parameters used (interpolated): f = 836.5 MHz; $\sigma$ = 0.994 S/m; $\varepsilon r$ = 53.826; $\rho$ = 1000 kg/$m^3$
Ambient Temperature: 22.0°C Liquid Temperature: 21.5°C
Communication System: UID 0, LTE_FDD (0) Frequency: 836.5 MHz Duty Cycle: 1:1
Probe: EX3DV4 – SN3633 ConvF (9.69, 9.69, 9.69);

**Rear side Middle 1RB_Middle/Area Scan (61x101x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 0.0386 W/kg

**Rear side Middle 1RB_Middle/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 5.893 V/m; Power Drift = 0.01 dB
Peak SAR (extrapolated) = 0.0470 W/kg
**SAR(1 g) = 0.037 W/kg; SAR(10 g) = 0.028 W/kg**
Maximum value of SAR (measured) = 0.0392 W/kg

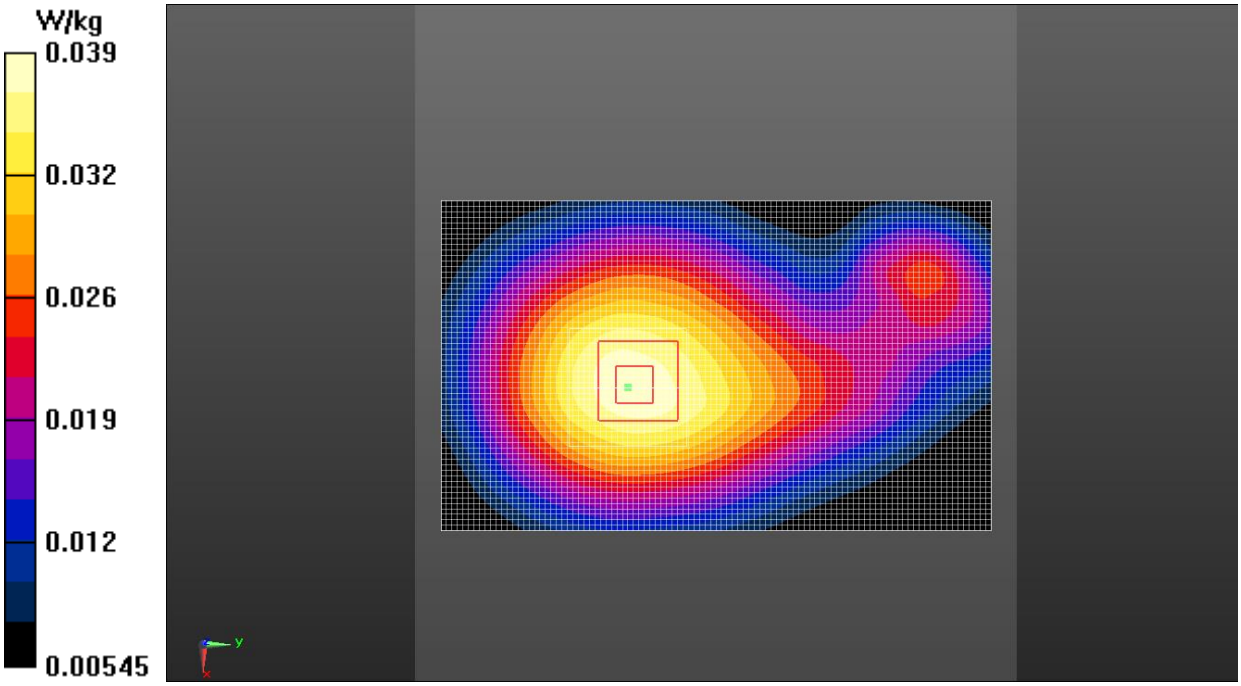


**Fig.16 LTE Band 5**

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**LTE Band 7 Head**
Date: 2018-5-27
Electronics: DAE4 Sn786
Medium: Head 2550 MHz
Medium parameters used (interpolated): f = 2535 MHz; $\sigma$ = 1.943 S/m; $\varepsilon_r$ = 38.316; $\rho$ = 1000 kg/m$^3$
Ambient Temperature: 22.0$^o$C Liquid Temperature: 21.5$^o$C
Communication System: UID 0, LTE_FDD (0) Frequency: 2535 MHz Duty Cycle: 1:1
Probe: EX3DV4 – SN3633 ConvF (7.28, 7.28, 7.28);

**Left Cheek Middle 1RB_High/Area Scan (61x101x1):** Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 0.266 W/kg

**Left Cheek Middle 1RB_High/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 4.364 V/m; Power Drift = 0.00 dB
Peak SAR (extrapolated) = 0.400 W/kg
**SAR(1 g) = 0.227 W/kg; SAR(10 g) = 0.122 W/kg**
Maximum value of SAR (measured) = 0.249 W/kg

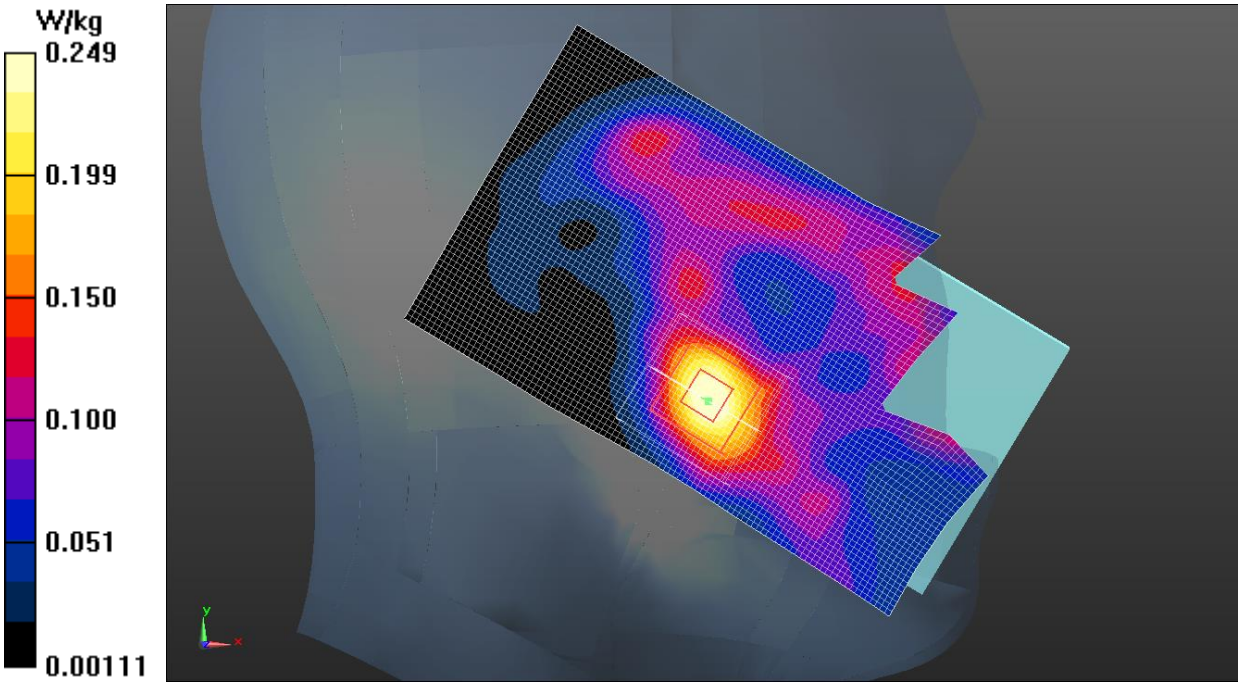


**Fig.17 LTE Band 7**

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**LTE Band 7 Body**
Date: 2018-5-27
Electronics: DAE4 Sn786
Medium: Body 2550 MHz
Medium parameters used (interpolated): f = 2535 MHz; $\sigma$ = 2.054 S/m; $\varepsilon_r$ = 53.387; $\rho$ = 1000 kg/m$^3$
Ambient Temperature: 22.0$^o$C Liquid Temperature: 21.5$^o$C
Communication System: UID 0, 4G_LTE_FDD (0) Frequency: 2535 MHz Duty Cycle: 1:1
Probe: EX3DV4 – SN3633 ConvF (7.31, 7.31, 7.31);

**Front Side Middle 1RB_High/Area Scan (61x101x1):** Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 0.787 W/kg

**Front Side Middle 1RB_High/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 14.12 V/m; Power Drift = 0.12 dB
Peak SAR (extrapolated) = 1.39 W/kg
**SAR(1 g) = 0.701 W/kg; SAR(10 g) = 0.337 W/kg**
Maximum value of SAR (measured) = 0.803 W/kg

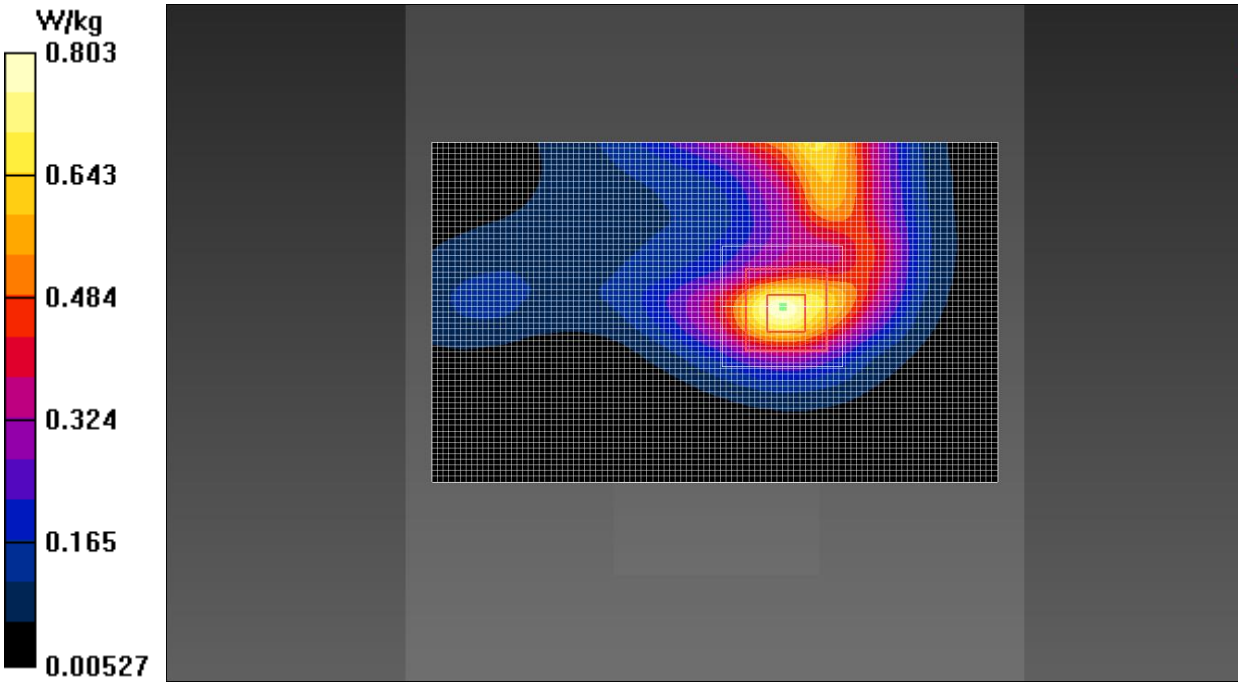


**Fig.18 LTE Band 7**

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**LTE Band 12 Head**
Date: 2018-5-31
Electronics: DAE4 Sn786
Medium: Head 750 MHz
Medium parameters used (interpolated): f = 707.5 MHz; $\sigma$ = 0.864 S/m; $\varepsilon_r$ = 42.012; $\rho$ = 1000 kg/m$^3$
Ambient Temperature: 22.0$^o$C Liquid Temperature: 21.5$^o$C
Communication System: UID 0, LTE_FDD (0) Frequency: 707.5 MHz Duty Cycle: 1:1
Probe: EX3DV4 – SN3633 ConvF (9.33, 9.33, 9.33);

**Left Cheek Middle 1RB_Middle/Area Scan (61x101x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 0.114 W/kg

**Left Cheek Middle 1RB_Middle/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 3.568 V/m; Power Drift = 0.04 dB
Peak SAR (extrapolated) = 0.139 W/kg
**SAR(1 g) = 0.107 W/kg; SAR(10 g) = 0.080 W/kg**
Maximum value of SAR (measured) = 0.112 W/kg

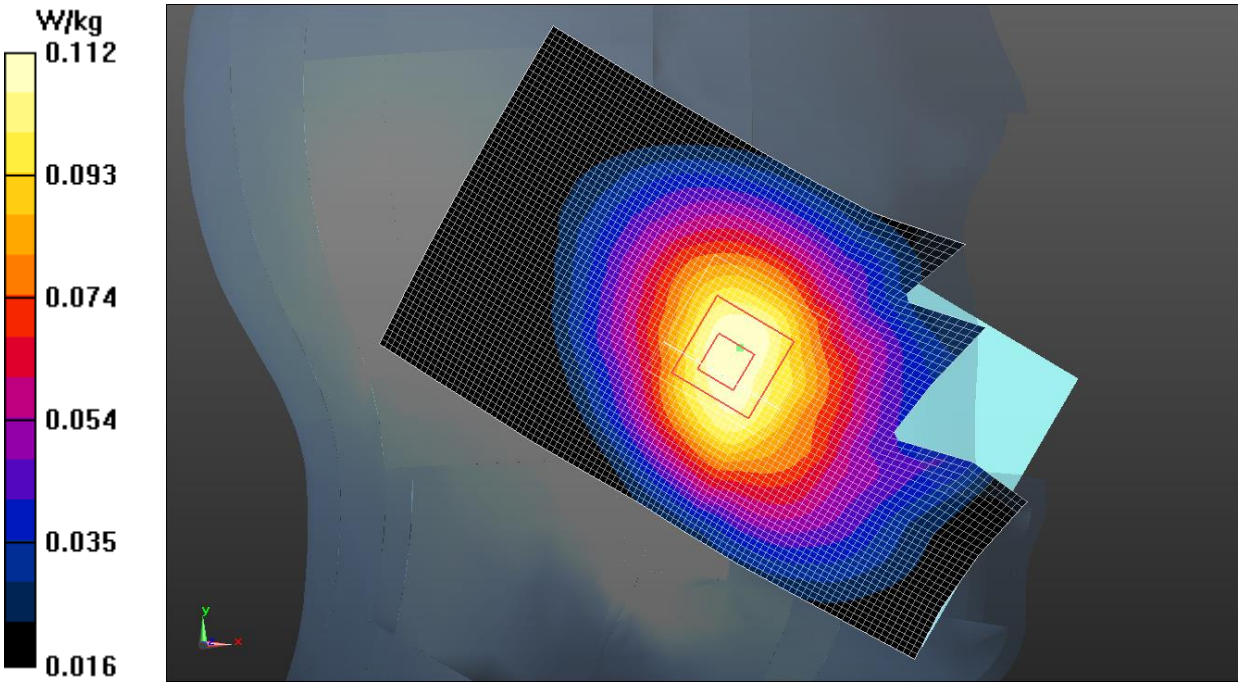


**Fig.19 LTE Band 12**

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**LTE Band 12 Body**
Date: 2018-5-31
Electronics: DAE4 Sn786
Medium: Body 750 MHz
Medium parameters used (interpolated): f = 707.5 MHz; $\sigma$ = 0.925 S/m; $\varepsilon_r$ = 53.496; $\rho$ = 1000 kg/m$^3$
Ambient Temperature: 22.0°C Liquid Temperature: 21.5°C
Communication System: UID 0, LTE_FDD (0) Frequency: 707.5 MHz Duty Cycle: 1:1
Probe: EX3DV4 – SN3633 ConvF (9.69, 9.69, 9.69);

**Rear side Middle 1RB Middle/Area Scan (61x101x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 0.154 W/kg

**Rear side Middle 1RB Middle/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 13.17 V/m; Power Drift = 0.02 dB
Peak SAR (extrapolated) = 0.180 W/kg
**SAR(1 g) = 0.148 W/kg; SAR(10 g) = 0.116 W/kg**
Maximum value of SAR (measured) = 0.155 W/kg

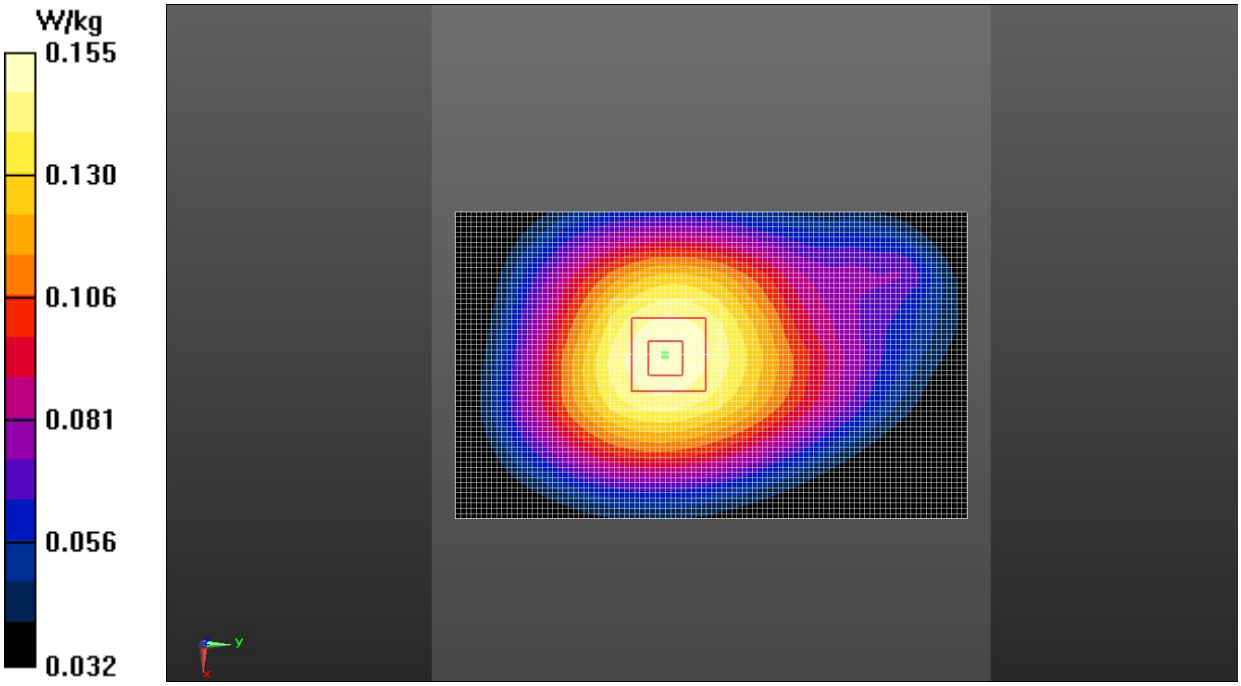


**Fig.20 LTE Band 12**

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**LTE Band 13 Head**
Date: 2018-5-31
Electronics: DAE4 Sn786
Medium: Head 750 MHz
Medium parameters used: f = 782 MHz; $\sigma$ = 0.938 S/m; $\varepsilon_r$ = 40.923; $\rho$ = 1000 kg/m$^3$
Ambient Temperature: 22.0$^o$C Liquid Temperature: 21.5$^o$C
Communication System: UID 0, LTE_FDD (0) Frequency: 782 MHz Duty Cycle: 1:1
Probe: EX3DV4 – SN3633 ConvF (9.33, 9.33, 9.33);

**Left Cheek Middle 1RB_Middle/Area Scan (61x101x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 0.0959 W/kg

**Left Cheek Middle 1RB_Middle/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 3.082 V/m; Power Drift = 0.09 dB
Peak SAR (extrapolated) = 0.115 W/kg
**SAR(1 g) = 0.090 W/kg; SAR(10 g) = 0.066 W/kg**
Maximum value of SAR (measured) = 0.0940 W/kg

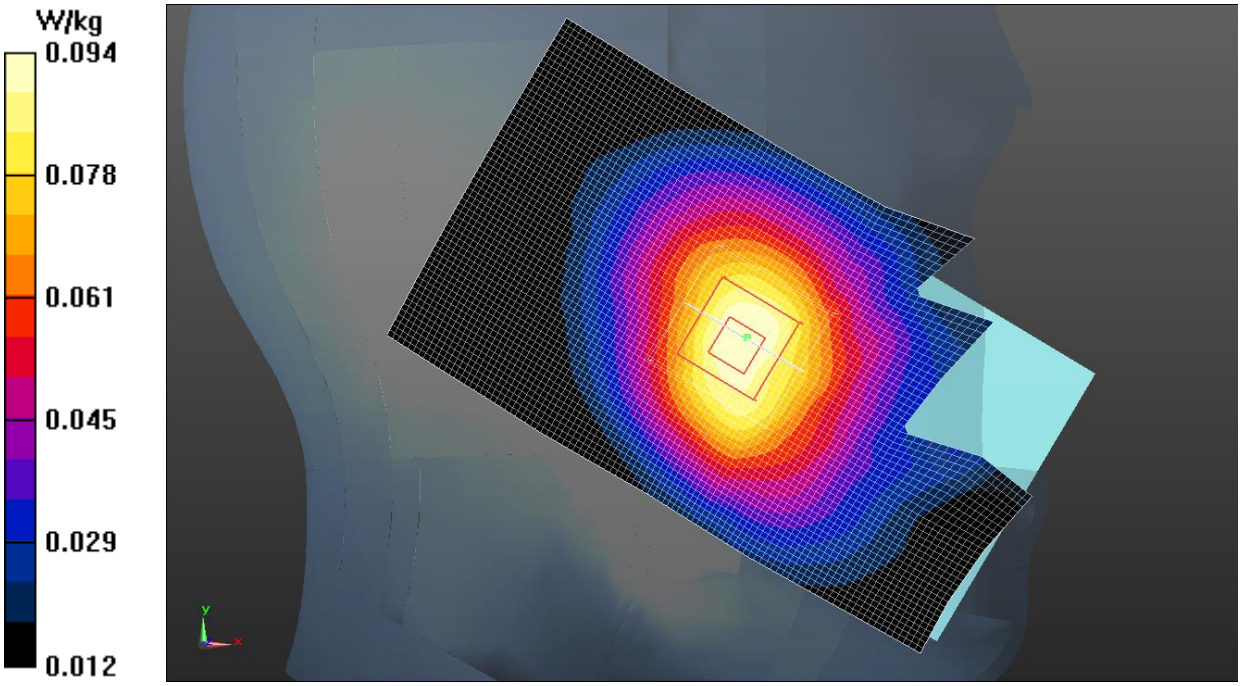


**Fig.21 LTE Band 13**

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**LTE Band 13 Body**
Date: 2018-5-31
Electronics: DAE4 Sn786
Medium: Body 750 MHz
Medium parameters used: f = 782 MHz; $\sigma$ = 0.998 S/m; $\varepsilon_r$ = 53.207; $\rho$ = 1000 kg/m$^3$
Ambient Temperature: 22.0°C Liquid Temperature: 21.5°C
Communication System: UID 0, LTE_FDD (0) Frequency: 782 MHz Duty Cycle: 1:1
Probe: EX3DV4 – SN3633 ConvF (9.69, 9.69, 9.69);

**Rear side Middle 1RB_Middle/Area Scan (61x101x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 0.0991 W/kg

**Rear side Middle 1RB_Middle/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 9.886 V/m; Power Drift = -0.01 dB
Peak SAR (extrapolated) = 0.118 W/kg
**SAR(1 g) = 0.095 W/kg; SAR(10 g) = 0.073 W/kg**
Maximum value of SAR (measured) = 0.0998 W/kg

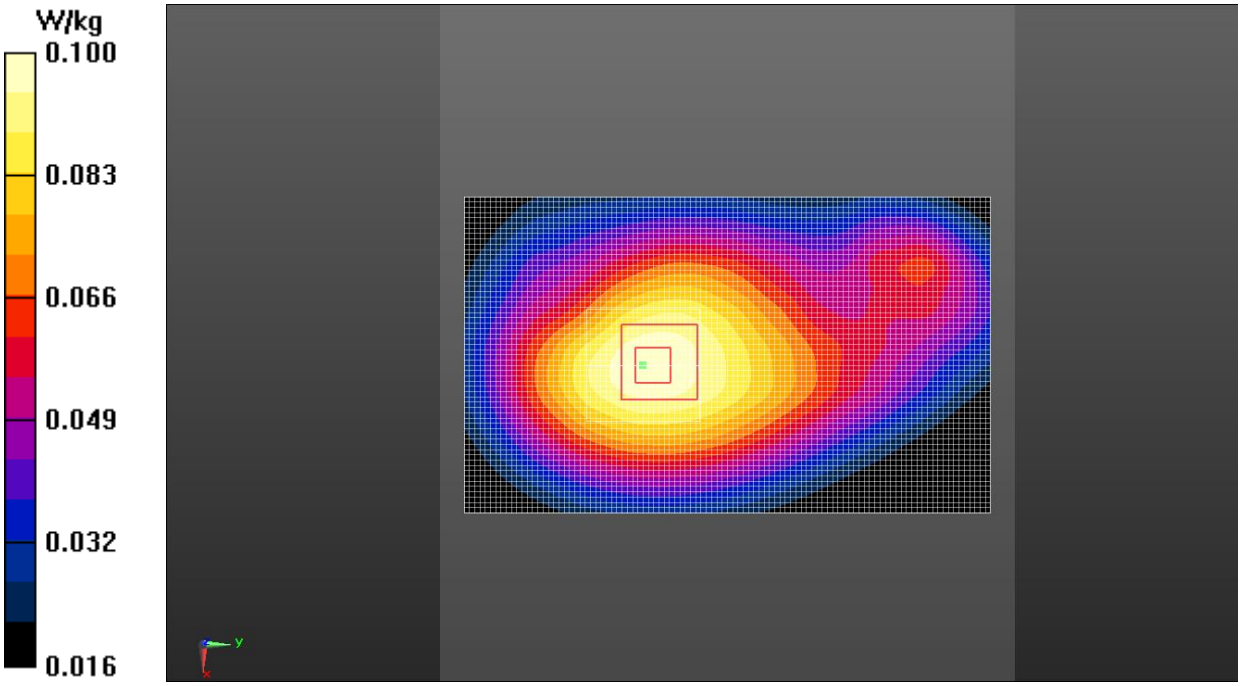


**Fig.22 LTE Band 13**

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**LTE Band 25 Head**
Date: 2018-5-25
Electronics: DAE4 Sn786
Medium: Head 1900 MHz
Medium parameters used (interpolated): f = 1882.5 MHz; σ = 1.394 S/m; εr = 39.632; ρ = 1000 kg/m3
Ambient Temperature: 22.0°C Liquid Temperature: 21.5°C
Communication System: UID 0, LTE_FDD (0) Frequency: 1882.5 MHz Duty Cycle: 1:1
Probe: EX3DV4 – SN3633 ConvF (7.81, 7.81, 7.81);

**Left Cheek Middle 1RB_Low/Area Scan (61x101x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 0.509 W/kg

**Left Cheek Middle 1RB_Low/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 4.854 V/m; Power Drift = 0.08 dB
Peak SAR (extrapolated) = 0.755 W/kg
**SAR(1 g) = 0.459 W/kg; SAR(10 g) = 0.272 W/kg**
Maximum value of SAR (measured) = 0.495 W/kg

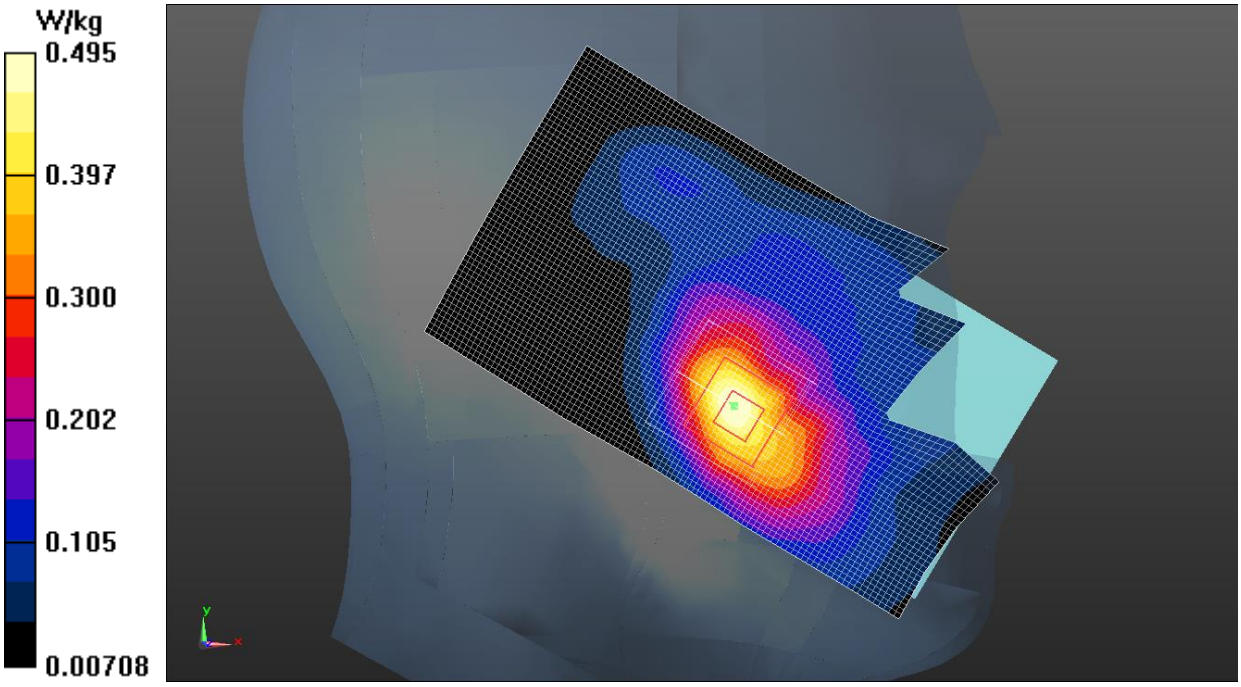


**Fig.23 LTE Band 25**

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**LTE Band 25 Body**
Date: 2018-5-25
Electronics: DAE4 Sn786
Medium: Body 1900 MHz
Medium parameters used (interpolated): f = 1882.5 MHz; σ = 1.546 S/m; εr = 52.819; ρ = 1000 kg/m3
Ambient Temperature: 22.0°C Liquid Temperature: 21.5°C
Communication System: UID 0, LTE_FDD (0) Frequency: 1882.5 MHz Duty Cycle: 1:1
Probe: EX3DV4 – SN3633 ConvF (7.75, 7.75, 7.75);

**Bottom side Middle 1RB_Low/Area Scan (51x71x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 0.568 W/kg

**Bottom side Middle 1RB_Low/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 12.95 V/m; Power Drift = 0.01 dB
Peak SAR (extrapolated) = 0.837 W/kg
**SAR(1 g) = 0.455 W/kg; SAR(10 g) = 0.271 W/kg**
Maximum value of SAR (measured) = 0.546 W/kg

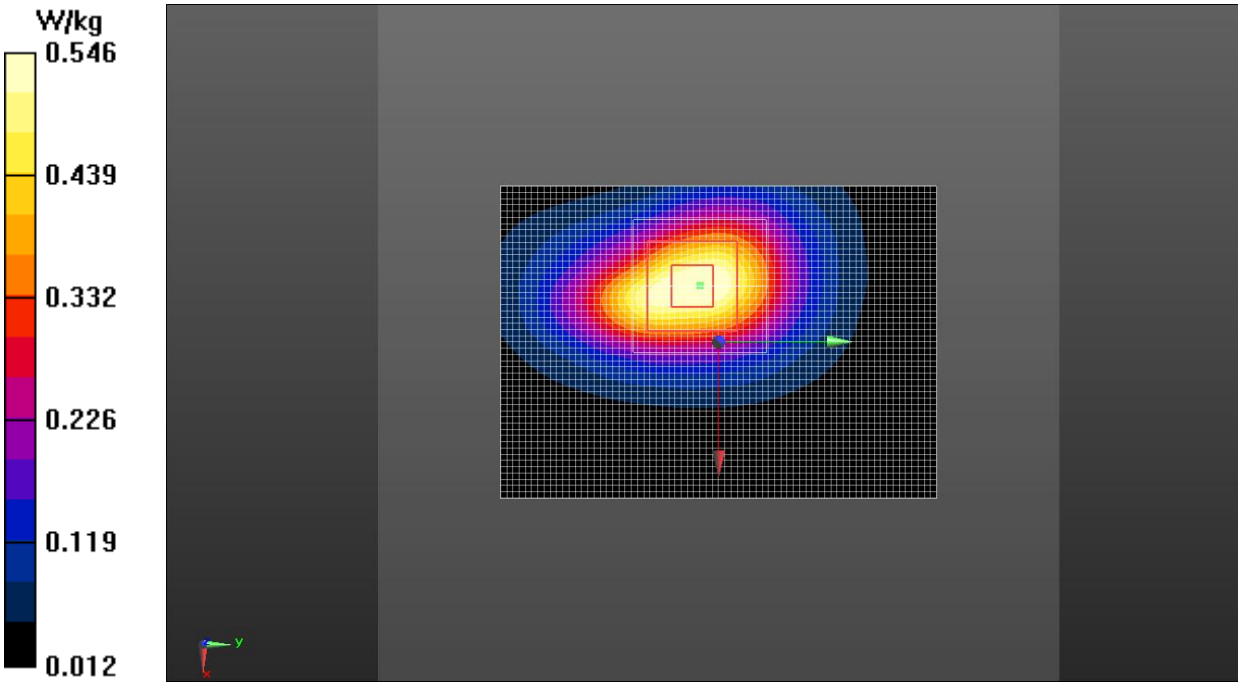


**Fig.24 LTE Band 25**

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**LTE Band 26 Head**
Date: 2018-6-8
Electronics: DAE4 Sn786
Medium: Head 835 MHz
Medium parameters used (interpolated): f = 831.5 MHz; σ = 0.883 S/m; εr = 41.976; ρ = 1000 kg/m3
Ambient Temperature: 22.0°C Liquid Temperature: 21.5°C
Communication System: UID 0, LTE_FDD (0) Frequency: 831.5 MHz Duty Cycle: 1:1
Probe: EX3DV4 – SN3633 ConvF (9.33, 9.33, 9.33);

**Right Cheek Middle 1RB_High/Area Scan (61x101x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 0.134 W/kg

**Right Cheek Middle 1RB_High/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 4.079 V/m; Power Drift = 0.08 dB
Peak SAR (extrapolated) = 0.154 W/kg
**SAR(1 g) = 0.121 W/kg; SAR(10 g) = 0.090 W/kg**
Maximum value of SAR (measured) = 0.129 W/kg

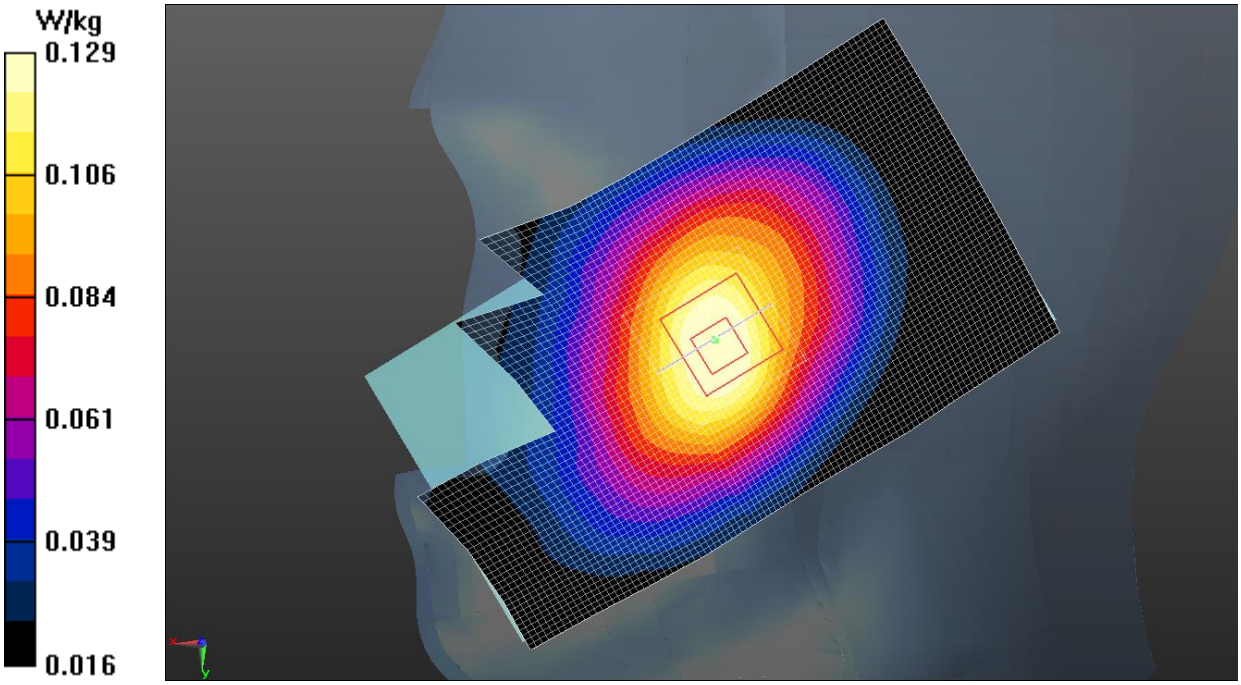


**Fig.25 LTE Band 26**

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**LTE Band 26 Body**
Date: 2018-6-8
Electronics: DAE4 Sn786
Medium: Body 835 MHz
Medium parameters used (interpolated): f = 831.5 MHz; σ = 0.990 S/m; εr = 41.874; ρ = 1000 kg/m3
Ambient Temperature: 22.0°C Liquid Temperature: 21.5°C
Communication System: UID 0, LTE_FDD (0) Frequency: 831.5 MHz Duty Cycle: 1:1
Probe: EX3DV4 – SN3633 ConvF (9.69, 9.69, 9.69);

**Rear side Middle 1RB_High /Area Scan (61x101x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 0.0416 W/kg

**Rear side Middle 1RB_High/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 6.133 V/m; Power Drift = -0.02 dB
Peak SAR (extrapolated) = 0.0500 W/kg
**SAR(1 g) = 0.040 W/kg; SAR(10 g) = 0.030 W/kg**
Maximum value of SAR (measured) = 0.0417 W/kg

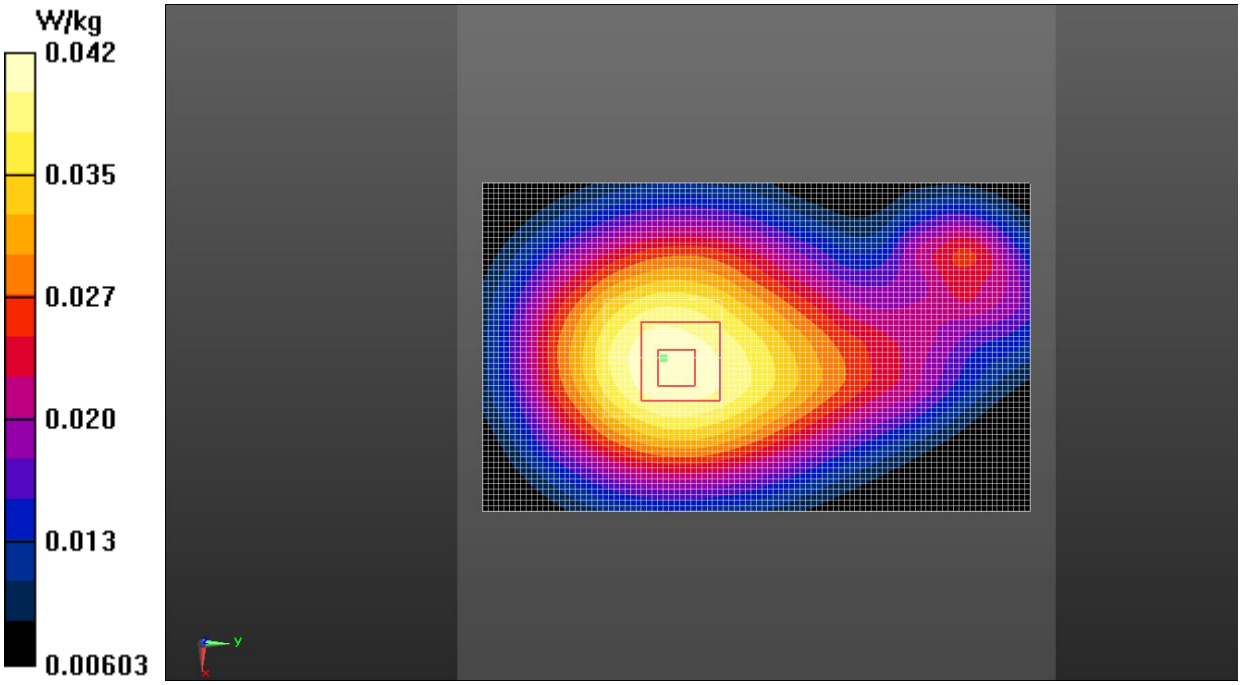


**Fig.26 LTE Band 26**

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**LTE Band 38 Head**
Date: 2018-5-27
Electronics: DAE4 Sn786
Medium: Head 2550 MHz
Medium parameters used (interpolated): f = 2595 MHz; $\sigma$ = 2.016 S/m; $\varepsilon_r$ = 38.158; $\rho$ = 1000 kg/m$^3$
Ambient Temperature: 22.0$^o$C Liquid Temperature: 21.5$^o$C
Communication System: UID 0, LTE_TDD (0) Frequency: 2595 MHz Duty Cycle: 1:1.58
Probe: EX3DV4 – SN3633 ConvF (7.28, 7.28, 7.28);

**Left Cheek Middle 1RB_Low/Area Scan (61x101x1):** Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 0.291 W/kg

**Left Cheek Middle 1RB_Low/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 3.664 V/m; Power Drift = 0.03 dB
Peak SAR (extrapolated) = 0.397 W/kg
**SAR(1 g) = 0.227 W/kg; SAR(10 g) = 0.122 W/kg**
Maximum value of SAR (measured) = 0.271 W/kg

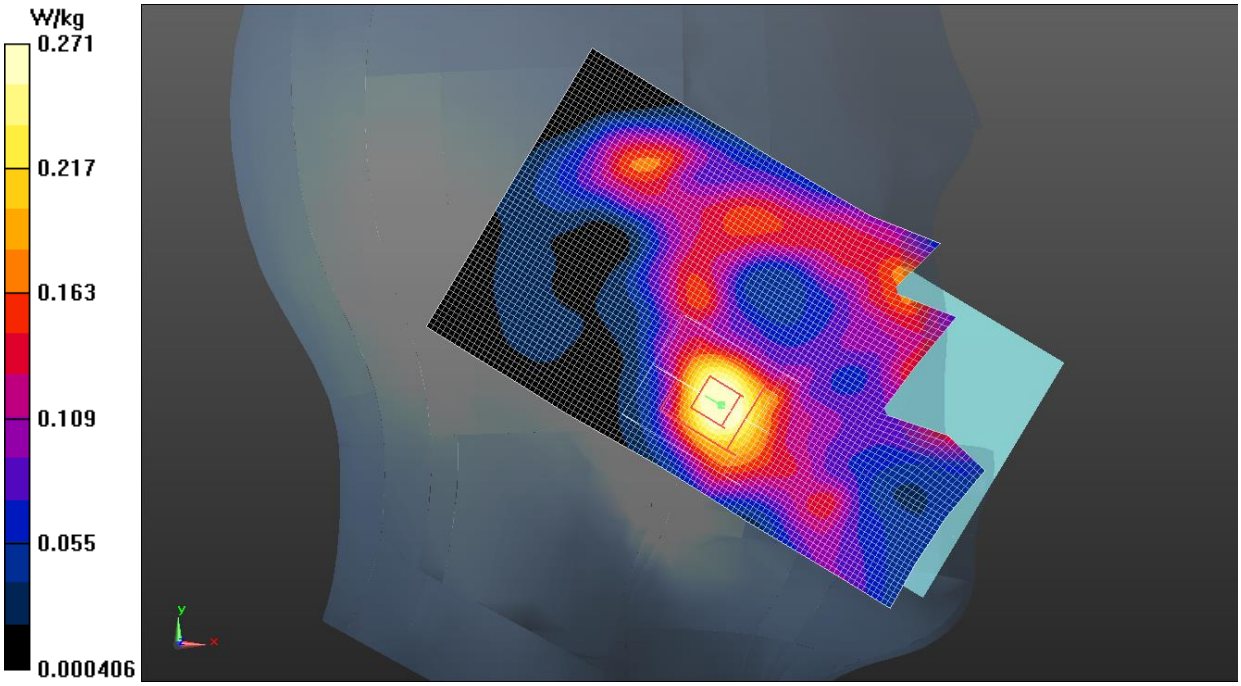


**Fig.27 LTE Band 38**

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**LTE Band 38 Body**
Date: 2018-5-27
Electronics: DAE4 Sn786
Medium: Body 2550 MHz
Medium parameters used (interpolated): f = 2595 MHz; σ = 2.134 S/m; εr = 53.196; ρ = 1000 kg/$m^3$
Ambient Temperature: 22.0°C Liquid Temperature: 21.5°C
Communication System: UID 0, LTE_TDD (0) Frequency: 2595 MHz Duty Cycle: 1:1.58
Probe: EX3DV4 – SN3633 ConvF (7.31, 7.31, 7.31);

**Front Side Middle 1RB_Low /Area Scan (61x101x1):** Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 0.452 W/kg

**Front Side Middle 1RB_Low /Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 10.78 V/m; Power Drift = 0.10 dB
Peak SAR (extrapolated) = 0.799 W/kg
**SAR(1 g) = 0.399 W/kg; SAR(10 g) = 0.192 W/kg**
Maximum value of SAR (measured) = 0.453 W/kg

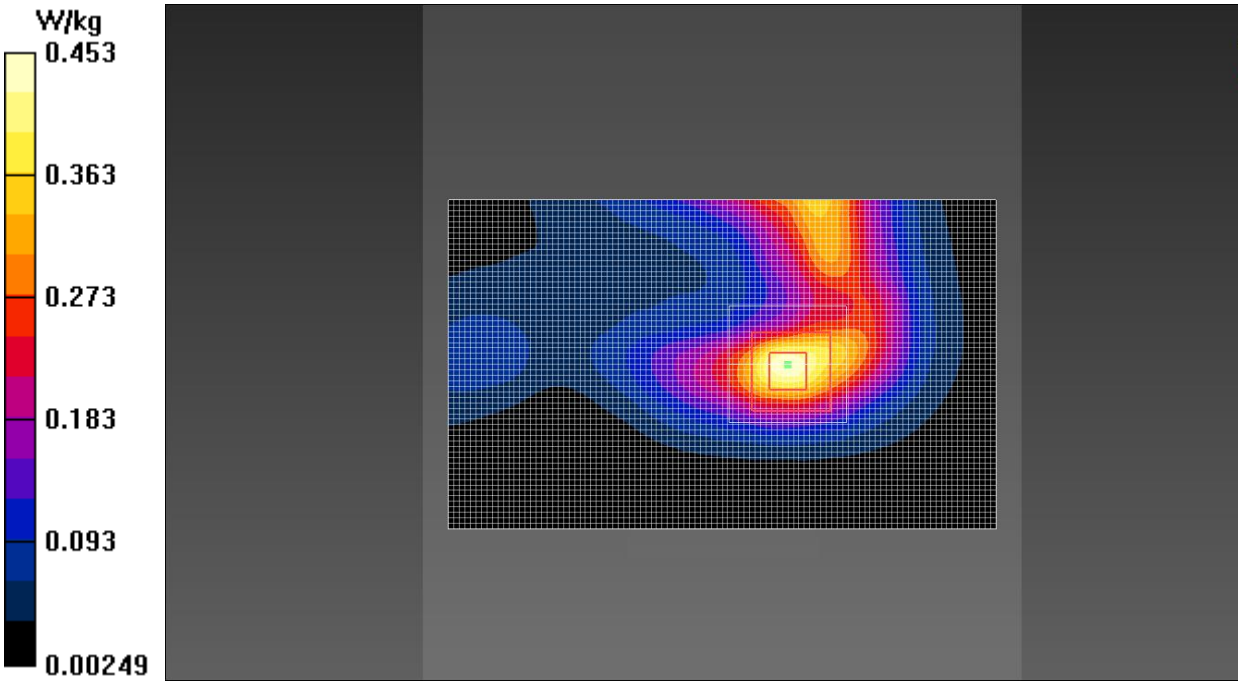


**Fig.28 LTE Band 38**

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**LTE Band 66 Head**
Date: 2018-6-5
Electronics: DAE4 Sn786
Medium: Head 1800 MHz
Medium parameters used: f = 1745 MHz; $\sigma$ = 1.384 S/m; $\varepsilon_r$ = 39.014; $\rho$ = 1000 kg/m$^3$
Ambient Temperature: 22.0°C Liquid Temperature: 21.5°C
Communication System: UID 0, LTE_FDD (0) Frequency: 1745 MHz Duty Cycle: 1:1
Probe: EX3DV4 – SN3633 ConvF (8.12, 8.12, 8.12);

**Left Cheek Middle 1RB_Low/Area Scan (61x101x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 0.391 W/kg

**Left Cheek Middle 1RB_Low/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 4.165 V/m; Power Drift = 0.04 dB
Peak SAR (extrapolated) = 0.558 W/kg
**SAR(1 g) = 0.351 W/kg; SAR(10 g) = 0.215 W/kg**
Maximum value of SAR (measured) = 0.373 W/kg

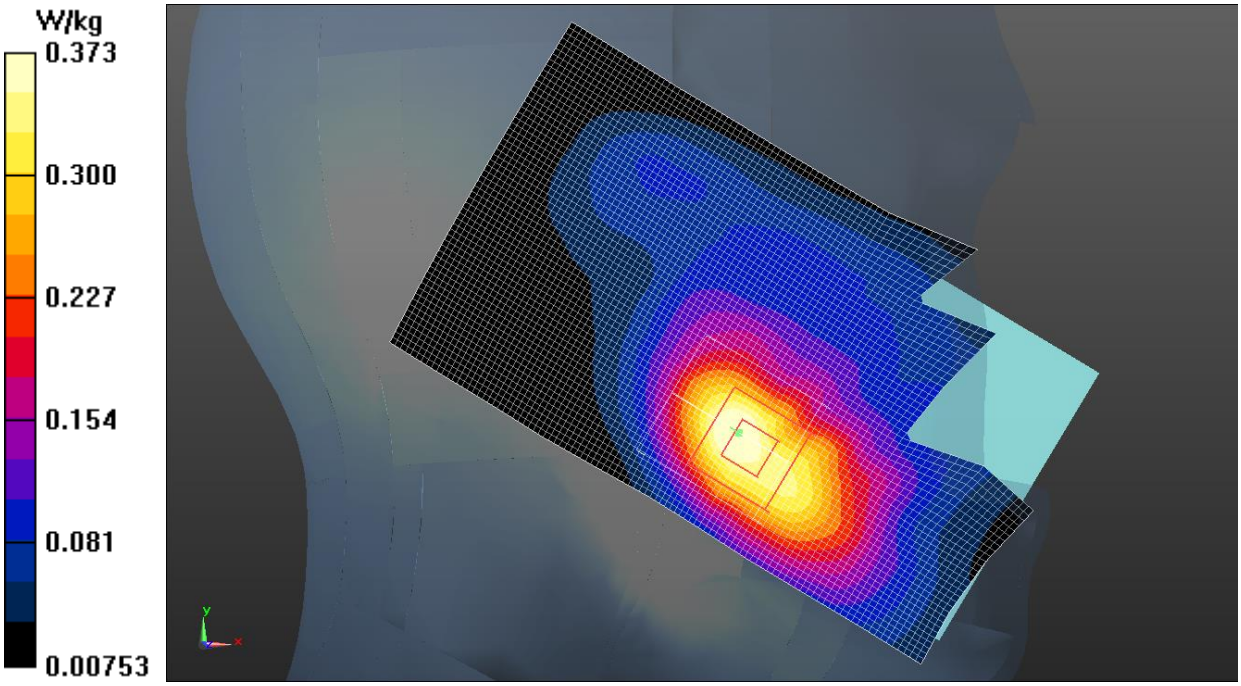


**Fig.29 LTE Band 66**

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**LTE Band 66 Body**
Date: 2018-6-5
Electronics: DAE4 Sn786
Medium: Body 1800 MHz
Medium parameters used: f = 1745 MHz; $\sigma$ = 1.456 S/m; $\varepsilon r$ = 54.215; $\rho$ = 1000 kg/m$^3$
Ambient Temperature: 22.0$^o$C Liquid Temperature: 21.5$^o$C
Communication System: UID 0, LTE_FDD (0) Frequency: 1745 MHz Duty Cycle: 1:1
Probe: EX3DV4 – SN3633 ConvF (8.05, 8.05, 8.05);

**Front side Middle 1RB_Low e/Area Scan (61x101x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 0.503 W/kg

**Front side Middle 1RB_Low /Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 14.06 V/m; Power Drift = 0.15 dB
Peak SAR (extrapolated) = 0.721 W/kg
**SAR(1 g) = 0.444 W/kg; SAR(10 g) = 0.271 W/kg**
Maximum value of SAR (measured) = 0.500 W/kg

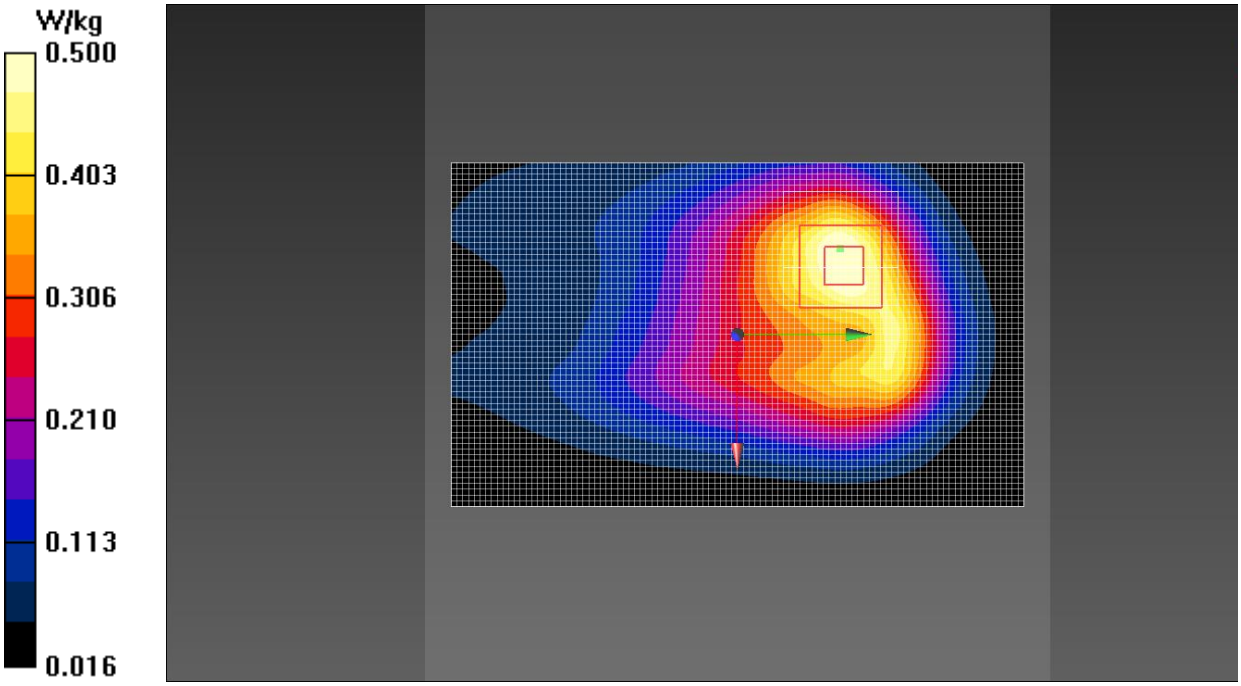


**Fig.30 LTE Band 66**

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**Wi-Fi 2.4G Head**
Date: 2018-7-8
Electronics: DAE4 Sn786
Medium: Head 2450 MHz
Medium parameters used (interpolated): f = 2437 MHz; $\sigma$ = 1.842 S/m; $\varepsilon_r$ = 38.512; $\rho$ = 1000 kg/m$^3$
Ambient Temperature: 22.0$^o$C Liquid Temperature: 21.5$^o$C
Communication System: UID 0, WiFi (0) Frequency: 2437 MHz Duty Cycle: 1:1
Probe: EX3DV4 – SN3633 ConvF (7.42, 7.42, 7.42);

**Left Cheek Middle/Area Scan (61x111x1):** Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 0.791 W/kg

**Left Cheek Middle/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 12.64 V/m; Power Drift = 0.09 dB
Peak SAR (extrapolated) = 1.25 W/kg
**SAR(1 g) = 0.576 W/kg; SAR(10 g) = 0.261 W/kg**
Maximum value of SAR (measured) = 0.654 W/kg

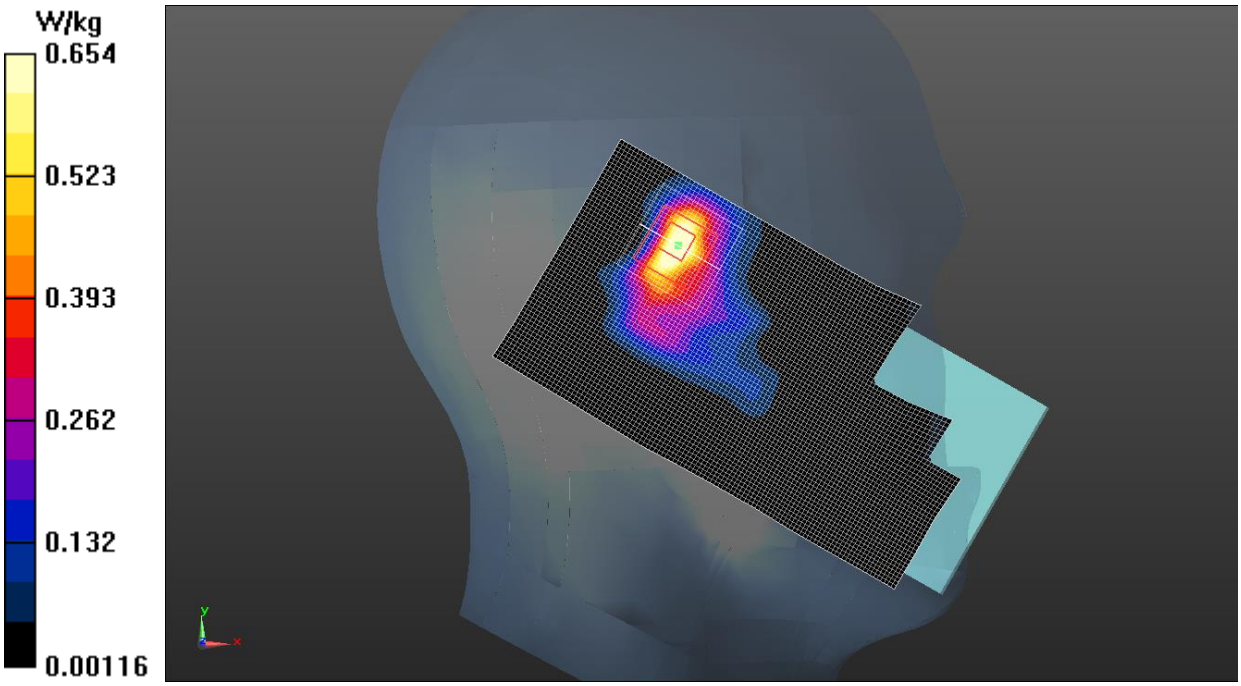


**Fig.31 Wi-Fi 2.4G**

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**Wi-Fi 2.4G Body**
Date: 2018-7-8
Electronics: DAE4 Sn786
Medium: Body 2450 MHz
Medium parameters used: f = 2437 MHz; $\sigma$ = 1.904 S/m; $\varepsilon_r$ = 53.833; $\rho$ = 1000 kg/m$^3$
Ambient Temperature: 22.0°C Liquid Temperature: 21.5°C
Communication System: UID 0, WiFi (0) Frequency: 2437 MHz Duty Cycle: 1:1
Probe: EX3DV4 – SN3633 ConvF (7.47, 7.47, 7.47);

**Rear Side Middle/Area Scan (61x101x1):** Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 0.174 W/kg

**Rear Side Middle/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 2.154 V/m; Power Drift = -0.03 dB
Peak SAR (extrapolated) = 0.279 W/kg
**SAR(1 g) = 0.161 W/kg; SAR(10 g) = 0.085 W/kg**
Maximum value of SAR (measured) = 0.169 W/kg

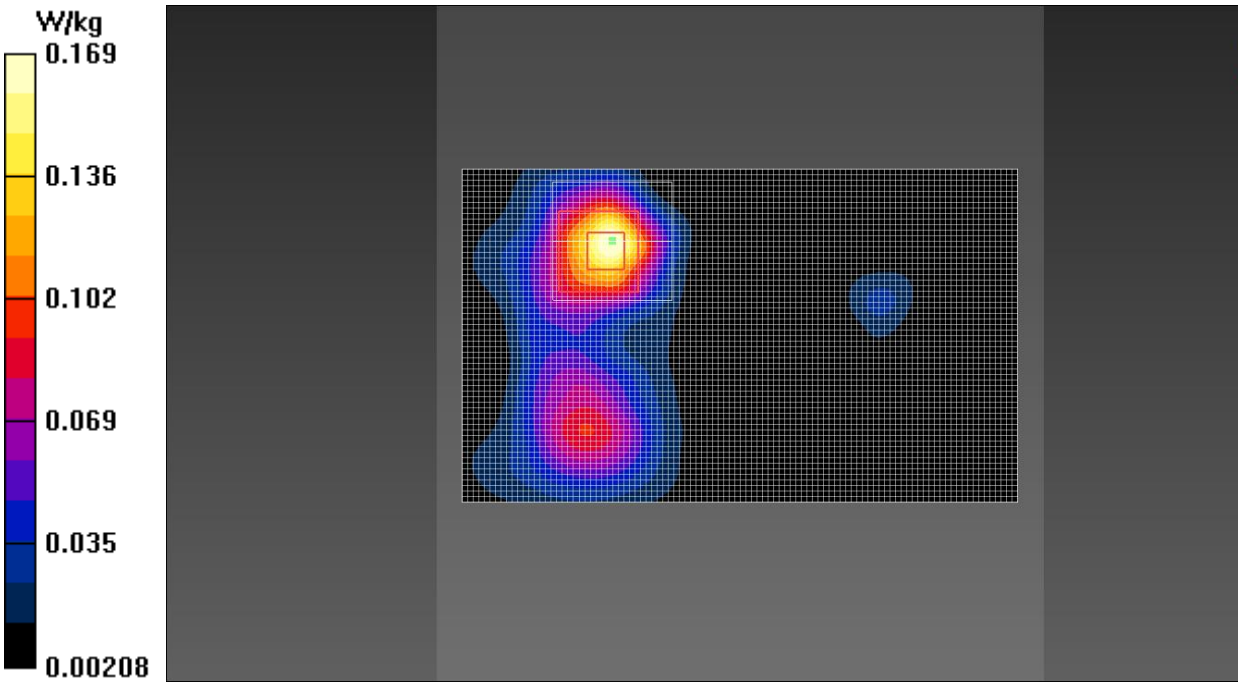


**Fig.32 Wi-Fi 2.4G**

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**Wi-Fi 5G Head**
Date: 2018-7-11
Electronics: DAE4 Sn786
Medium: Head 5800 MHz
Medium parameters used: f = 5825 MHz; $\sigma$ = 5.406 S/m; $\varepsilon_r$ = 34.365; $\rho$ = 1000 kg/m$^3$
Ambient Temperature: 22.0°C Liquid Temperature: 21.5°C
Communication System: UID 0, WIFI 5G (0) Frequency: 5825 MHz Duty Cycle: 1:1
Probe: EX3DV4 - SN3633 ConvF (4.81, 4.81, 4.81);

**Right Tilt CH165/Area Scan (61x61x1):** Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) =1.17 W/kg

**Right Tilt CH165/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=4mm, dy=4mm, dz=1.4mm
Reference Value = 4.098 V/m; Power Drift = 0.04 dB
Peak SAR (extrapolated) = 2.15 W/kg
**SAR(1 g) = 0.886 W/kg; SAR(10 g) = 0.275 W/kg**
Maximum value of SAR (measured) = 1.46 W/kg

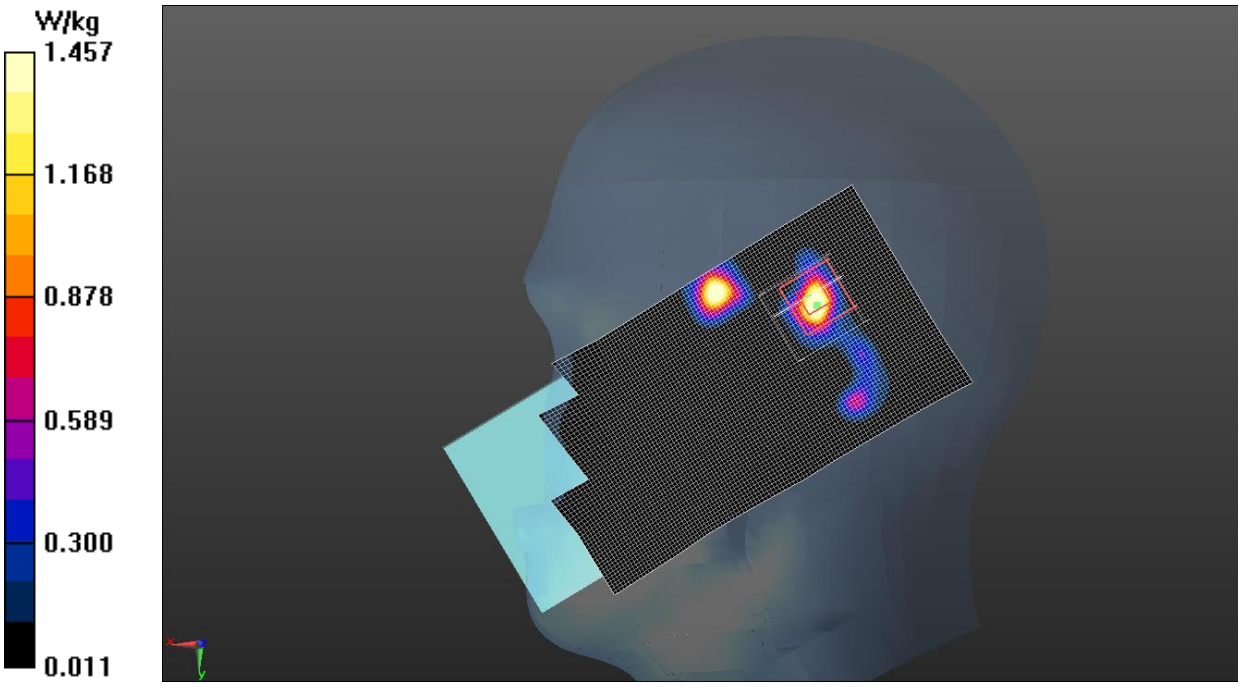


**Fig.33 Wi-Fi 5G**

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**Wi-Fi 5G Body**
Date: 2018-7-11
Electronics: DAE4 Sn786
Medium: Body 5800 MHz
Medium parameters used: f = 5785 MHz; $\sigma$ = 6.032 S/m; $\varepsilon_r$ = 47.464; $\rho$ = 1000 kg/m$^3$
Ambient Temperature: 22.0°C Liquid Temperature: 21.5°C
Communication System: UID 0, WIFI 5G (0) Frequency: 5785 MHz Duty Cycle: 1:1
Probe: EX3DV4 - SN3633 ConvF (4.48, 4.48, 4.48);

**Top side CH157/Area Scan (61x61x1):** Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 0.254 W/kg

**Top side CH157/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=4mm, dy=4mm, dz=1.4mm
Reference Value = 0.4570 V/m; Power Drift = 0.07 dB
Peak SAR (extrapolated) = 0.886 W/kg
**SAR(1 g) = 0.219 W/kg; SAR(10 g) = 0.062 W/kg**
Maximum value of SAR (measured) = 0.257 W/kg

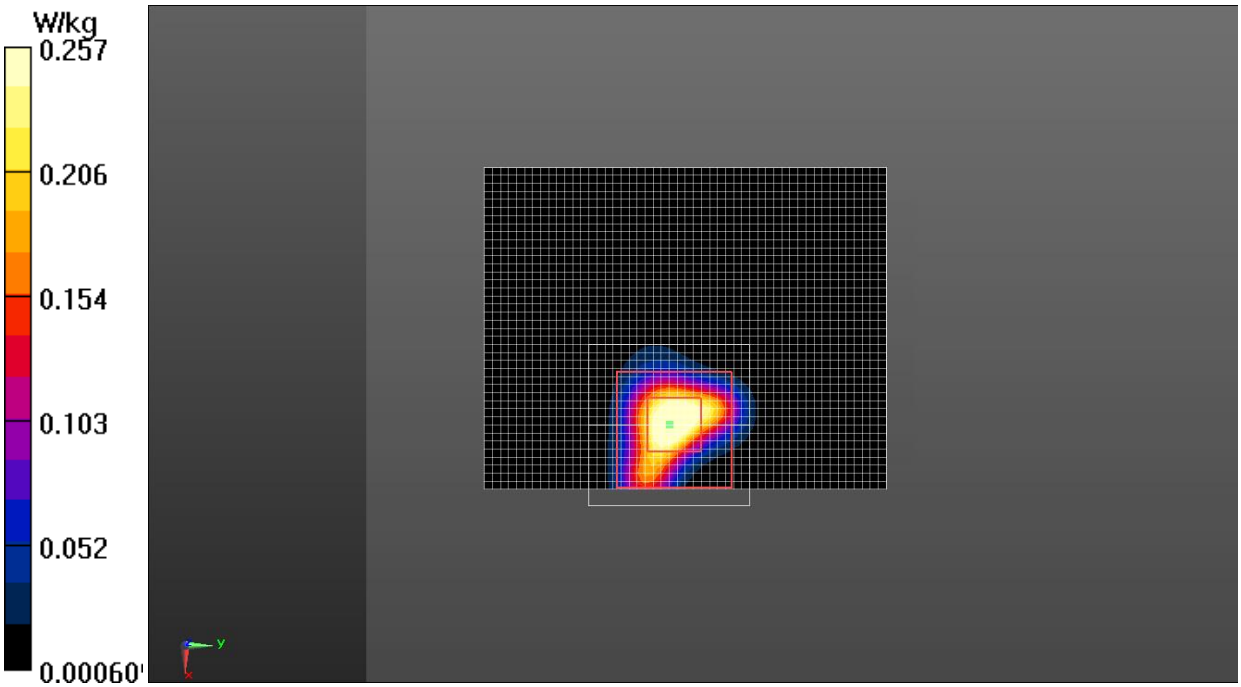


**Fig.34 Wi-Fi 5G**

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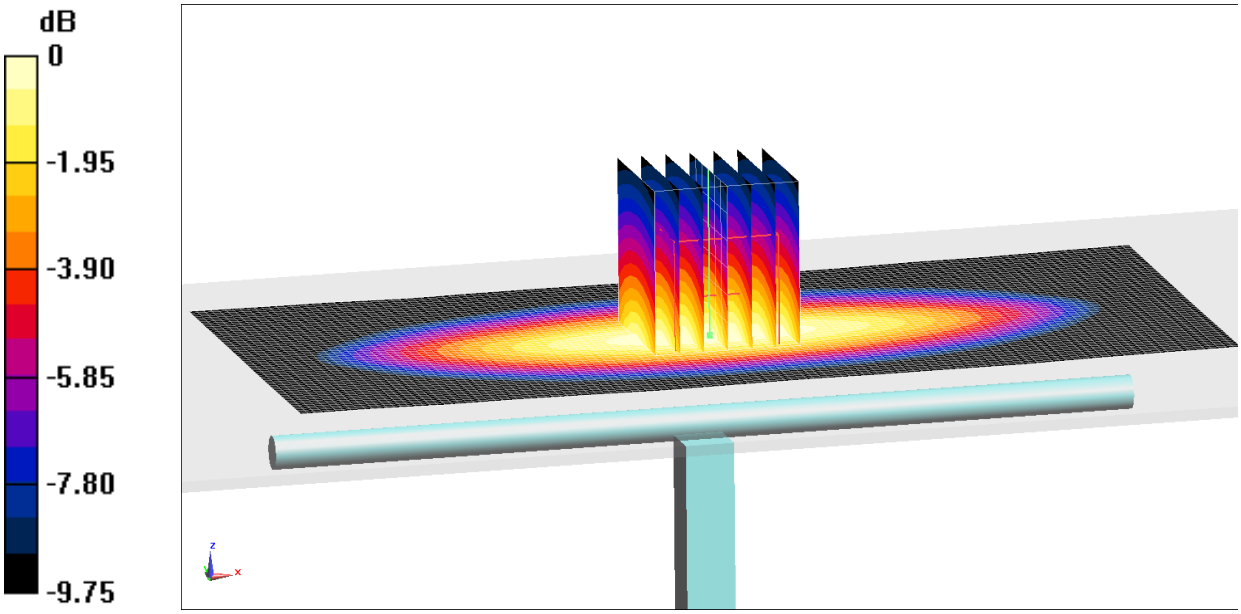
# ANNEX B SystemVerification Results

## 750MHz

Date: 2018-5-31
Electronics: DAE4 Sn786
Medium: Head 750 MHz
Medium parameters used: f = 750 MHz; σ = 0.905 S/m; εr = 41.382; ρ = 1000 kg/m3
Ambient Temperature: 22.5°C Liquid Temperature: 22.0°C
Communication System: CW Frequency: 750 MHz Duty Cycle: 1:1
Probe: EX3DV4 – SN3633 ConvF (9.33, 9.33, 9.33);

**System Validation /Area Scan (81x191x1):** Interpolated grid: dx=1.000 mm, dy=1.000 mm
Reference Value = 58.752 V/m; Power Drift = 0.02 dB
**SAR(1 g) = 2.12 W/kg; SAR(10 g) = 1.37 W/kg**
Maximum value of SAR (interpolated) = 2.25 W/kg

**System Validation /Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 58.752 V/m; Power Drift = 0.02 dB
Peak SAR (extrapolated) = 2.74 W/kg
**SAR(1 g) = 2.14 W/kg; SAR(10 g) = 1.39 W/kg**
Maximum value of SAR (measured) = 2.30 W/kg




0 dB = 2.30 W/kg = 3.62 dB W/kg

**Fig.B.1. Validation 750MHz 250mW**

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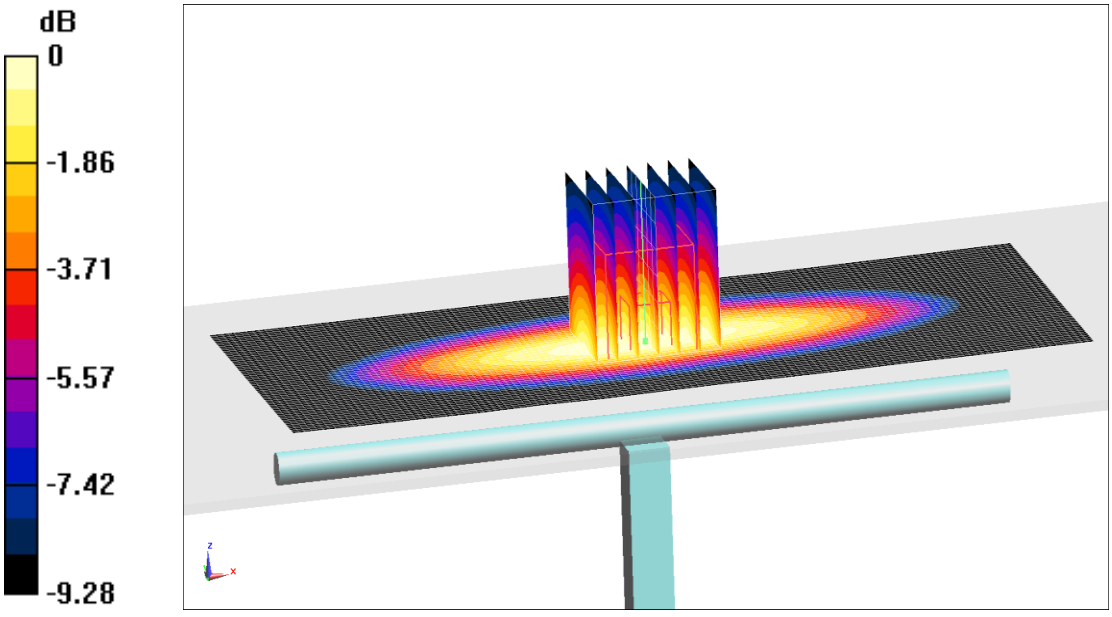
## 750MHz

Date: 2018-5-31
Electronics: DAE4 Sn786
Medium: Body 750 MHz
Medium parameters used: f = 750 MHz; $\sigma$ = 0.967 S/m; $\varepsilon_r$ = 53.418; $\rho$ = 1000 kg/m$^3$
Ambient Temperature: 22.5$^o$C Liquid Temperature: 22.0$^o$C
Communication System: CW Frequency: 750 MHz Duty Cycle: 1:1
Probe: EX3DV4 – SN3633 ConvF (9.69, 9.69, 9.69);

**System Validation /Area Scan (81x191x1):** Interpolated grid: dx=1.000 mm, dy=1.000 mm
Reference Value = 57.336 V/m; Power Drift = 0.05 dB
**SAR(1 g) = 2.15 W/kg; SAR(10 g) = 1.40 W/kg**
Maximum value of SAR (interpolated) = 2.36 W/kg

**System Validation /Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 57.336 V/m; Power Drift = 0.05 dB
Peak SAR (extrapolated) = 2.85 W/kg
**SAR(1 g) = 2.18 W/kg; SAR(10 g) = 1.42 W/kg**
Maximum value of SAR (measured) = 2.39 W/kg




0 dB = 2.39 W/kg = 3.78 dB W/kg

**Fig.B.2. Validation 750MHz 250mW**

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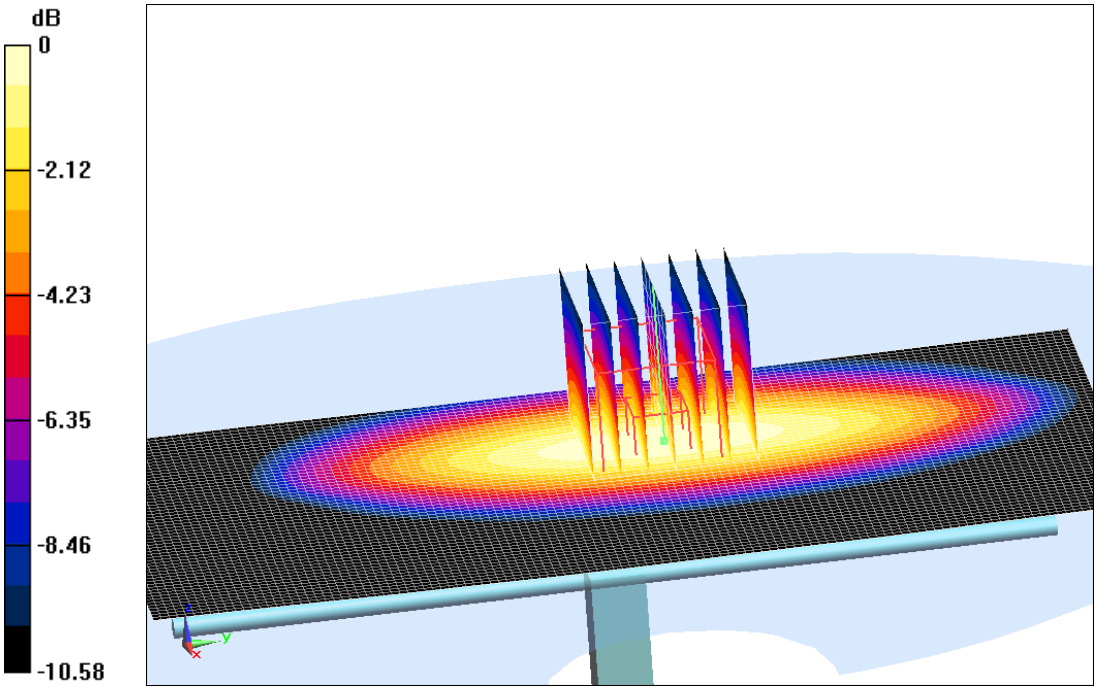
## 835MHz

Date: 2018-6-8
Electronics: DAE4 Sn786
Medium: Head 835 MHz
Medium parameters used: f = 835 MHz; $\sigma$ =0.886 S/m; $\varepsilon r$ = 41.954; $\rho$ = 1000 kg/$m^3$
Ambient Temperature: 22.9°C Liquid Temperature: 22.5°C
Communication System: CW Frequency: 835 MHz Duty Cycle: 1:1
Probe: EX3DV4 – SN3633 ConvF (9.33, 9.33, 9.33);

**System Validation /Area Scan (81x161x1):** Interpolated grid: dx=1.000 mm, dy=1.000 mm
Reference Value = 56.294 V/m; Power Drift = -0.08 dB
**SAR(1 g) = 2.27 W/kg; SAR(10 g) = 1.51 W/kg**
Maximum value of SAR (interpolated) = 2.52 W/kg

**System Validation /Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 56.294 V/m; Power Drift = -0.08 dB
Peak SAR (extrapolated) = 3.28 W/kg
**SAR(1 g) = 2.25 W/kg; SAR(10 g) = 1.49 W/kg**
Maximum value of SAR (measured) = 2.49 W/kg




0 dB = 2.49 W/kg = 3.96 dB W/kg

**Fig.B.3. Validation 835MHz 250mW**

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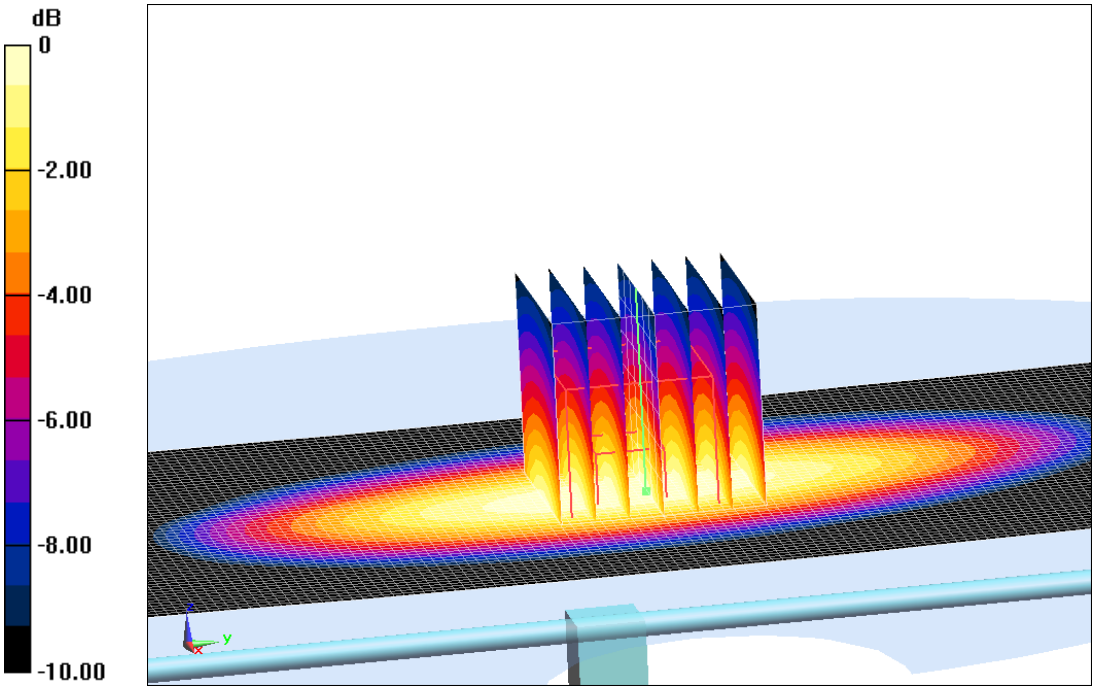
## 835MHz

Date: 2018-6-8
Electronics: DAE4 Sn786
Medium: Body 835 MHz
Medium parameters used: f = 835 MHz; $\sigma$ = 0.993 S/m; $\varepsilon_r$ = 53.838; $\rho$ = 1000 kg/m$^3$
Ambient Temperature: 22.9°C Liquid Temperature: 22.5°C
Communication System: CW Frequency: 835 MHz Duty Cycle: 1:1
Probe: EX3DV4 – SN3633 ConvF (9.69, 9.69, 9.69);

**System Validation /Area Scan (81x171x1):** Interpolated grid: dx=1.000 mm, dy=1.000 mm
Reference Value = 58.466 V/m; Power Drift = 0.04 dB
**SAR(1 g) = 2.40 W/kg; SAR(10 g) = 1.55 W/kg**
Maximum value of SAR (interpolated) = 2.57 W/kg

**System Validation /Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 58.466 V/m; Power Drift = 0.04 dB
Peak SAR (extrapolated) = 3.65 W/kg
**SAR(1 g) = 2.42 W/kg; SAR(10 g) = 1.57 W/kg**
Maximum value of SAR (measured) = 2.60 W/kg




0 dB = 2.60 W/kg = 4.15 dB W/kg

**Fig.B.4. Validation 835MHz 250mW**

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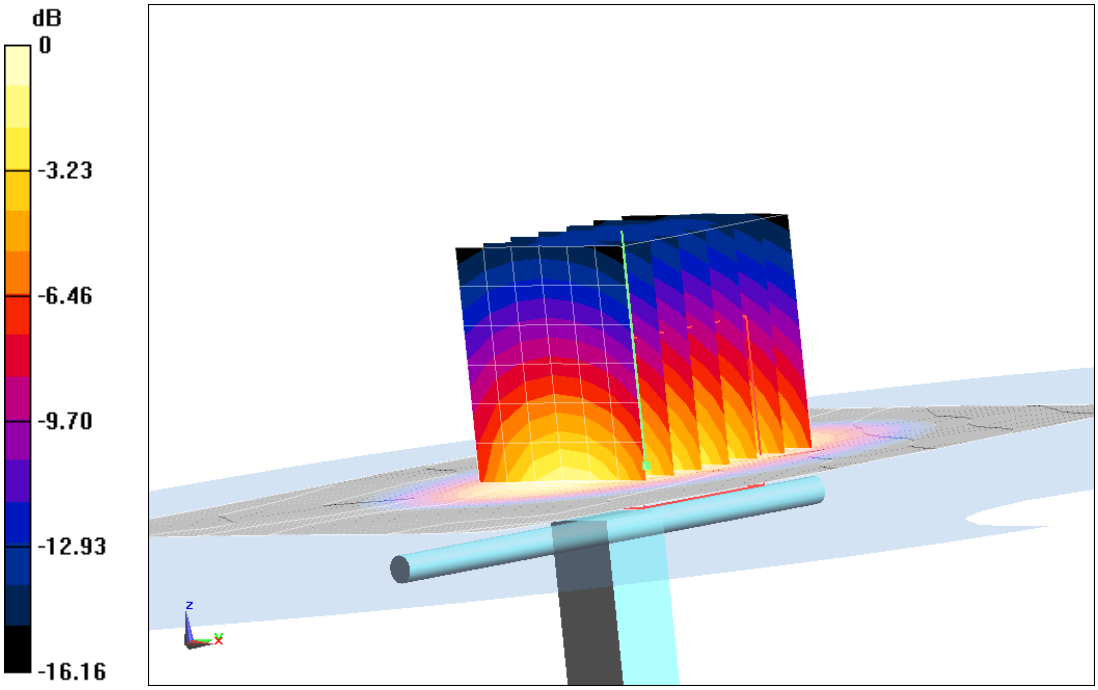
## 1800MHz

Date: 2018-6-5
Electronics: DAE4 Sn786
Medium: Head 1800 MHz
Medium parameters used: f = 1800 MHz; $\sigma$ = 1.433 S/m; $\varepsilon_r$ = 38.863; $\rho$ = 1000 kg/m$^3$
Ambient Temperature: 22.0°C Liquid Temperature: 21.5°C
Communication System: CW Frequency: 1800 MHz Duty Cycle: 1:1
Probe: EX3DV4 – SN3633 ConvF (8.12, 8.12, 8.12);

**System Validation/Area Scan (61x121x1):** Interpolated grid: dx=1.000 mm, dy=1.000 mm
Reference Value = 80.811 V/m; Power Drift = 0.12 dB
**SAR(1 g) = 9.85 W/kg; SAR(10 g) = 5.18 W/kg**
Maximum value of SAR (interpolated) = 12.4 W/kg

**System Validation/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 80.811 V/m; Power Drift = 0.12 dB
Peak SAR (extrapolated) = 19.6 W/kg
**SAR(1 g) = 9.97 W/kg; SAR(10 g) = 5.25 W/kg**
Maximum value of SAR (measured) = 12.8 W/kg




0 dB = 12.8 W/kg = 11.07 dB W/kg

**Fig.B.5. Validation 1800MHz 250mW**

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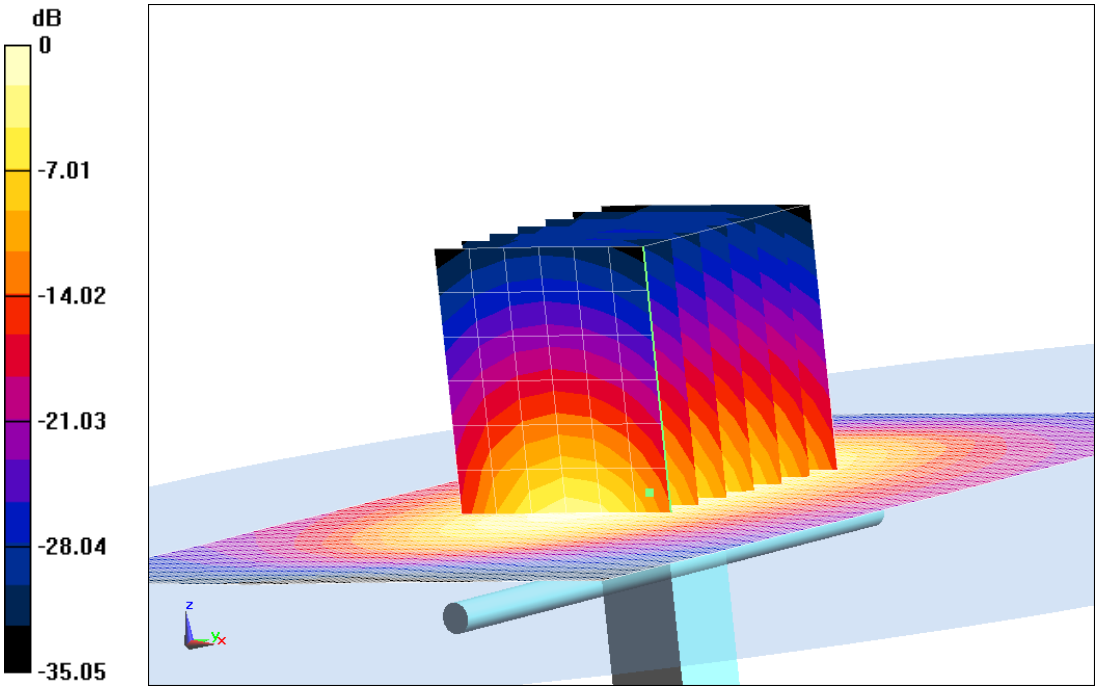
## 1800MHz

Date: 2018-6-5
Electronics: DAE4 Sn786
Medium: Body 1800 MHz
Medium parameters used: f = 1800 MHz; $\sigma$ = 1.498 S/m; $\varepsilon_r$ = 54.072; $\rho$ = 1000 kg/m$^3$
Ambient Temperature: 22.0°C Liquid Temperature: 21.5°C
Communication System: CW Frequency: 1800 MHz Duty Cycle: 1:1
Probe: EX3DV4 – SN3633 ConvF (8.05, 8.05, 8.05);

**System Validation/Area Scan (61x121x1):** Interpolated grid: dx=1.000 mm, dy=1.000 mm
Reference Value = 77.628 V/m; Power Drift = -0.03 dB
**SAR(1 g) = 9.58 W/kg; SAR(10 g) = 5.19 W/kg**
Maximum value of SAR (interpolated) = 11.7 W/kg

**System Validation/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 77.628 V/m; Power Drift = -0.03 dB
Peak SAR (extrapolated) = 18.4 W/kg
**SAR(1 g) = 9.52 W/kg; SAR(10 g) = 5.15 W/kg**
Maximum value of SAR (measured) = 11.4 W/kg




0 dB = 11.4 W/kg = 10.57 dB W/kg

**Fig.B.6. Validation 1800MHz 250mW**

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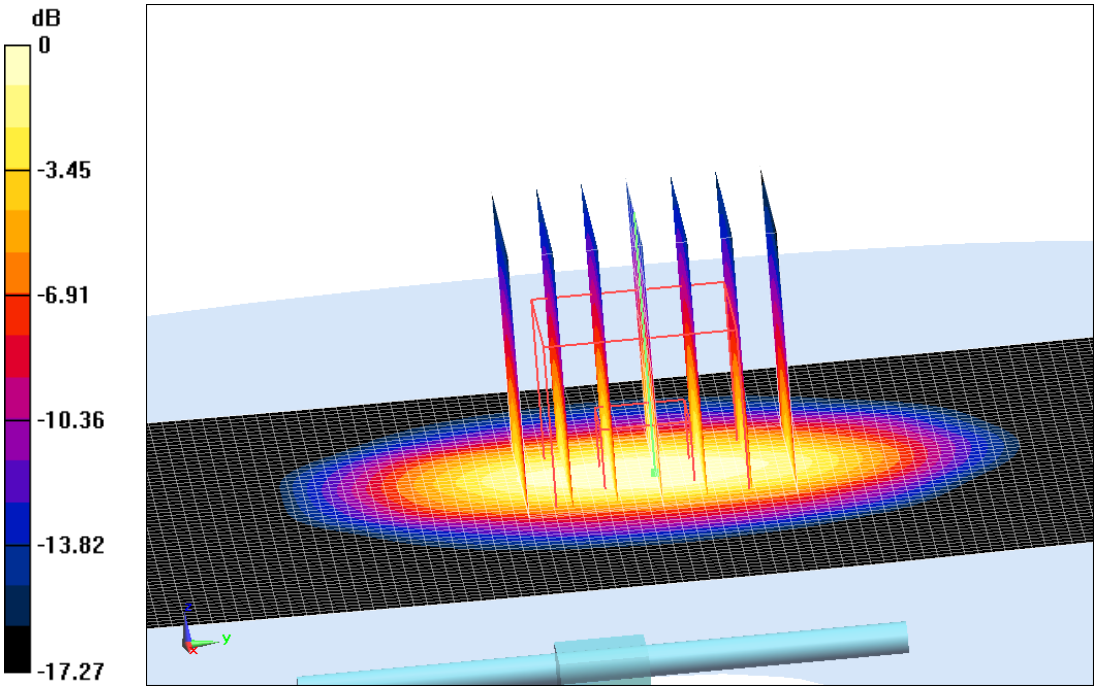
## 1900MHz

Date: 2018-5-25
Electronics: DAE4 Sn786
Medium: Head 1900 MHz
Medium parameters used: f = 1900 MHz; $\sigma$ = 1.412S/m; $\varepsilon_r$ = 39.554; $\rho$ = 1000 kg/m$^3$
Ambient Temperature: 22.9$^o$C  Liquid Temperature: 22.5$^o$C
Communication System: CW Frequency: 1900 MHz Duty Cycle: 1:1
Probe: EX3DV4 – SN3633 ConvF (7.81, 7.81, 7.81);

**System Validation /Area Scan (81x121x1):** Interpolated grid: dx=1.000 mm, dy=1.000 mm
Reference Value = 92.823 V/m; Power Drift = -0.06 dB
**SAR(1 g) = 10.5 W/kg; SAR(10 g) = 5.35 W/kg**
Maximum value of SAR (interpolated) = 13.7 W/kg

**System Validation /Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 92.823 V/m; Power Drift = -0.06 dB
Peak SAR (extrapolated) = 20.7 W/kg
**SAR(1 g) = 10.4 W/kg; SAR(10 g) = 5.31 W/kg**
Maximum value of SAR (measured) = 13.4 W/kg




0 dB = 13.4 W/kg = 11.27 dB W/kg

**Fig.B.7. Validation 1900MHz 250mW**

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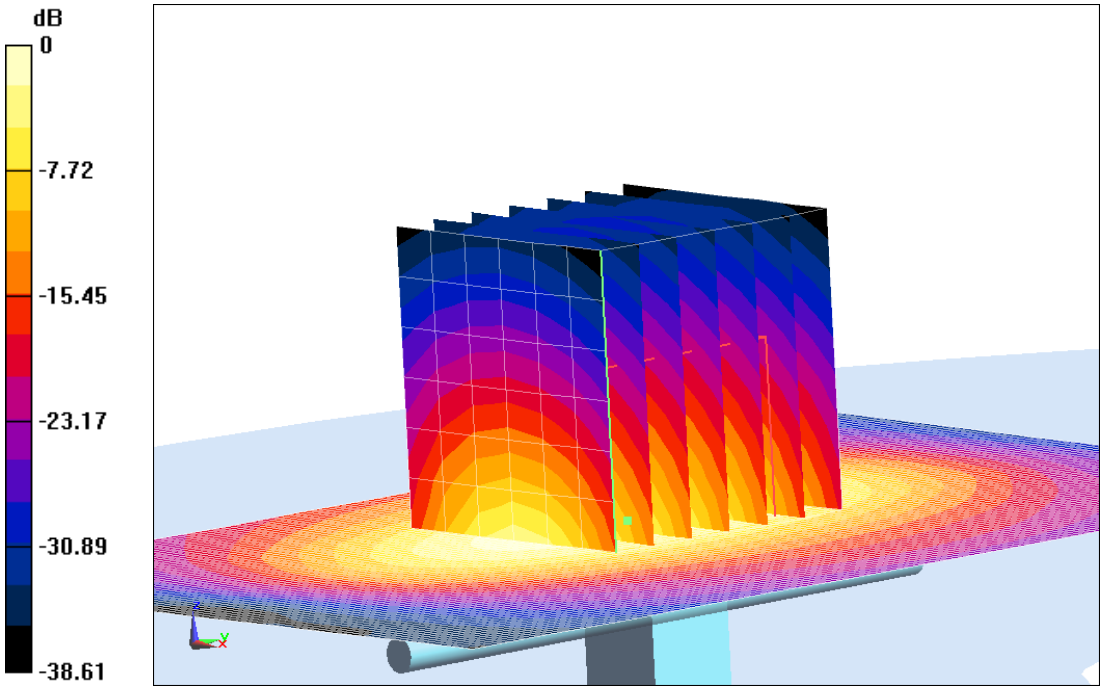
## 1900MHz

Date: 2018-5-25
Electronics: DAE4 Sn786
Medium: Body 1900 MHz
Medium parameters used: f = 1900 MHz; $\sigma$ = 1.566 S/m; $\varepsilon_r$ = 52.778; $\rho$ = 1000 kg/m$^3$
Ambient Temperature: 22.9°C Liquid Temperature: 22.5°C
Communication System: CW Frequency: 1900 MHz Duty Cycle: 1:1
Probe: EX3DV4 – SN3633 ConvF (7.75, 7.75, 7.75);

**System validation /Area Scan (81x121x1):** Interpolated grid: dx=1.000 mm, dy=1.000 mm
Reference Value = 87.456 V/m; Power Drift = 0.10 dB
**SAR(1 g) = 10.4 W/kg; SAR(10 g) = 5.39 W/kg**
Maximum value of SAR (interpolated) = 13.4 W/kg

**System validation /Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 87.456 V/m; Power Drift = 0.10 dB
Peak SAR (extrapolated) = 21.3 W/kg
**SAR(1 g) = 10.6 W/kg; SAR(10 g) = 5.44 W/kg**
Maximum value of SAR (measured) = 13.8 W/kg




0 dB = 13.8 W/kg = 11.40 dB W/kg

**Fig.B.8. Validation 1900MHz 250mW**

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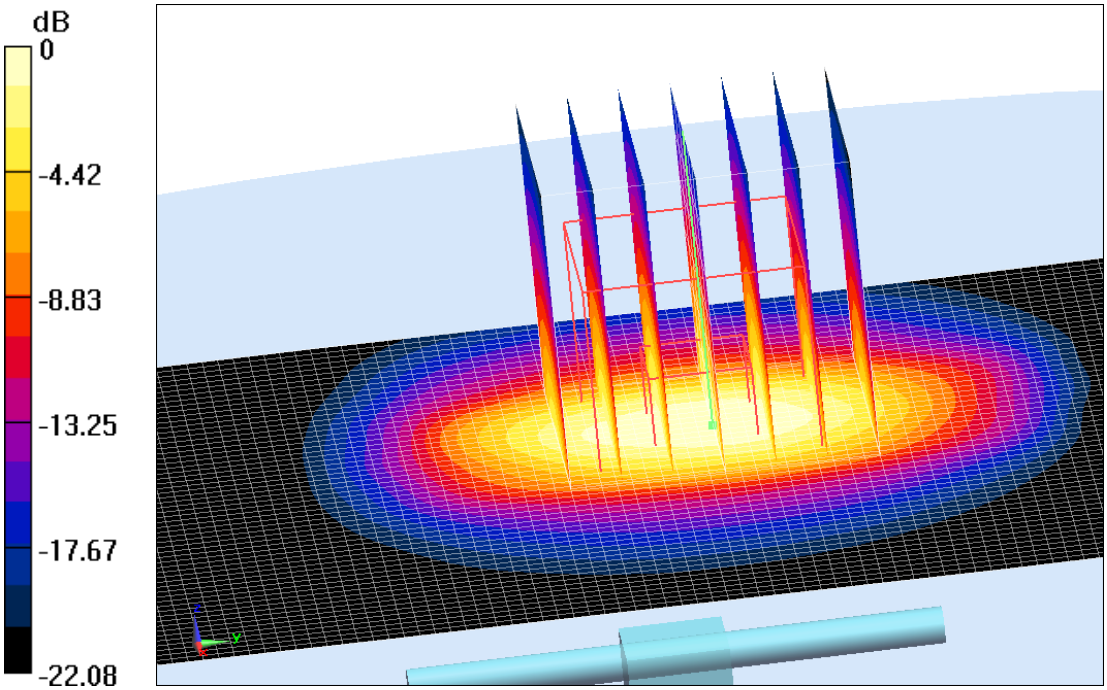
## 2450MHz

Date: 2018-7-8
Electronics: DAE4 Sn786
Medium: Head 2450 MHz
Medium parameters used: f = 2450 MHz; $\sigma$ = 1.855 S/m; $\varepsilon_r$ = 38.461; $\rho$ = 1000 kg/m$^3$
Ambient Temperature: 22.0°C Liquid Temperature: 21.6°C
Communication System: CW Frequency: 2450 MHz Duty Cycle: 1:1
Probe: EX3DV4 – SN3633 ConvF (7.42, 7.42, 7.42);

**System Validation /Area Scan (61x81x1):** Interpolated grid: dx=1.000 mm, dy=1.000 mm
Reference Value = 90.273 V/m; Power Drift = 0.05 dB
**SAR(1 g) = 13.5 W/kg; SAR(10 g) = 6.14 W/kg**
Maximum value of SAR (interpolated) = 15.3 W/kg

**System Validation /Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 90.273 V/m; Power Drift = 0.05 dB
Peak SAR (extrapolated) = 25.2 W/kg
**SAR(1 g) = 13.7 W/kg; SAR(10 g) = 6.19 W/kg**
Maximum value of SAR (measured) = 15.5 W/kg




0 dB = 15.5 W/kg = 11.90 dB W/kg

**Fig.B.9. Validation 2450MHz 250mW**

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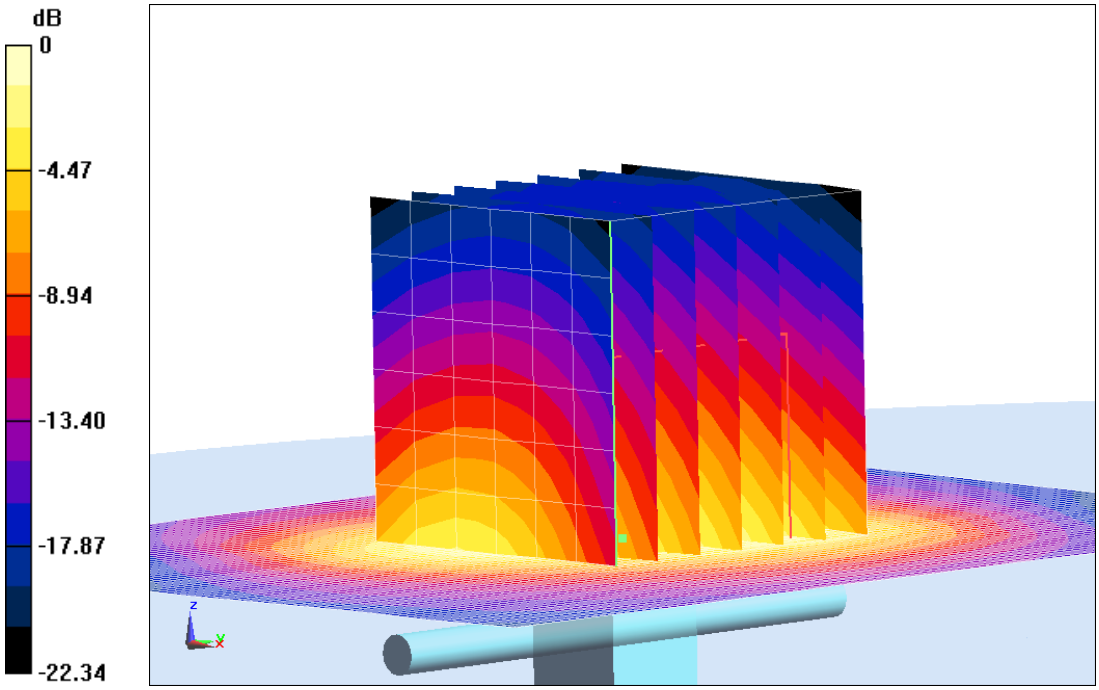
## 2450MHz

Date: 2018-7-8
Electronics: DAE4 Sn786
Medium: Body 2450 MHz
Medium parameters used: f = 2450 MHz; $\sigma$ = 1.919 S/m; $\varepsilon_r$ = 53.793; $\rho$ = 1000 kg/m$^3$
Ambient Temperature: 22.0°C Liquid Temperature: 21.6°C
Communication System: CW Frequency: 2450 MHz Duty Cycle: 1:1
Probe: EX3DV4 – SN3633 ConvF (7.47, 7.47, 7.47);

**System Validation/Area Scan (81x101x1):** Interpolated grid: dx=1.000 mm, dy=1.000 mm
Reference Value = 86.494 V/m; Power Drift = -0.13 dB
**SAR(1 g) = 12.6 W/kg; SAR(10 g) = 6.02 W/kg**
Maximum value of SAR (interpolated) = 14.2 W/kg

**System Validation/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 86.494 V/m; Power Drift = -0.13 dB
Peak SAR (extrapolated) = 22.8 W/kg
**SAR(1 g) = 12.5 W/kg; SAR(10 g) = 5.95 W/kg**
Maximum value of SAR (measured) = 13.9 W/kg




0 dB = 13.9 W/kg = 11.43 dB W/kg

**Fig.B.10. Validation 2450MHz 250mW**

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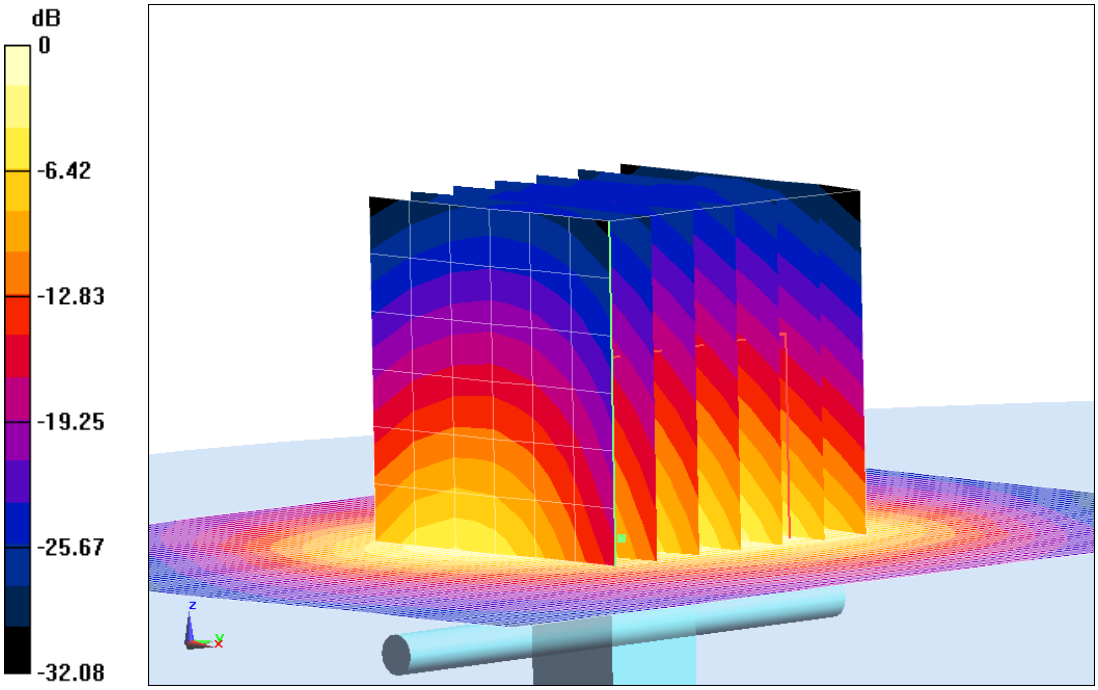
## 2550MHz

Date: 2018-5-27
Electronics: DAE4 Sn786
Medium: Head 2550 MHz
Medium parameters used: f = 2550 MHz; $\sigma$ = 1.962 S/m; $\varepsilon_r$ = 38.252; $\rho$ = 1000 kg/m$^3$
Ambient Temperature: 22.0°C Liquid Temperature: 21.6°C
Communication System: CW Frequency: 2550 MHz Duty Cycle: 1:1
Probe: EX3DV4 – SN3633 ConvF (7.28, 7.28, 7.28);

**System Validation/Area Scan (81x101x1):** Interpolated grid: dx=1.000 mm, dy=1.000 mm
Reference Value = 93.582 V/m; Power Drift = -0.09 dB
**SAR(1 g) = 15.0 W/kg; SAR(10 g) = 6.66 W/kg**
Maximum value of SAR (interpolated) = 16.8 W/kg

**System Validation/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 93.582 V/m; Power Drift = -0.09 dB
Peak SAR (extrapolated) = 29.3 W/kg
**SAR(1 g) = 14.8 W/kg; SAR(10 g) = 6.62 W/kg**
Maximum value of SAR (measured) = 16.4 W/kg




0 dB = 16.4 W/kg = 12.15 dB W/kg

**Fig.B.11. Validation 2550MHz 250mW**

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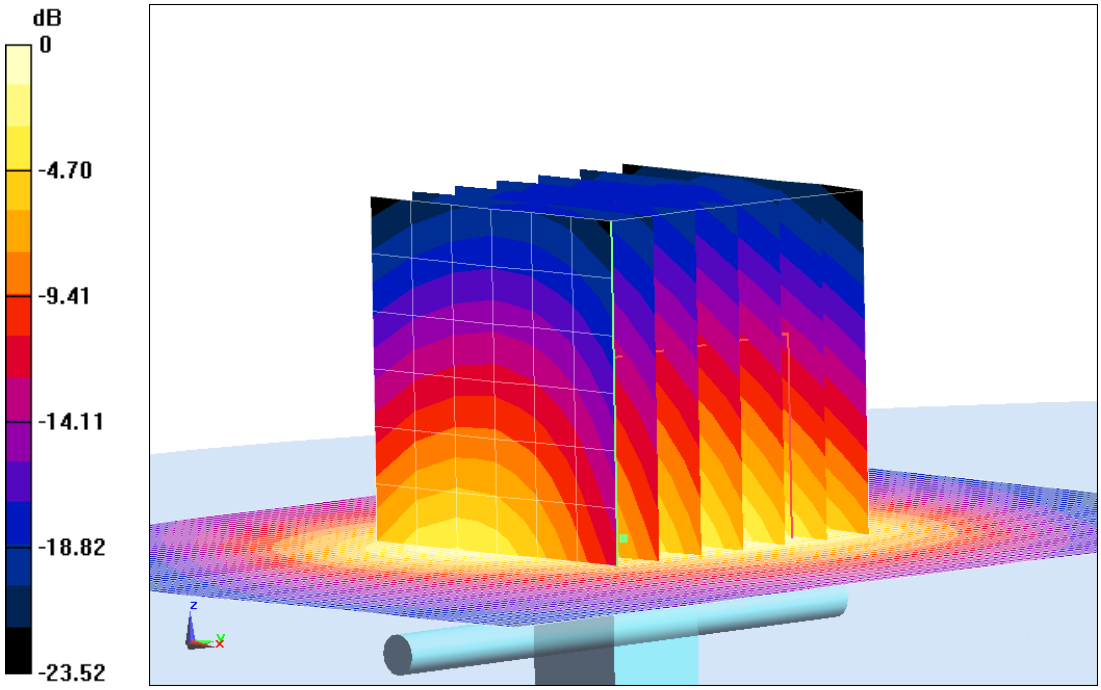
## 2550MHz

Date: 2018-5-27
Electronics: DAE4 Sn786
Medium: Body 2550 MHz
Medium parameters used: f = 2550 MHz; $\sigma$ = 2.075 S/m; $\varepsilon_r$ = 53.34; $\rho$ = 1000 kg/m$^3$
Ambient Temperature: 22.0°C Liquid Temperature: 21.6°C
Communication System: CW Frequency: 2550 MHz Duty Cycle: 1:1
Probe: EX3DV4 – SN3633 ConvF (7.31, 7.31, 7.31);

**System Validation/Area Scan (81x101x1):** Interpolated grid: dx=1.000 mm, dy=1.000 mm
Reference Value = 86.416 V/m; Power Drift = -0.12 dB
**SAR(1 g) = 13.4 W/kg; SAR(10 g) = 6.22 W/kg**
Maximum value of SAR (interpolated) = 15.2 W/kg

**System Validation/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 86.416 V/m; Power Drift = -0.12 dB
Peak SAR (extrapolated) = 26.7 W/kg
**SAR(1 g) = 13.2 W/kg; SAR(10 g) = 6.14 W/kg**
Maximum value of SAR (measured) = 14.8 W/kg




0 dB = 14.8 W/kg = 11.70 dB W/kg

**Fig.B.12. Validation 2550MHz 250mW**

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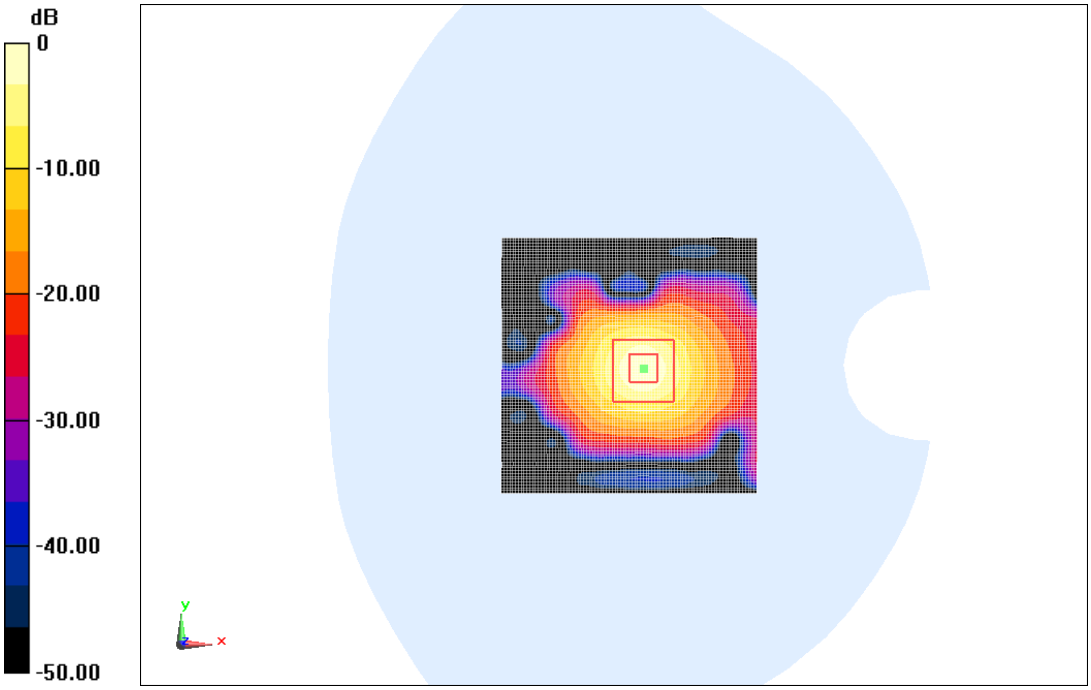
## 5300MHz

Date: 2018-7-11
Electronics: DAE4 Sn786
Medium: Head 5300 MHz
Medium parameters used: f = 5300 MHz; $\sigma$ = 4.858 S/m; $\varepsilon_r$ = 35.164; $\rho$ = 1000 kg/m$^3$
Ambient Temperature: 23.0$^o$C Liquid Temperature: 22.5$^o$C
Communication System: CW Frequency: 5300 MHz Duty Cycle: 1:1
Probe: EX3DV4 - SN3633 ConvF (5.61, 5.61, 5.61);

**System Validation /Area Scan (91x91x1):** Interpolated grid: dx=1.000 mm, dy=1.000 mm
Reference Value = 58.634 V/m; Power Drift = 0.07 dB
**SAR(1 g) = 8.49 W/kg; SAR(10 g) = 2.38 W/kg**
Maximum value of SAR (interpolated) =10.4 W/kg

**System Validation/Zoom Scan (8x8x8)/Cube0:** Measurement grid: dx=4mm, dy=4mm, dz=4mm
Reference Value = 58.634 V/m; Power Drift = 0.07 dB
Peak SAR (extrapolated) = 31.2 W/kg
**SAR(1 g) = 8.55 W/kg; SAR(10 g) = 2.42 W/kg**
Maximum value of SAR (measured) =10.6 W/kg




0 dB = 10.6 W/kg = 10.25 dB W/kg

**Fig.B.13. validation 5300MHz 100mW**

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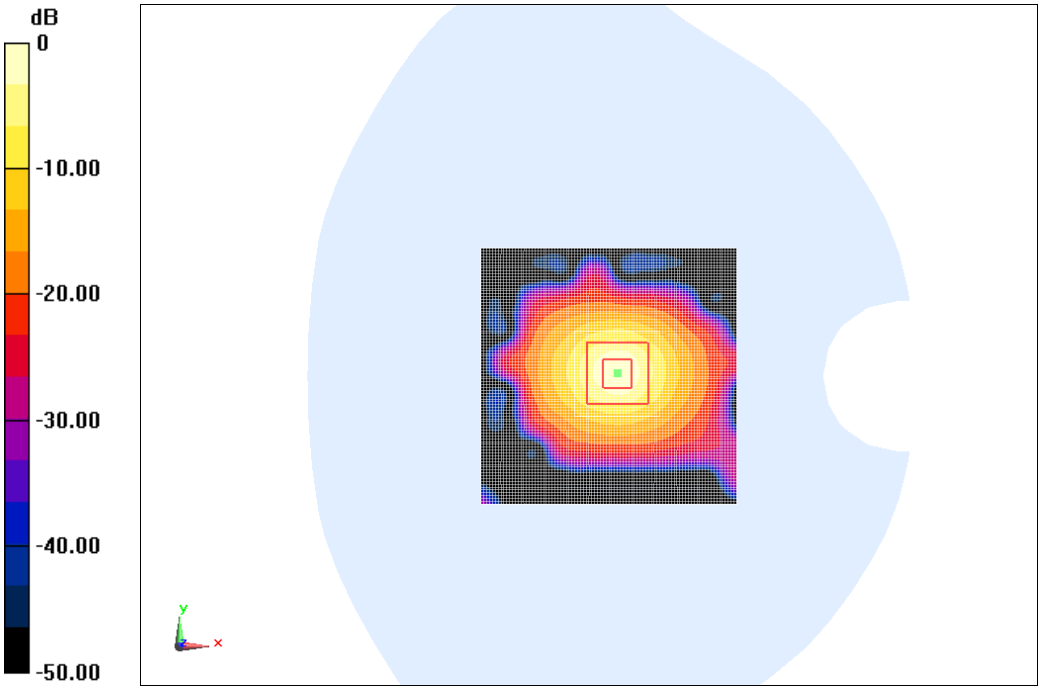
## 5300MHz

Date: 2018-7-11
Electronics: DAE4 Sn786
Medium: Body 5300 MHz
Medium parameters used: f = 5300 MHz; $\sigma$ = 5.344 S/m; $\varepsilon_r$ = 50.366; $\rho$ = 1000 kg/m$^3$
Ambient Temperature: 23.0°C Liquid Temperature: 22.5°C
Communication System: CW Frequency: 5300 MHz Duty Cycle: 1:1
Probe: EX3DV4 - SN3633 ConvF (5.15, 5.15, 5.15);

**System Validation /Area Scan (91x91x1):** Interpolated grid: dx=1.000 mm, dy=1.000 mm
Reference Value = 56.795 V/m; Power Drift = -0.10 dB
**SAR(1 g) = 7.48 W/kg; SAR(10 g) = 2.15 W/kg**
Maximum value of SAR (interpolated) = 9.87 W/kg

**System Validation/Zoom Scan (8x8x8)/Cube0:** Measurement grid: dx=4mm, dy=4mm, dz=4mm
Reference Value = 56.795 V/m; Power Drift = -0.10 dB
Peak SAR (extrapolated) = 27.4 W/kg
**SAR(1 g) = 7.44 W/kg; SAR(10 g) = 2.12 W/kg**
Maximum value of SAR (measured) = 9.82 W/kg




0 dB = 9.82 W/kg = 9.92 dB W/kg

**Fig.B.14. validation 5300MHz 100mW**

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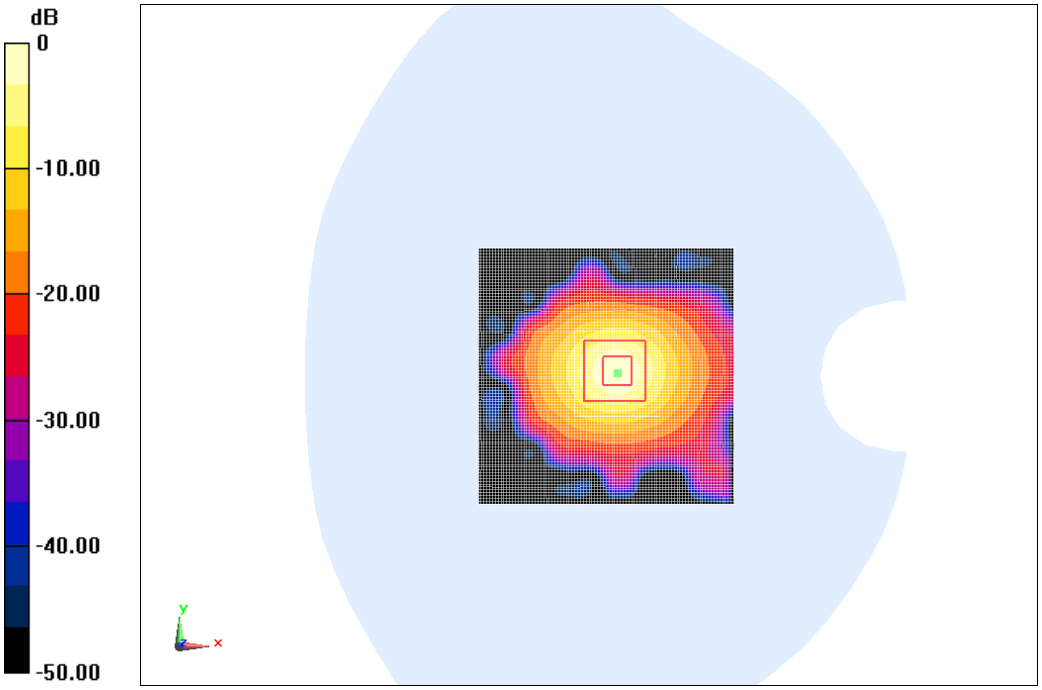
## 5600MHz

Date: 2018-7-11
Electronics: DAE4 Sn786
Medium: Head 5600 MHz
Medium parameters used: f = 5600 MHz; $\sigma$ = 5.190 S/m; $\varepsilon_r$ =34.634; $\rho$ = 1000 kg/m$^3$
Ambient Temperature: 23.0°C Liquid Temperature: 22.5°C
Communication System: CW Frequency: 5600 MHz Duty Cycle: 1:1
Probe: EX3DV4 - SN3633 ConvF (4.86, 4.86, 4.86);

**System Validation /Area Scan (91x91x1):** Interpolated grid: dx=1.000 mm, dy=1.000 mm
Reference Value = 62.225 V/m; Power Drift = 0.02 dB
**SAR(1 g) = 8.56 W/kg; SAR(10 g) = 2.38 W/kg**
Maximum value of SAR (interpolated) =10.1 W/kg

**System Validation/Zoom Scan (8x8x8)/Cube0:** Measurement grid: dx=4mm, dy=4mm, dz=4mm
Reference Value = 62.225 V/m; Power Drift = 0.02 dB
Peak SAR (extrapolated) = 32.5 W/kg
**SAR(1 g) = 8.64 W/kg; SAR(10 g) = 2.44 W/kg**
Maximum value of SAR (measured) = 10.3 W/kg




0 dB = 10.3 W/kg = 10.13 dB W/kg

**Fig.B.15. validation 5600MHz 100mW**

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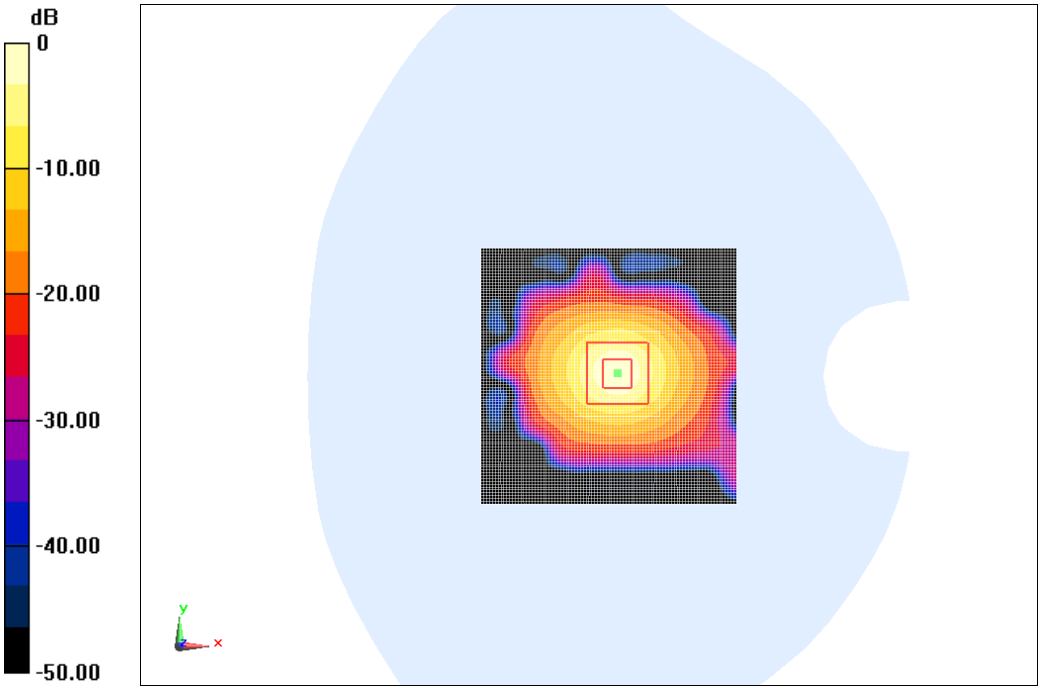
## 5600MHz

Date: 2018-7-11
Electronics: DAE4 Sn786
Medium: Body 5600 MHz
Medium parameters used: f = 5600 MHz; $\sigma$ = 5.686 S/m; $\varepsilon_r$ = 50.121; $\rho$ = 1000 kg/m$^3$
Ambient Temperature: 23.0°C Liquid Temperature: 22.5°C
Communication System: CW Frequency: 5600 MHz Duty Cycle: 1:1
Probe: EX3DV4 - SN3633 ConvF (4.33, 4.33, 4.33);

**System Validation /Area Scan (91x91x1):** Interpolated grid: dx=1.000 mm, dy=1.000 mm
Reference Value = 60.319 V/m; Power Drift = -0.04 dB
**SAR(1 g) = 7.70 W/kg; SAR(10 g) = 2.18 W/kg**
Maximum value of SAR (interpolated) =9.82 W/kg

**System Validation/Zoom Scan (8x8x8)/Cube0:** Measurement grid: dx=4mm, dy=4mm, dz=4mm
Reference Value = 60.319 V/m; Power Drift = -0.04 dB
Peak SAR (extrapolated) = 27.9 W/kg
**SAR(1 g) = 7.62 W/kg; SAR(10 g) = 2.15 W/kg**
Maximum value of SAR (measured) = 9.79 W/kg




0 dB = 9.79 W/kg = 9.91 dB W/kg

**Fig.B.16. validation 5600MHz 100mW**

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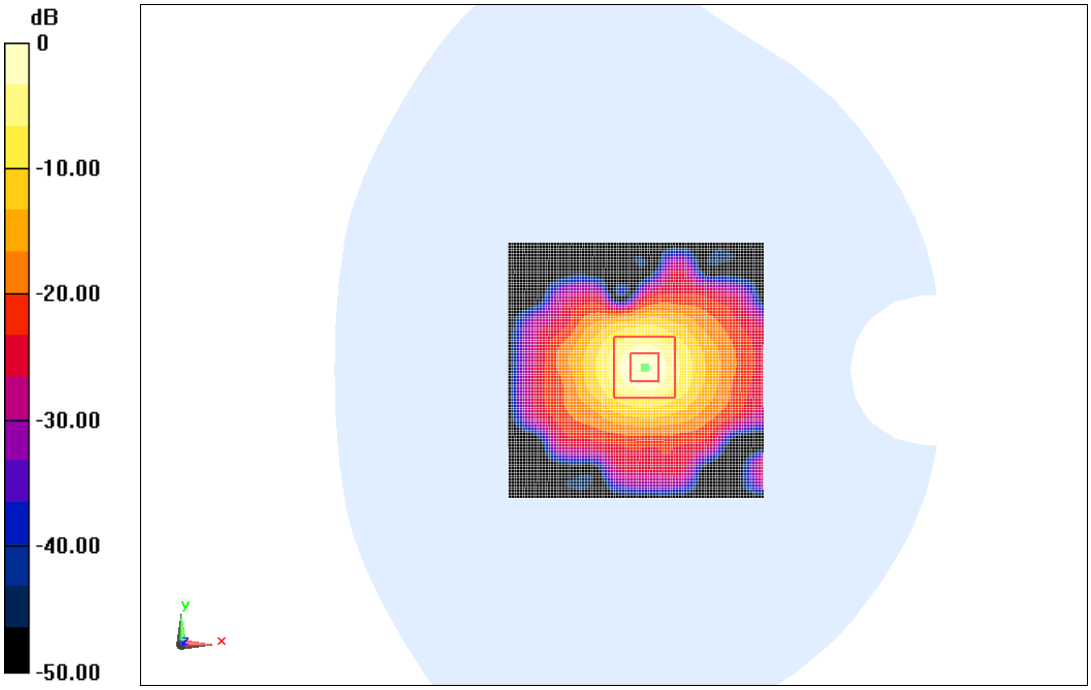
## 5800MHz

Date: 2018-7-11
Electronics: DAE4 Sn786
Medium: Head 5800 MHz
Medium parameters used: f = 5800 MHz; $\sigma$ = 5.385 S/m; $\varepsilon_r$ = 34.468; $\rho$ = 1000 kg/m$^3$
Ambient Temperature: 23.0°C Liquid Temperature: 22.5°C
Communication System: CW Frequency: 5800 MHz Duty Cycle: 1:1
Probe: EX3DV4 - SN3633 ConvF (4.81, 4.81, 4.81);

**System Validation/Area Scan (91x91x1):** Interpolated grid: dx=1.000 mm, dy=1.000 mm
Reference Value = 60.894 V/m; Power Drift = -0.10 dB
**SAR(1 g) = 8.22 W/kg; SAR(10 g) = 2.31 W/kg**
Maximum value of SAR (interpolated) =10.0 W/kg

**System Validation/Zoom Scan (8x8x8)/Cube0:** Measurement grid: dx=4mm, dy=4mm, dz=4mm
Reference Value = 60.894 V/m; Power Drift = -0.10 dB
Peak SAR (extrapolated) = 31.2 W/kg
**SAR(1 g) = 8.15 W/kg; SAR(10 g) = 2.27 W/kg**
Maximum value of SAR (measured) = 10.2 W/kg




0 dB = 10.2 W/kg = 10.09 dB W/kg

**Fig.B.17. Validation 5800MHz 100mW**

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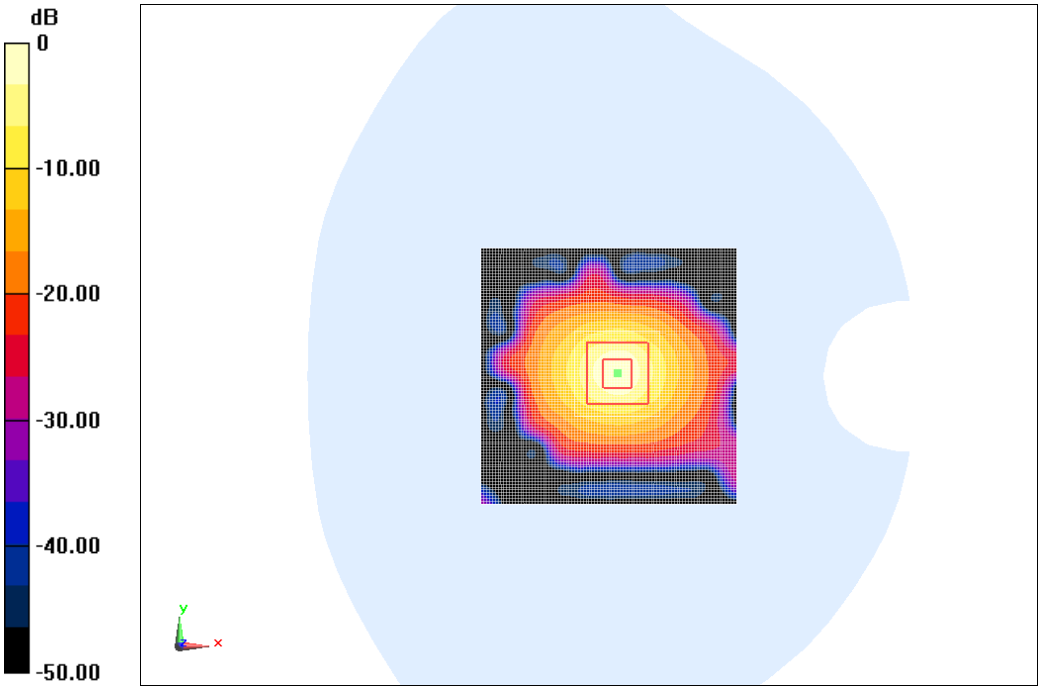
## 5800MHz

Date: 2018-7-11
Electronics: DAE4 Sn786
Medium: Body 5800 MHz
Medium parameters used: f = 5800 MHz; $\sigma$ = 6.139 S/m; $\varepsilon_r$ = 47.346; $\rho$ = 1000 kg/m$^3$
Ambient Temperature: 23.0°C Liquid Temperature: 22.5°C
Communication System: CW Frequency: 5800 MHz Duty Cycle: 1:1
Probe: EX3DV4 - SN3633 ConvF (4.48, 4.48, 4.48);

**System Validation/Area Scan (91x91x1):** Interpolated grid: dx=1.000 mm, dy=1.000 mm
Reference Value = 60.478 V/m; Power Drift = 0.11 dB
**SAR(1 g) =7.78 W/kg; SAR(10 g) = 2.12 W/kg**
Maximum value of SAR (interpolated) =9.89 W/kg

**System Validation/Zoom Scan (8x8x8)/Cube0:** Measurement grid: dx=4mm, dy=4mm, dz=4mm
Reference Value = 60.478 V/m; Power Drift = 0.11 dB
Peak SAR (extrapolated) = 29.7 W/kg
**SAR(1 g) = 7.88 W/kg; SAR(10 g) = 2.14 W/kg**
Maximum value of SAR (measured) = 9.95 W/kg




0 dB = 9.95 W/kg = 9.98 dB W/kg

**Fig.B.18. Validation 5800MHz 100mW**

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The SAR system verification must be required that the area scan estimated 1-g SAR is within 3% of the zoom scan 1-g SAR.

**Table B.1 Comparison between area scan and zoom scan for system verification**

| Band (MHz) | Position | Area scan (1g) | Zoom scan (1g) | Drift (%) |
|---|---|---|---|---|
| 750 | Head | 1.37 | 1.39 | 1.46 |
| 750 | Body | 1.40 | 1.42 | 1.43 |
| 835 | Head | 1.51 | 1.49 | -1.32 |
| 835 | Body | 1.55 | 1.57 | 1.29 |
| 1800 | Head | 5.18 | 5.25 | 1.35 |
| 1800 | Body | 5.19 | 5.15 | -0.77 |
| 1900 | Head | 5.35 | 5.31 | -0.75 |
| 1900 | Body | 5.39 | 5.44 | 0.93 |
| 2450 | Head | 6.14 | 6.19 | 0.81 |
| 2450 | Body | 6.02 | 5.95 | -1.16 |
| 2550 | Head | 6.66 | 6.62 | -0.60 |
| 2550 | Body | 6.22 | 6.14 | -1.29 |

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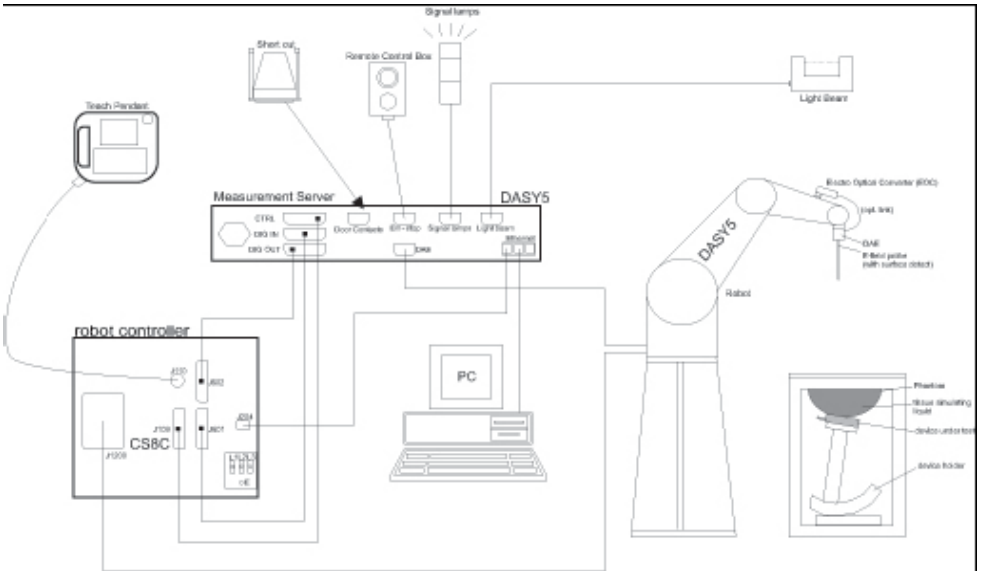
# ANNEX C SAR Measurement Setup

## C.1 Measurement Set-up

DASY5 system for performing compliance tests is illustrated above graphically. This system consists of the following items:




**Picture C.1 SAR Lab Test Measurement Set-up**

- A standard high precision 6-axis robot (Stäubli TX=RX family) with controller, teach pendant and software. An arm extension for accommodating the data acquisition electronics (DAE).
- An isotropic field probe optimized and calibrated for the targeted measurement.
- A data acquisition electronics (DAE) which performs the signal amplification, signal multiplexing, AD-conversion, offset measurements, mechanical surface detection, collision detection, etc. The unit is battery powered with standard or rechargeable batteries. The signal is optically transmitted to the EOC.
- The Electro-optical converter (EOC) performs the conversion from optical to electrical signals for the digital communication to the DAE. To use optical surface detection, a special version of the EOC is required. The EOC signal is transmitted to the measurement server.
- The function of the measurement server is to perform the time critical tasks such as signal filtering, control of the robot operation and fast movement interrupts.
- The Light Beam used is for probe alignment. This improves the (absolute) accuracy of the probe positioning.
- A computer running WinXP and the DASY5 software.
- Remote control and teach pendant as well as additional circuitry for robot safety such as
- warning lamps, etc.
- The phantom, the device holder and other accessories according to the targeted measurement.

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