Appendix 2-5: Measurement data (5180-5320 MHz, W52/53 band) / Head liquid

Step 2a: Change the channels

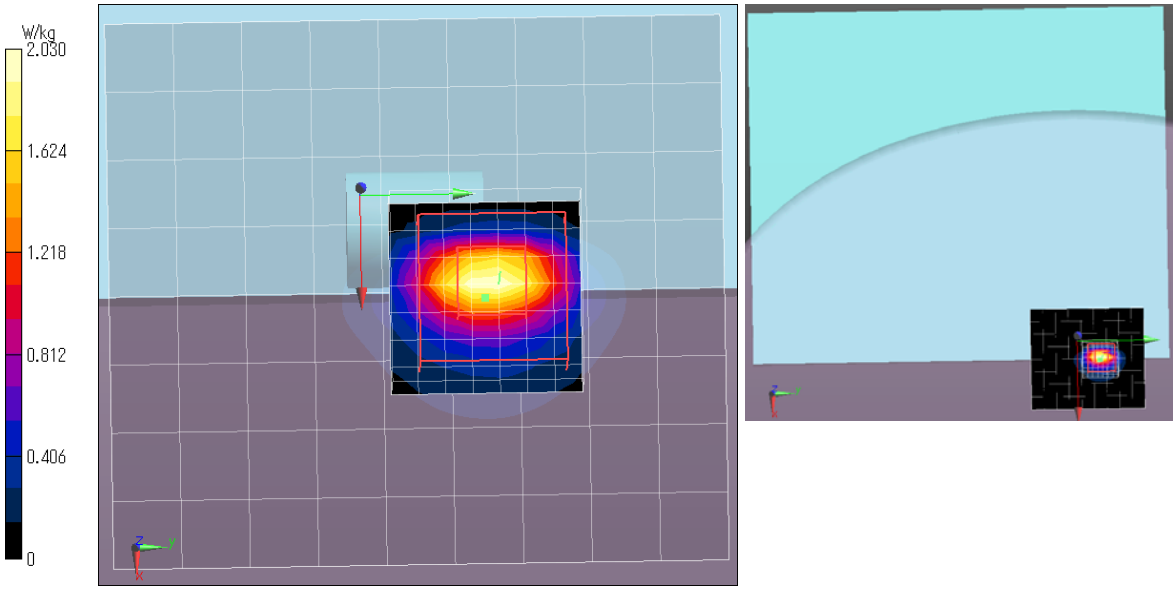
Step 2a-1: 5180MHz (36ch) / Main antenna, Front (Patient side) and touch, 11a (6Mbps)
->Worst reported SAR(1g) of the Main antenna in 5180-5320MHz (W52/53) band

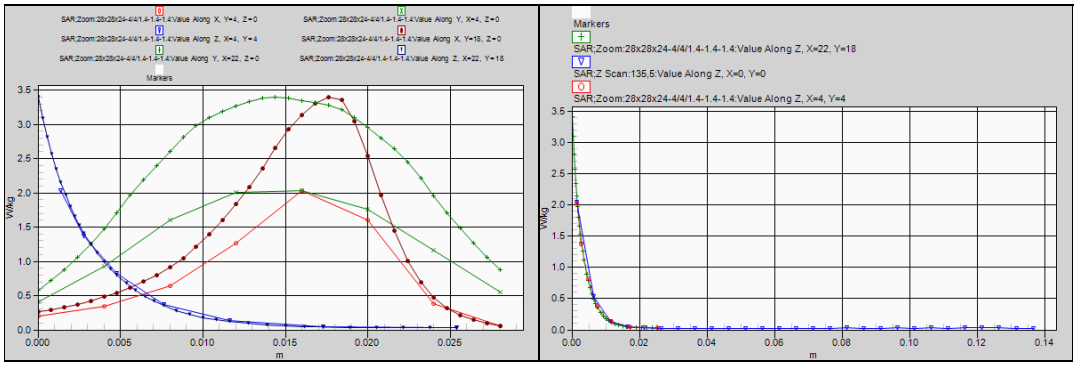
EUT: AeroDR SYSTEM; Type: AeroDR P-31; Serial: C1-35
Communication System: IEEE 802.11a(6Mbps, BPSK/OFDM); Frequency: 5180 MHz; Crest Factor: 1.0
Medium: HSL5800_head; Medium parameters used: f = 5180 MHz; σ = 4.745 S/m; ε_r = 36.06; ρ = 1000 kg/m^3
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration: -Probe: EX3DV4 - SN3679; ConvF(4.66, 4.66, 4.66); Calibrated: 2012/06/21;
-Sensor-Surface: 1.4mm (Mechanical Surface Detection), z = 1.0, 25.0, 136.0 -Electronics: DAE4 Sn626; Calibrated: 2013/03/11
-Phantom: ELI v4.0; Type: QDOVA001BA; Serial: 1059; Phantom section: Flat Section
-DASY52 52.8.2(969); SEMCAD X 14.6.6(6824)

portable,near-body/h52/53-2,ant=main,frt&d=0mm,11a(6m),h5180/
Area Scan:80x90,10 (9x10x1): Measurement grid: dx=10mm, dy=10mm; Maximum value of SAR (measured) = 1.76 W/kg
Area Scan:80x90,10 (81x91x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm; Maximum value of SAR (interpolated) = 2.26 W/kg
Z Scan:135,5 (1x1x28): Measurement grid: dx=20mm, dy=20mm, dz=5mm; Maximum value of SAR (measured) = 2.04 W/kg

Zoom:28x28x24-4/4/1.4-1.4-1.4 (8x8x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm;
Reference Value = 21.158 V/m; Power Drift = 0.06 dB, Maximum value of SAR (measured) = 2.03 W/kg
Peak SAR (extrapolated) = 3.404 mW/g
SAR(1 g) = 0.852 mW/g; SAR(10 g) = 0.253 mW/g





Remarks: *. Date tested: 2013/04/03; Tested by: Hiroshi Naka; Tested place:No.7 shielded room,
*.liquid depth: 145mm; Position: distance of EUT to phantom: 0mm (2mm to liquid); ambient: 24.5 ± 0.5deg.C. / 45 ± 5 %RH,
*.liquid temperature: 24.5(start)/24.4(end)/24.7(in check) deg.C.; *.White cubic: zoom scan area, Red cubic: big=SAR(10g)/small=SAR(1g)

Appendix 2-5: Measurement data (5180-5320 MHz, W52/53 band) / Head liquid (cont'd)
Step 2a: Change the channels (cont'd)

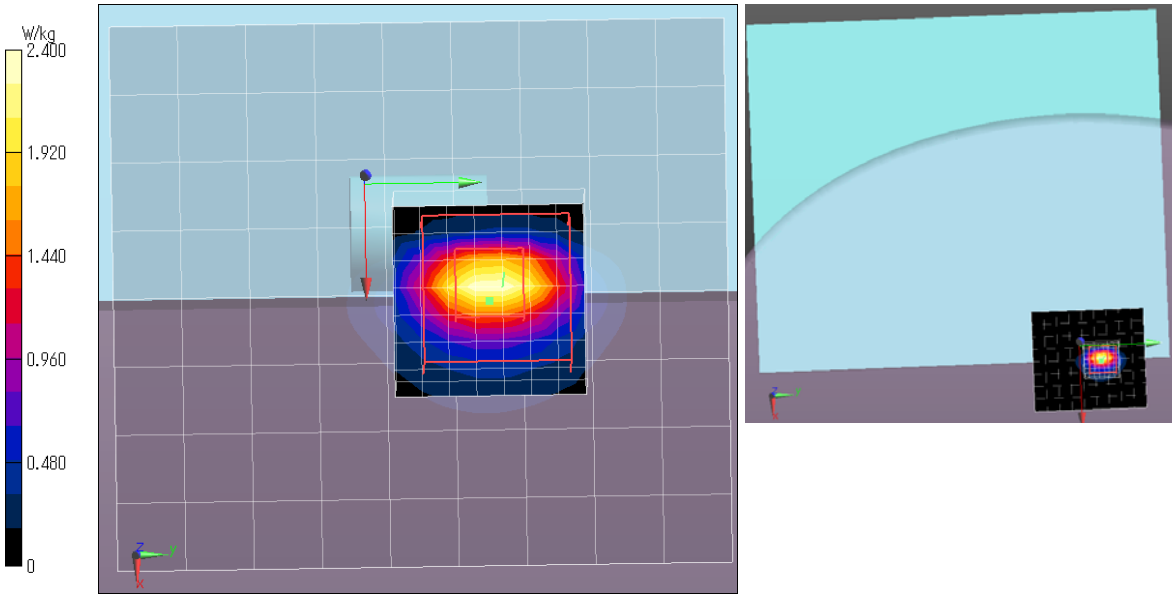
Step 2a-2: 5220MHz (44ch) / Main antenna, Front (Patient side) and touch, 11a (6Mbps)

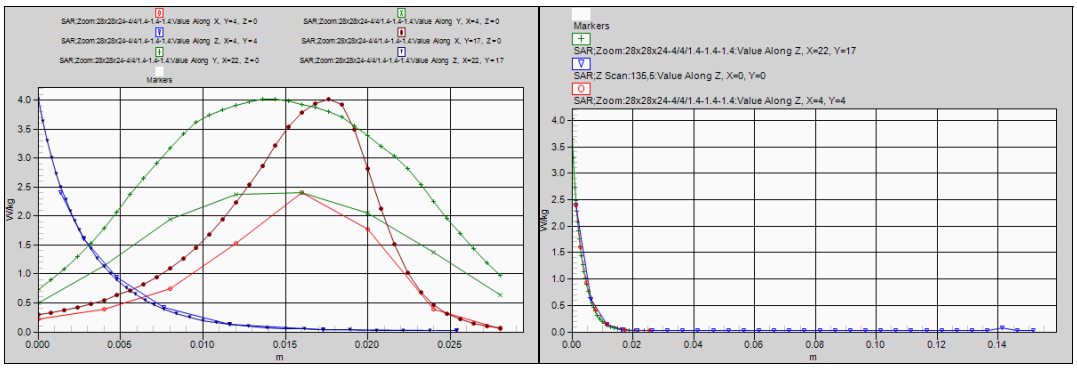
EUT: AeroDR SYSTEM; Type: AeroDR P-31; Serial: C1-35
Communication System: IEEE 802.11a(6Mbps, BPSK/OFDM); Frequency: 5220 MHz; Crest Factor: 1.0
Medium: HSL5800_head; Medium parameters used: f = 5220 MHz; σ = 4.685 S/m; ε_r = 36.33; ρ = 1000 kg/m^3
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration: -Probe: EX3DV4 - SN3679; ConvF(4.66, 4.66, 4.66); Calibrated: 2012/06/21;
-Sensor-Surface: 1.4mm (Mechanical Surface Detection), z = 1.0, 25.0, 151.0 -Electronics: DAE4 Sn626; Calibrated: 2013/03/11
-Phantom: ELI v4.0; Type: QDOVA001BA; Serial: 1059; Phantom section: Flat Section
-DASY52 52.8.2(969); SEMCAD X 14.6.6(6824)

portable,near-body/h52/53-5(re-#1),ant=main,frt&d=0mm,11a(6m),h5220/
Area Scan:80x90,10 (9x10x1): Measurement grid: dx=10mm, dy=10mm; Maximum value of SAR (measured) = 2.02 W/kg
Area Scan:80x90,10 (81x91x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm; Maximum value of SAR (interpolated) = 2.64 W/kg
Z Scan:135,5 (1x1x31): Measurement grid: dx=20mm, dy=20mm, dz=5mm; Maximum value of SAR (measured) = 2.40 W/kg

Zoom:28x28x24-4/4/1.4-1.4-1.4 (8x8x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm;
Reference Value = 23.219 V/m; Power Drift = 0.16 dB, Maximum value of SAR (measured) = 2.40 W/kg
Peak SAR (extrapolated) = 4.023 mW/g
SAR(1 g) = 0.989 mW/g (*. Measured maximum of Main antenna in W52/53 band)**; SAR(10 g) = 0.287 mW/g**





Remarks: *. Date tested: 2013/04/03; Tested by: Hiroshi Naka; Tested place:No.7 shielded room,
*.liquid depth: 145mm; Position: distance of EUT to phantom: 0mm (2mm to liquid); ambient: 24.5 ± 0.5deg.C. / 45 ± 5 %RH,
*.liquid temperature: 24.3(start)/24.3(end)/24.7(in check) deg.C.; *.White cubic: zoom scan area, Red cubic: big=SAR(10g)/small=SAR(1g)

Appendix 2-5: Measurement data (5180-5320 MHz, W52/53 band) / Head liquid (cont'd)
Step 2a: Change the channels (cont'd)

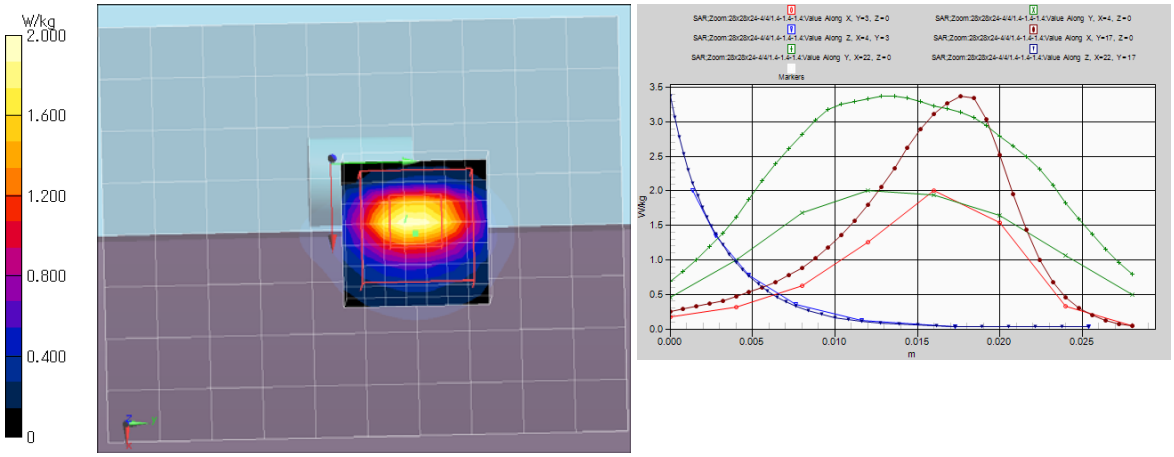
Step 2a-3: 5280MHz (56ch) / Main antenna, Front (Patient side) and touch, 11a (6Mbps)

EUT: AeroDR SYSTEM; Type: AeroDR P-31; Serial: C1-35
Communication System: IEEE 802.11a(6Mbps, BPSK/OFDM); Frequency: 5280 MHz; Crest Factor: 1.0
Medium: HSL5800_head; Medium parameters used: f = 5280 MHz; σ = 4.835 S/m; ε_r = 36.01; ρ = 1000 kg/m^3
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration: -Probe: EX3DV4 - SN3679; ConvF(4.63, 4.63, 4.63); Calibrated: 2012/06/21;
-Sensor-Surface: 1.4mm (Mechanical Surface Detection), z = 1.0, 25.0, 136.0 -Electronics: DAE4 Sn626; Calibrated: 2013/03/11
-Phantom: ELI v4.0; Type: QDOVA001BA; Serial: 1059; Phantom section: Flat Section
-DASY52 52.8.2(969); SEMCAD X 14.6.6(6824)

portable,near-body/h52/53-3,ant=main,frt&d=0mm,11a(6m),h5280/
Area Scan:80x100,10 (9x11x1): Measurement grid: dx=10mm, dy=10mm; Maximum value of SAR (measured) = 1.88 W/kg
Area Scan:80x100,10 (81x101x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm; Maximum value of SAR (interpolated) = 1.93 W/kg
Z Scan:135,5 (1x1x28): Measurement grid: dx=20mm, dy=20mm, dz=5mm; Maximum value of SAR (measured) = 2.02 W/kg

Zoom:28x28x24-4/4/1.4-1.4-1.4 (8x8x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm;
Reference Value = 20.693 V/m; Power Drift = 0.11 dB, Maximum value of SAR (measured) = 2.00 W/kg
Peak SAR (extrapolated) = 3.379 mW/g
SAR(1 g) = 0.824 mW/g; SAR(10 g) = 0.242 mW/g



Remarks: *. Date tested: 2013/04/03; Tested by: Hiroshi Naka; Tested place:No.7 shielded room,
*.liquid depth: 145mm; Position: distance of EUT to phantom: 0mm (2mm to liquid); ambient: 24.5 ± 0.5deg.C. / 45 ± 5 %RH,
*.liquid temperature: 24.4(start)/24.4(end)/24.7(in check) deg.C.; *.White cubic: zoom scan area, Red cubic: big=SAR(10g)/small=SAR(1g)

Appendix 2-5: Measurement data (5180-5320 MHz, W52/53 band) / Head liquid (cont'd)
Step 2a: Change the channels (cont'd)

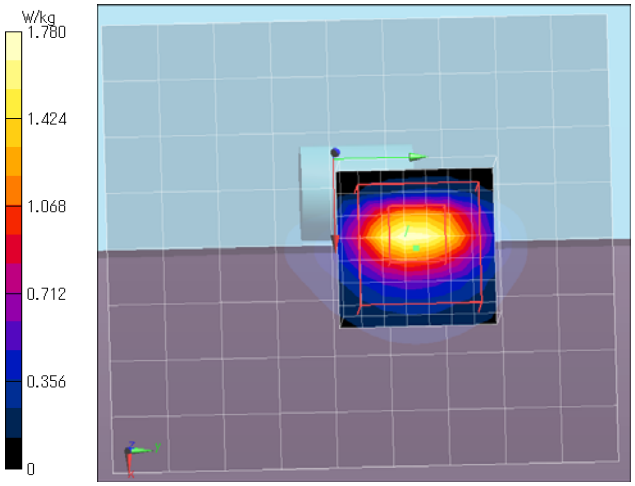
Step 2a-4: 5320MHz (64ch) / Main antenna, Front (Patient side) and touch, 11a (6Mbps)

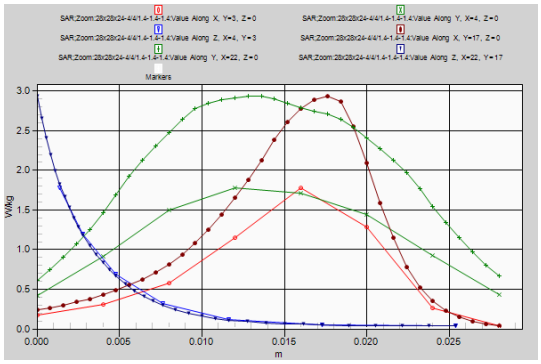
EUT: AeroDR SYSTEM; Type: AeroDR P-31; Serial: C1-35
Communication System: IEEE 802.11a(6Mbps, BPSK/OFDM); Frequency: 5320 MHz; Crest Factor: 1.0
Medium: HSL5800_head; Medium parameters used: f = 5320 MHz; σ = 4.856 S/m; ε_r = 35.94; ρ = 1000 kg/m^3
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration: -Probe: EX3DV4 - SN3679; ConvF(4.63, 4.63, 4.63); Calibrated: 2012/06/21;
-Sensor-Surface: 1.4mm (Mechanical Surface Detection), z = 1.0, 25.0, 136.0 -Electronics: DAE4 Sn626; Calibrated: 2013/03/11
-Phantom: ELI v4.0; Type: QDOVA001BA; Serial: 1059; Phantom section: Flat Section
-DASY52 52.8.2(969); SEMCAD X 14.6.6(6824)

portable,near-body/b52/53-4,ant=main,frt&d=0mm,11a(6m),h5320/
Area Scan:80x90,10 (9x10x1): Measurement grid: dx=10mm, dy=10mm; Maximum value of SAR (measured) = 1.54 W/kg
Area Scan:80x90,10 (81x91x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm; Maximum value of SAR (interpolated) = 2.00 W/kg
Z Scan:135,5 (1x1x28): Measurement grid: dx=20mm, dy=20mm, dz=5mm; Maximum value of SAR (measured) = 1.77 W/kg

Zoom:28x28x24-4/4/1.4-1.4-1.4 (8x8x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm;
Reference Value = 19.625 V/m; Power Drift = 0.04 dB, Maximum value of SAR (measured) = 1.78 W/kg
Peak SAR (extrapolated) = 2.940 mW/g
SAR(1 g) = 0.730 mW/g; SAR(10 g) = 0.225 mW/g





Remarks: *. Date tested: 2013/04/03; Tested by: Hiroshi Naka; Tested place:No.7 shielded room,
*.liquid depth: 145mm; Position: distance of EUT to phantom: 0mm (2mm to liquid); ambient: 24.5 ± 0.5deg.C. / 45 ± 5 %RH,
*.liquid temperature: 24.4(start)/24.3(end)/24.7(in check) deg.C.; *.White cubic: zoom scan area, Red cubic: big=SAR(10g)/small=SAR(1g)

Appendix 2-5: Measurement data (5180-5320 MHz, W52/53 band) / Head liquid (cont'd)
Step 2a: Change the channels (cont'd)

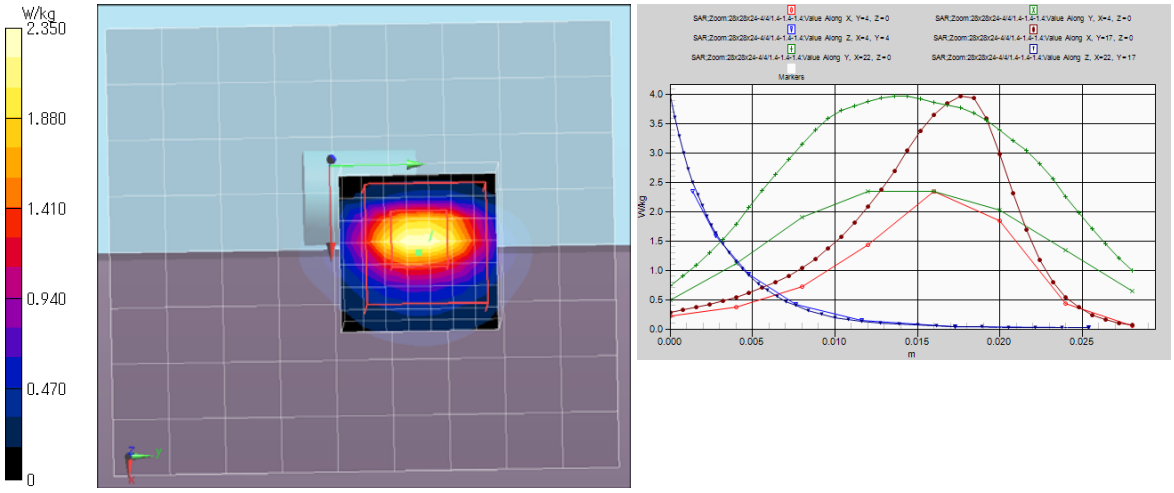
Step 2a-5: 5220MHz (44ch)-repeated / Main antenna, Front (Patient side) and touch, 11a (6Mbps)

EUT: AeroDR SYSTEM; Type: AeroDR P-31; Serial: C1-35
Communication System: IEEE 802.11a(6Mbps, BPSK/OFDM); Frequency: 5220 MHz; Crest Factor: 1.0
Medium: HSL5800_head; Medium parameters used: f = 5220 MHz; σ = 4.685 S/m; ε_r = 36.33; ρ = 1000 kg/m^3
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration: -Probe: EX3DV4 - SN3679; ConvF(4.66, 4.66, 4.66); Calibrated: 2012/06/21;
-Sensor-Surface: 1.4mm (Mechanical Surface Detection), z = 1.0, 25.0, 151.0 -Electronics: DAE4 Sn626; Calibrated: 2013/03/11
-Phantom: ELI v4.0; Type: QDOVA001BA; Serial: 1059; Phantom section: Flat Section
-DASY52 52.8.2(969); SEMCAD X 14.6.6(6824)

portable,near-body/h52/53-7(repeat#5),ant=main,frt&d=0mm,11a(6m),h5220-2/
Area Scan:80x90,10 (9x10x1): Measurement grid: dx=10mm, dy=10mm; Maximum value of SAR (measured) = 1.98 W/kg
Area Scan:80x90,10 (81x91x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm; Maximum value of SAR (interpolated) = 2.58 W/kg
Z Scan:135,5 (1x1x31): Measurement grid: dx=20mm, dy=20mm, dz=5mm; Maximum value of SAR (measured) = 2.39 W/kg

Zoom:28x28x24-4/4/1.4-1.4-1.4 (8x8x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm;
Reference Value = 22.886 V/m; Power Drift = 0.17 dB, Maximum value of SAR (measured) = 2.35 W/kg
Peak SAR (extrapolated) = 3.979 mW/g
SAR(1 g) = 0.982 mW/g; SAR(10 g) = 0.287 mW/g



Remarks: *. Date tested: 2013/04/03; Tested by: Hiroshi Naka; Tested place:No.7 shielded room,
*.liquid depth: 145mm; Position: distance of EUT to phantom: 0mm (2mm to liquid); ambient: 24.5 ± 0.5deg.C. / 45 ± 5 %RH,
*.liquid temperature: 24.3(start)/24.3(end)/24.7(in check) deg.C.; *.White cubic: zoom scan area, Red cubic: big=SAR(10g)/small=SAR(1g)

Appendix 2-5: Measurement data (5180-5320 MHz, W52/53 band) / Head liquid (cont'd)
Step 2a: Change the channels (cont'd)

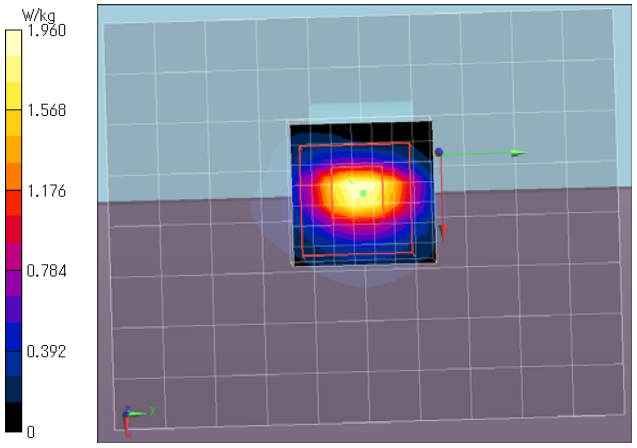
Step 2a-6: 5180MHz (36ch) / Sub antenna, Front (Patient side) and touch, 11a (6Mbps)

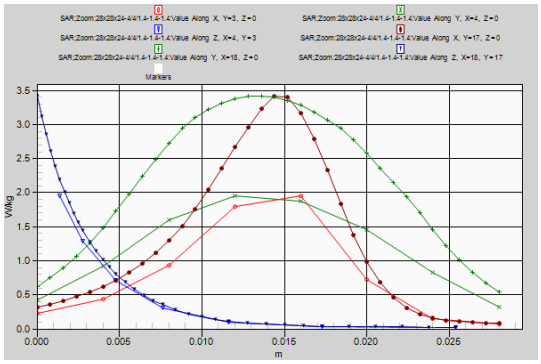
EUT: AeroDR SYSTEM; Type: AeroDR P-31; Serial: C1-35
Communication System: IEEE 802.11a(6Mbps, BPSK/OFDM); Frequency: 5180 MHz; Crest Factor: 1.0
Medium: HSL5800_head; Medium parameters used: f = 5180 MHz; σ = 4.745 S/m; ε_r = 36.06; ρ = 1000 kg/m^3
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration: -Probe: EX3DV4 - SN3679; ConvF(4.66, 4.66, 4.66); Calibrated: 2012/06/21;
-Sensor-Surface: 1.4mm (Mechanical Surface Detection), z = 1.0, 25.0, 151.0 -Electronics: DAE4 Sn626; Calibrated: 2013/03/11
-Phantom: ELI v4.0; Type: QDOVA001BA; Serial: 1059; Phantom section: Flat Section
-DASY52 52.8.2(969); SEMCAD X 14.6.6(6824)

portable,near-body/h52/53-9,ant=sub,frt&d=0mm,11a(6m),h5180/
Area Scan:80x100,10 (9x11x1): Measurement grid: dx=10mm, dy=10mm; Maximum value of SAR (measured) = 1.15 W/kg
Area Scan:80x100,10 (81x101x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm; Maximum value of SAR (interpolated) = 1.78 W/kg
Z Scan:150,5 (1x1x31): Measurement grid: dx=20mm, dy=20mm, dz=5mm; Maximum value of SAR (measured) = 1.96 W/kg

Zoom:28x28x24-4/4/1.4-1.4-1.4 (8x8x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm;
Reference Value = 23.308 V/m; Power Drift = -0.03 dB, Maximum value of SAR (measured) = 1.96 W/kg
Peak SAR (extrapolated) = 3.423 mW/g
SAR(1 g) = 0.816 mW/g; SAR(10 g) = 0.232 mW/g





Remarks: *. Date tested: 2013/04/03; Tested by: Hiroshi Naka; Tested place:No.7 shielded room,
*.liquid depth: 145mm; Position: distance of EUT to phantom: 0mm (2mm to liquid); ambient: 24.5 ± 0.5deg.C. / 45 ± 5 %RH,
*.liquid temperature: 24.3(start)/24.3(end)/24.7(in check) deg.C.; *.White cubic: zoom scan area, Red cubic: big=SAR(10g)/small=SAR(1g)

Appendix 2-5: Measurement data (5180-5320 MHz, W52/53 band) / Head liquid (cont'd)
Step 2a: Change the channels (cont'd)

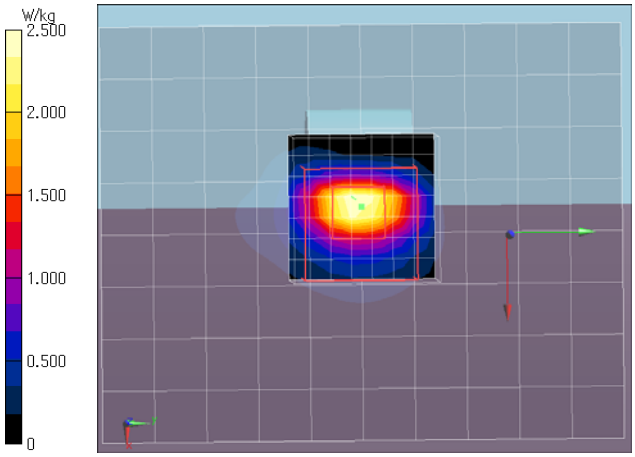
Step 2a-7: 5240MHz (48ch) / Sub antenna, Front (Patient side) and touch, 11a (6Mbps)

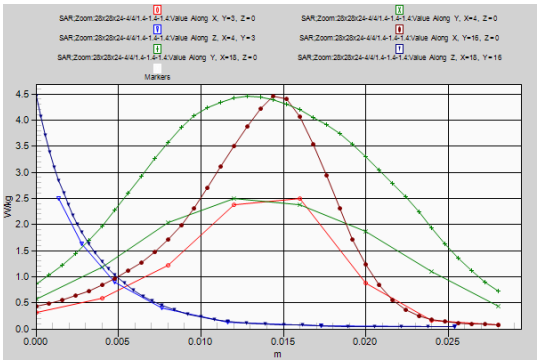
EUT: AeroDR SYSTEM; Type: AeroDR P-31; Serial: C1-35
Communication System: IEEE 802.11a(6Mbps, BPSK/OFDM); Frequency: 5240 MHz; Crest Factor: 1.0
Medium: HSL5800_head; Medium parameters used: f = 5240 MHz; σ = 4.744 S/m; ε_r = 36.50; ρ = 1000 kg/m^3
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration: -Probe: EX3DV4 - SN3679; ConvF(4.66, 4.66, 4.66); Calibrated: 2012/06/21;
-Sensor-Surface: 1.4mm (Mechanical Surface Detection), z = 1.0, 25.0, 151.0 -Electronics: DAE4 Sn626; Calibrated: 2013/03/11
-Phantom: ELI v4.0; Type: QDOVA001BA; Serial: 1059; Phantom section: Flat Section
-DASY52 52.8.2(969); SEMCAD X 14.6.6(6824)

portable,near-body/h52/53-10,ant=sub,frt&d=0mm,11a(6m),h5240/
Area Scan:80x100,10 (9x11x1): Measurement grid: dx=10mm, dy=10mm; Maximum value of SAR (measured) = 1.48 W/kg
Area Scan:80x100,10 (81x101x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm; Maximum value of SAR (interpolated) = 2.26 W/kg
Z Scan:150,5 (1x1x31): Measurement grid: dx=20mm, dy=20mm, dz=5mm; Maximum value of SAR (measured) = 2.51 W/kg

Zoom:28x28x24-4/4/1.4-1.4-1.4 (8x8x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm;
Reference Value = 26.423 V/m; Power Drift = -0.05 dB, Maximum value of SAR (measured) = 2.50 W/kg
Peak SAR (extrapolated) = 4.465 mW/g
SAR(1 g) = 1.05 mW/g; SAR(10 g) = 0.307 mW/g





Remarks: *. Date tested: 2013/04/03; Tested by: Hiroshi Naka; Tested place:No.7 shielded room,
*.liquid depth: 145mm; Position: distance of EUT to phantom: 0mm (2mm to liquid); ambient: 24.5 ± 0.5deg.C. / 45 ± 5 %RH,
*.liquid temperature: 24.2(start)/24.1(end)/24.7(in check) deg.C.; *.White cubic: zoom scan area, Red cubic: big=SAR(10g)/small=SAR(1g)

Appendix 2-5: Measurement data (5180-5320 MHz, W52/53 band) / Head liquid (cont'd)
Step 2a: Change the channels (cont'd)

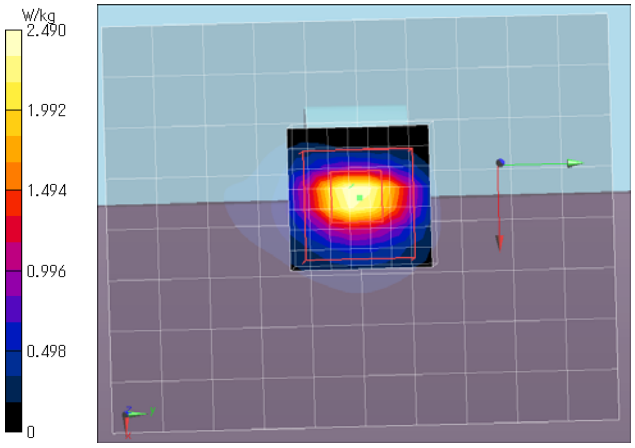
Step 2a-8: 5260MHz (52ch) / Sub antenna, Front (Patient side) and touch, 11a (6Mbps)

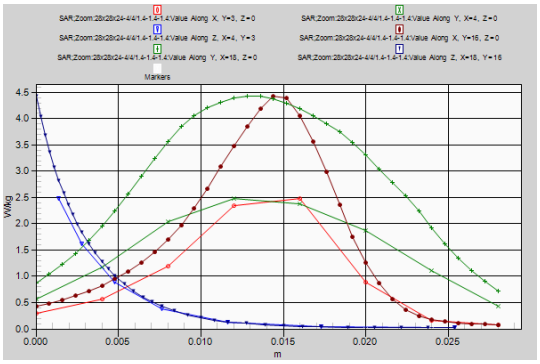
EUT: AeroDR SYSTEM; Type: AeroDR P-31; Serial: C1-35
Communication System: IEEE 802.11a(6Mbps, BPSK/OFDM); Frequency: 5260 MHz; Crest Factor: 1.0
Medium: HSL5800_head; Medium parameters used: f = 5260 MHz; σ = 4.834 S/m; ε_r = 36.37; ρ = 1000 kg/m^3
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration: -Probe: EX3DV4 - SN3679; ConvF(4.63, 4.63, 4.63); Calibrated: 2012/06/21;
-Sensor-Surface: 1.4mm (Mechanical Surface Detection), z = 1.0, 25.0, 151.0 -Electronics: DAE4 Sn626; Calibrated: 2013/03/11
-Phantom: ELI v4.0; Type: QDOVA001BA; Serial: 1059; Phantom section: Flat Section
-DASY52 52.8.2(969); SEMCAD X 14.6.6(6824)

portable,near-body/h52/53-8,ant=sub,frt&d=0mm,11a(6m),h5260/
Area Scan:80x100,10 (9x11x1): Measurement grid: dx=10mm, dy=10mm; Maximum value of SAR (measured) = 1.48 W/kg
Area Scan:80x100,10 (81x101x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm; Maximum value of SAR (interpolated) = 2.27 W/kg
Z Scan:150,5 (1x1x31): Measurement grid: dx=20mm, dy=20mm, dz=5mm; Maximum value of SAR (measured) = 2.50 W/kg

Zoom:28x28x24-4/4/1.4-1.4-1.4 (8x8x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm;
Reference Value = 26.253 V/m; Power Drift = 0.00 dB, Maximum value of SAR (measured) = 2.49 W/kg
Peak SAR (extrapolated) = 4.436 mW/g
SAR(1 g) = 1.03 mW/g; SAR(10 g) = 0.290 mW/g





Remarks: *. Date tested: 2013/04/03; Tested by: Hiroshi Naka; Tested place:No.7 shielded room,
*.liquid depth: 145mm; Position: distance of EUT to phantom: 0mm (2mm to liquid); ambient: 24.5 ± 0.5deg.C. / 45 ± 5 %RH,
*.liquid temperature: 24.4(start)/24.3(end)/24.7(in check) deg.C.; *.White cubic: zoom scan area, Red cubic: big=SAR(10g)/small=SAR(1g)

Appendix 2-5: Measurement data (5180-5320 MHz, W52/53 band) / Head liquid (cont'd)
Step 2a: Change the channels (cont'd)

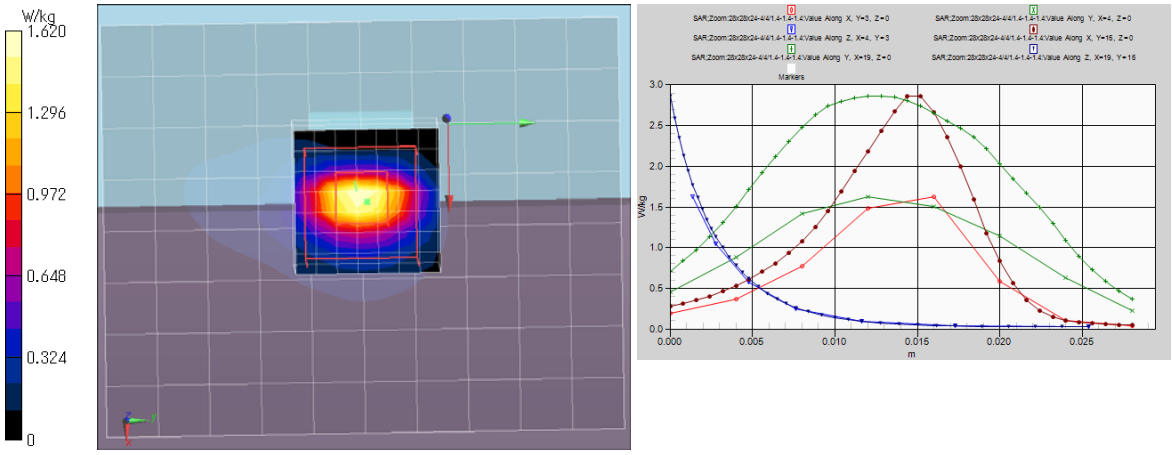
Step 2a-9: 5320MHz (64ch) / Sub antenna, Front (Patient side) and touch, 11a (6Mbps)

EUT: AeroDR SYSTEM; Type: AeroDR P-31; Serial: C1-35
Communication System: IEEE 802.11a(6Mbps, BPSK/OFDM); Frequency: 5320 MHz; Crest Factor: 1.0
Medium: HSL5800_head; Medium parameters used: f = 5320 MHz; σ = 4.856 S/m; ε_r = 35.94; ρ = 1000 kg/m^3
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration: -Probe: EX3DV4 - SN3679; ConvF(4.63, 4.63, 4.63); Calibrated: 2012/06/21;
-Sensor-Surface: 1.4mm (Mechanical Surface Detection), z = 1.0, 25.0, 151.0 -Electronics: DAE4 Sn626; Calibrated: 2013/03/11
-Phantom: ELI v4.0; Type: QDOVA001BA; Serial: 1059; Phantom section: Flat Section
-DASY52 52.8.2(969); SEMCAD X 14.6.6(6824)

portable,near-body/h52/53-11,ant=sub,frt&d=0mm,11a(6m),h5320/
Area Scan:80x100,10 (9x11x1): Measurement grid: dx=10mm, dy=10mm; Maximum value of SAR (measured) = 0.923 W/kg
Area Scan:80x100,10 (81x101x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm; Maximum value of SAR (interpolated) = 1.47 W/kg
Z Scan:150,5 (1x1x31): Measurement grid: dx=20mm, dy=20mm, dz=5mm; Maximum value of SAR (measured) = 1.65 W/kg

Zoom:28x28x24-4/4/1.4-1.4-1.4 (8x8x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm;
Reference Value = 20.661 V/m; Power Drift = 0.09 dB, Maximum value of SAR (measured) = 1.62 W/kg
Peak SAR (extrapolated) = 2.869 mW/g
SAR(1 g) = 0.667 mW/g; SAR(10 g) = 0.195 mW/g



Remarks: *. Date tested: 2013/04/03; Tested by: Hiroshi Naka; Tested place:No.7 shielded room,
*.liquid depth: 145mm; Position: distance of EUT to phantom: 0mm (2mm to liquid); ambient: 24.5 ± 0.5deg.C. / 45 ± 5 %RH,
*.liquid temperature: 24.1(start)/24.1(end)/24.7(in check) deg.C.; *.White cubic: zoom scan area, Red cubic: big=SAR(10g)/small=SAR(1g)

Appendix 2-5: Measurement data (5180-5320 MHz, W52/53 band) / Head liquid (cont'd)
Step 2a: Change the channels (cont'd)

Step 2a-10:5240MHz (48ch)-repeated / Sub antenna, Front (Patient side) and touch, 11a (6Mbps)
->Worst reported SAR(1g) of the Sub antenna in 5180-5320MHz (W52/53) band

EUT: AeroDR SYSTEM; Type: AeroDR P-31; Serial: C1-35

Communication System: IEEE 802.11a(6Mbps, BPSK/OFDM); Frequency: 5240 MHz; Crest Factor: 1.0

Medium: HSL5800_head; Medium parameters used: f = 5240 MHz; σ = 4.744 S/m; ε_r = 36.50; ρ = 1000 kg/m^3

Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration:

-Probe: EX3DV4 - SN3679; ConvF(4.66, 4.66, 4.66); Calibrated: 2012/06/21;
-Sensor-Surface: 1.4mm (Mechanical Surface Detection), z = 1.0, 25.0, 151.0
-Electronics: DAE4 Sn626; Calibrated: 2013/03/11
-Phantom: ELI v4.0; Type: QDOVA001BA; Serial: 1059; Phantom section: Flat Section
-DASY52 52.8.2(969); SEMCAD X 14.6.6(6824)

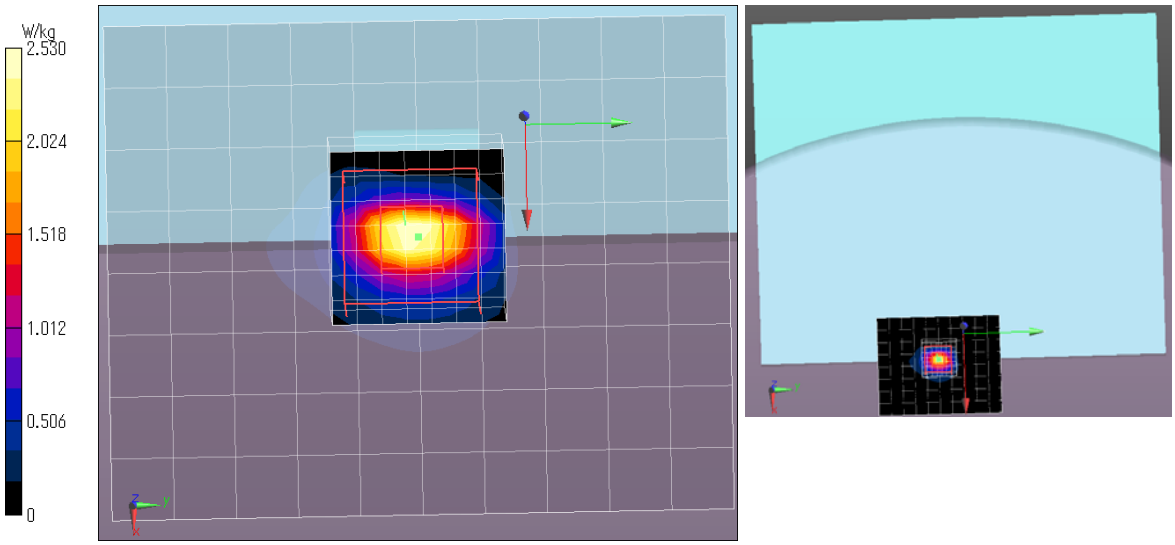
portable,near-body/h52/53-12(repeat#10),ant=sub,frt&d=0mm,11a(6m),h5240-2/

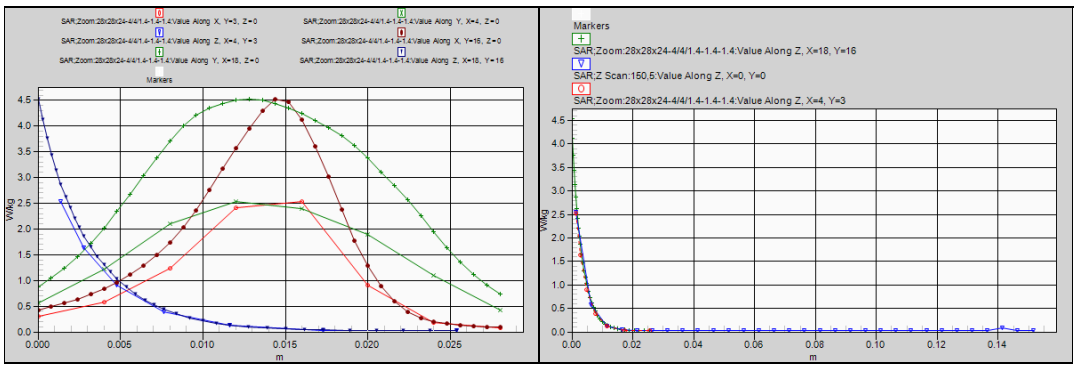
Area Scan:80x100,10 (9x11x1): Measurement grid: dx=10mm, dy=10mm; Maximum value of SAR (measured) = 1.49 W/kg

Area Scan:80x100,10 (81x101x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm; Maximum value of SAR (interpolated) = 2.27 W/kg

Z Scan:150,5 (1x1x31): Measurement grid: dx=20mm, dy=20mm, dz=5mm; Maximum value of SAR (measured) = 2.55 W/kg

Zoom:28x28x24-4/4/1.4-1.4-1.4 (8x8x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm;
Reference Value = 26.476 V/m; Power Drift = 0.01 dB, Maximum value of SAR (measured) = 2.53 W/kg
Peak SAR (extrapolated) = 4.529 mW/g
SAR(1 g) = 1.06 mW/g; SAR(10 g) = 0.298 mW/g





Remarks: *. Date tested: 2013/04/03; Tested by: Hiroshi Naka; Tested place:No.7 shielded room,
*.liquid depth: 145mm; Position: distance of EUT to phantom: 0mm (2mm to liquid); ambient: 24.5 ± 0.5deg.C. / 45 ± 5 %RH,
*.liquid temperature: 24.0(start)/23.9(end)/24.7(in check) deg.C.; *.White cubic: zoom scan area, Red cubic: big=SAR(10g)/small=SAR(1g)

Appendix 2-6: Measurement data (5500-5700 MHz, W56 band) / Head liquid

Step 2b: Change the channels

Step 2b-1: 5500MHz (100ch) / Main antenna, Front (Patient side) and touch, 11a (6Mbps)

EUT: AeroDR SYSTEM; Type: AeroDR P-31; Serial: C1-35

Communication System: IEEE 802.11a(6Mbps, BPSK/OFDM); Frequency: 5500 MHz; Crest Factor: 1.0

Medium: HSL5800_head; Medium parameters used: f = 5500 MHz; σ = 5.031 S/m; ε_r = 35.80; ρ = 1000 kg/m^3

Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration: -Probe: EX3DV4 - SN3679; ConvF(4.3, 4.3, 4.3); Calibrated: 2012/06/21;
-Sensor-Surface: 1.4mm (Mechanical Surface Detection), z = 1.0, 25.0, 151.0 -Electronics: DAE4 Sn626; Calibrated: 2013/03/11
-Phantom: ELI v4.0; Type: QDOVA001BA; Serial: 1059; Phantom section: Flat Section
-DASY52 52.8.2(969); SEMCAD X 14.6.6(6824)

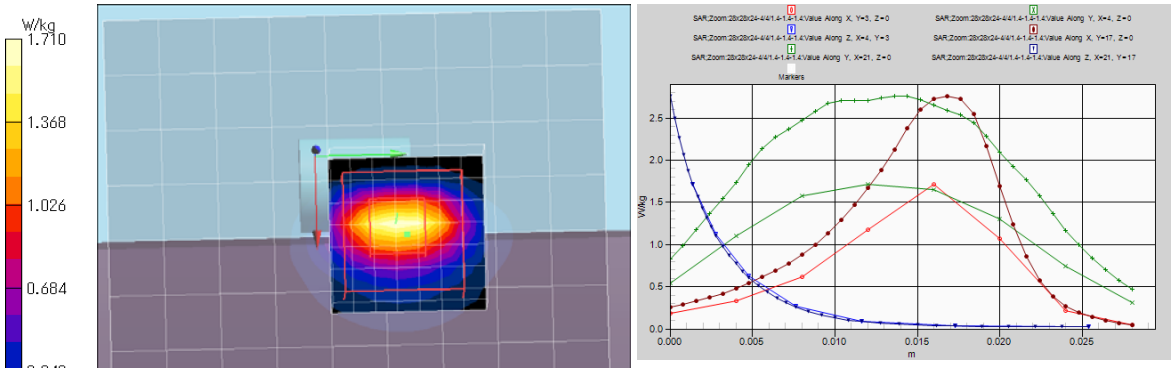
portable,near-body,w56/h56-1,ant=main,frt&d=0mm,11a(6m),h5500/

Area Scan:80x90,10 (9x10x1): Measurement grid: dx=10mm, dy=10mm; Maximum value of SAR (measured) = 1.52 W/kg

Area Scan:80x90,10 (81x91x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm; Maximum value of SAR (interpolated) = 1.71 W/kg

Z Scan:150,5 (1x1x31): Measurement grid: dx=20mm, dy=20mm, dz=5mm; Maximum value of SAR (measured) = 1.72 W/kg

Zoom:28x28x24-4/4/1.4-1.4-1.4 (8x8x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm;
Reference Value = 19.415 V/m; Power Drift = 0.01 dB, Maximum value of SAR (measured) = 1.71 W/kg
Peak SAR (extrapolated) = 2.764 mW/g
SAR(1 g) = 0.679 mW/g; SAR(10 g) = 0.205 mW/g



Remarks: *. Date tested: 2013/04/04; Tested by: Hiroshi Naka; Tested place:No.7 shielded room,
*.liquid depth: 144mm; Position: distance of EUT to phantom: 0mm (2mm to liquid); ambient: 24.5 ± 0.5deg.C. / 45 ± 5 %RH,
*.liquid temperature: 23.4(start)/23.4(end)/23.4(in check) deg.C.; *.White cubic: zoom scan area, Red cubic: big=SAR(10g)/small=SAR(1g)

Appendix 2-6: Measurement data (5500-5700 MHz, W56 band) / Head liquid (cont'd)
Step 2b: Change the channels (cont'd)

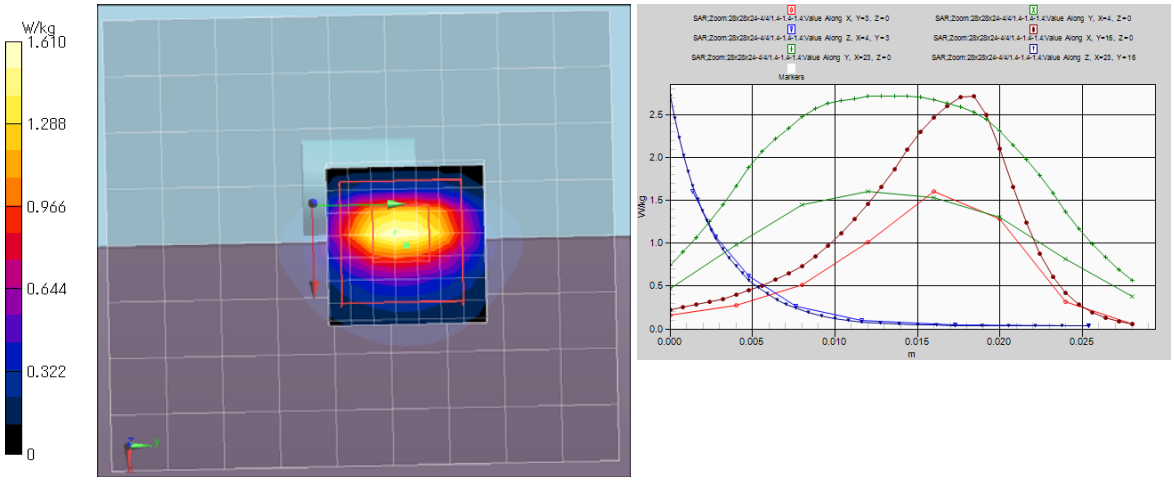
Step 2b-2: 5580MHz (116ch) / Main antenna, Front (Patient side) and touch, 11a (6Mbps)

EUT: AeroDR SYSTEM; Type: AeroDR P-31; Serial: C1-35
Communication System: IEEE 802.11a(6Mbps, BPSK/OFDM); Frequency: 5580 MHz; Crest Factor: 1.0
Medium: HSL5800_head; Medium parameters used: f = 5580 MHz; σ = 5.135 S/m; ε_r = 35.66; ρ = 1000 kg/m^3
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration: -Probe: EX3DV4 - SN3679; ConvF(4.04, 4.04, 4.04); Calibrated: 2012/06/21;
-Sensor-Surface: 1.4mm (Mechanical Surface Detection), z = 1.0, 25.0, 151.0 -Electronics: DAE4 Sn626; Calibrated: 2013/03/11
-Phantom: ELI v4.0; Type: QDOVA001BA; Serial: 1059; Phantom section: Flat Section
-DASY52 52.8.2(969); SEMCAD X 14.6.6(6824)

portable,near-body,w56/h56-2,ant=main,frt&d=0mm,11a(6m),h5580/
Area Scan:80x90,10 (9x10x1): Measurement grid: dx=10mm, dy=10mm; Maximum value of SAR (measured) = 1.50 W/kg
Area Scan:80x90,10 (81x91x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm; Maximum value of SAR (interpolated) = 1.62 W/kg
Z Scan:150,5 (1x1x31): Measurement grid: dx=20mm, dy=20mm, dz=5mm; Maximum value of SAR (measured) = 1.62 W/kg

Zoom:28x28x24-4/4/1.4-1.4-1.4 (8x8x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm;
Reference Value = 17.970 V/m; Power Drift = 0.05 dB, Maximum value of SAR (measured) = 1.61 W/kg
Peak SAR (extrapolated) = 2.725 mW/g
SAR(1 g) = 0.661 mW/g; SAR(10 g) = 0.206 mW/g



Remarks: *. Date tested: 2013/04/04; Tested by: Hiroshi Naka; Tested place:No.7 shielded room,
*.liquid depth: 144mm; Position: distance of EUT to phantom: 0mm (2mm to liquid); ambient: 24.5 ± 0.5deg.C. / 45 ± 5 %RH,
*.liquid temperature: 23.4(start)/23.4(end)/23.4(in check) deg.C.; *.White cubic: zoom scan area, Red cubic: big=SAR(10g)/small=SAR(1g)

Appendix 2-6: Measurement data (5500-5700 MHz, W56 band) / Head liquid (cont'd)
Step 2b: Change the channels (cont'd)

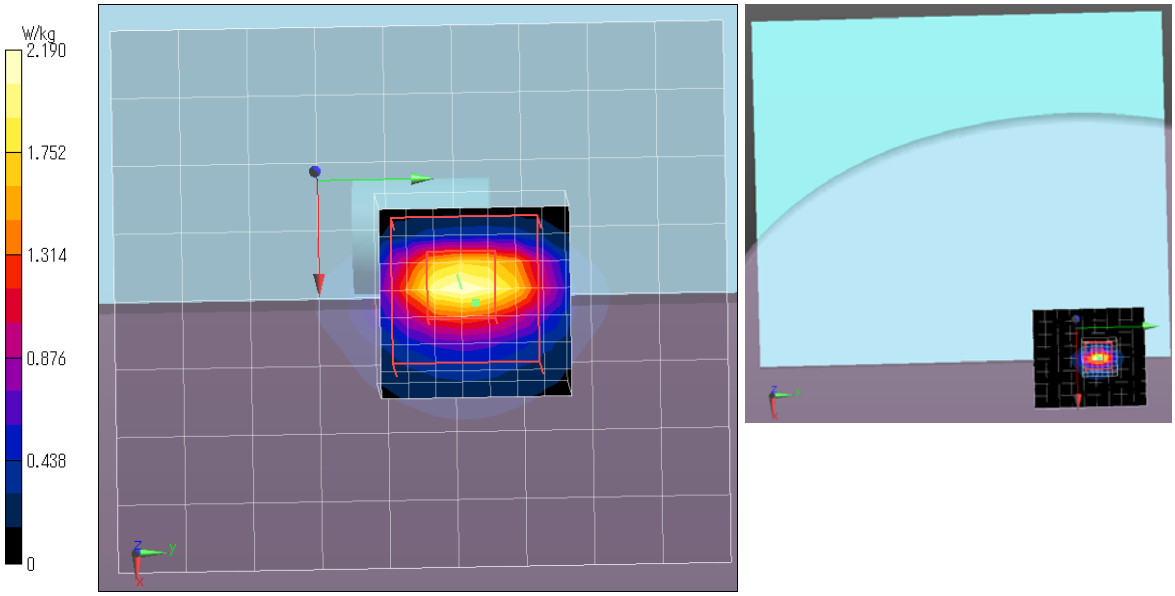
Step 2b-3: 5620MHz (124ch) / Main antenna, Front (Patient side) and touch, 11a (6Mbps)

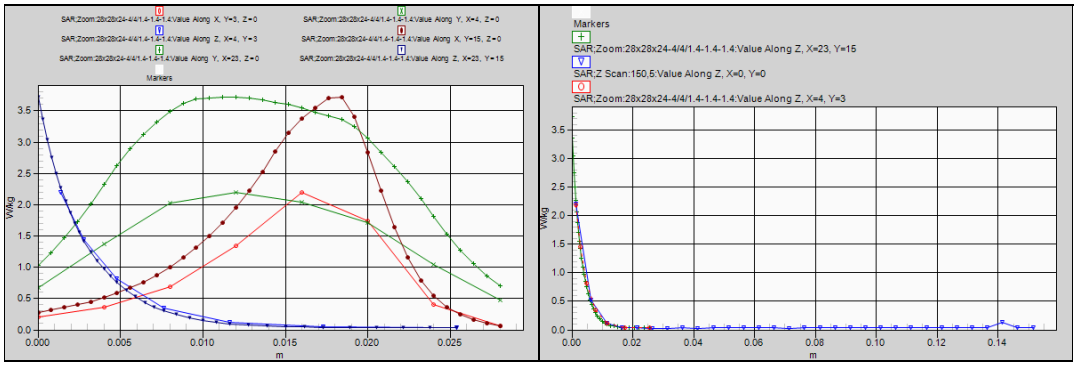
EUT: AeroDR SYSTEM; Type: AeroDR P-31; Serial: C1-35
Communication System: IEEE 802.11a(6Mbps, BPSK/OFDM); Frequency: 5620 MHz; Crest Factor: 1.0
Medium: HSL5800_head; Medium parameters used: f = 5620 MHz; σ = 5.196 S/m; ε_r = 35.63; ρ = 1000 kg/m^3
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration: -Probe: EX3DV4 - SN3679; ConvF(4.04, 4.04, 4.04); Calibrated: 2012/06/21;
-Sensor-Surface: 1.4mm (Mechanical Surface Detection), z = 1.0, 25.0, 136.0 -Electronics: DAE4 Sn626; Calibrated: 2013/03/11
-Phantom: ELI v4.0; Type: QDOVA001BA; Serial: 1059; Phantom section: Flat Section
-DASY52 52.8.2(969); SEMCAD X 14.6.6(6824)

portable,near-body,w56/h56-3,ant=main,frt&d=0mm,11a(6m),h5620/
Area Scan:80x90,10 (9x10x1): Measurement grid: dx=10mm, dy=10mm; Maximum value of SAR (measured) = 2.02 W/kg
Area Scan:80x90,10 (81x91x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm; Maximum value of SAR (interpolated) = 2.16 W/kg
Z Scan:150,5 (1x1x31): Measurement grid: dx=20mm, dy=20mm, dz=5mm; Maximum value of SAR (measured) = 2.21 W/kg

Zoom:28x28x24-4/4/1.4-1.4-1.4 (8x8x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm;
Reference Value = 20.489 V/m; Power Drift = 0.17 dB, Maximum value of SAR (measured) = 2.19 W/kg
Peak SAR (extrapolated) = 3.726 mW/g
SAR(1 g) = 0.880 mW/g (*. Measured maximum of Main antenna in W56 band.); **SAR(10 g) = 0.265 mW/g**





Remarks: *. Date tested: 2013/04/04; Tested by: Hiroshi Naka; Tested place:No.7 shielded room,
*.liquid depth: 144mm; Position: distance of EUT to phantom: 0mm (2mm to liquid); ambient: 24.5 ± 0.5deg.C. / 45 ± 5 %RH,
*.liquid temperature: 23.5(start)/23.5(end)/23.4(in check) deg.C.; *.White cubic: zoom scan area, Red cubic: big=SAR(10g)/small=SAR(1g)

Appendix 2-6: Measurement data (5500-5700 MHz, W56 band) / Head liquid (cont'd)
Step 2b: Change the channels (cont'd)

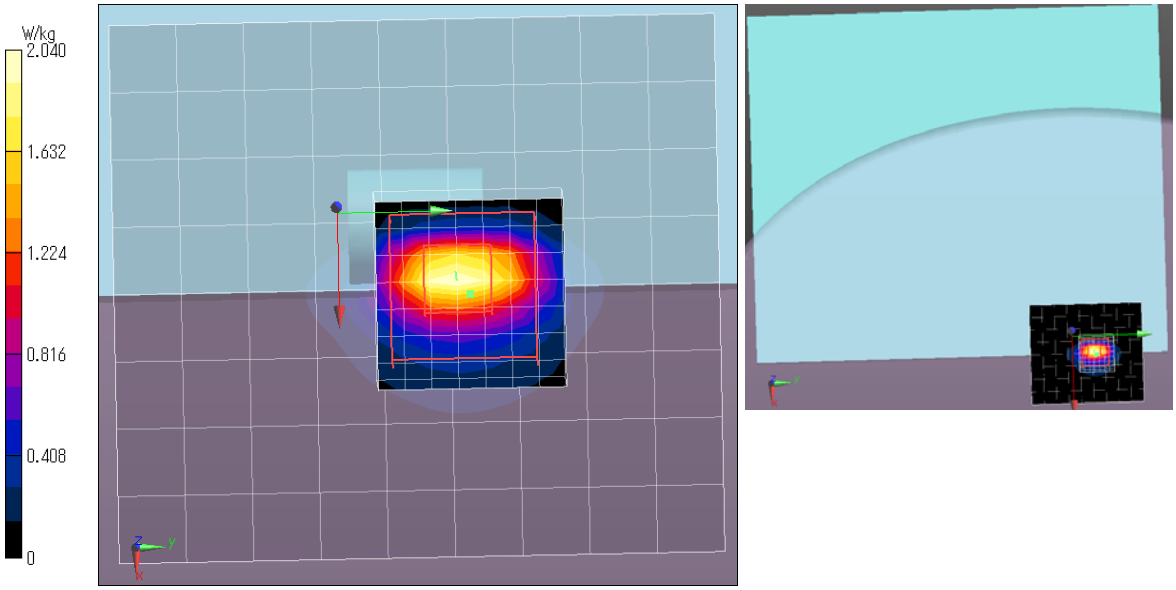
Step 2b-4: 5680MHz (136ch) / Main antenna, Front (Patient side) and touch, 11a (6Mbps)
->Worst reported SAR(1g) of the Main antenna in 5500-5700MHz (W56) band

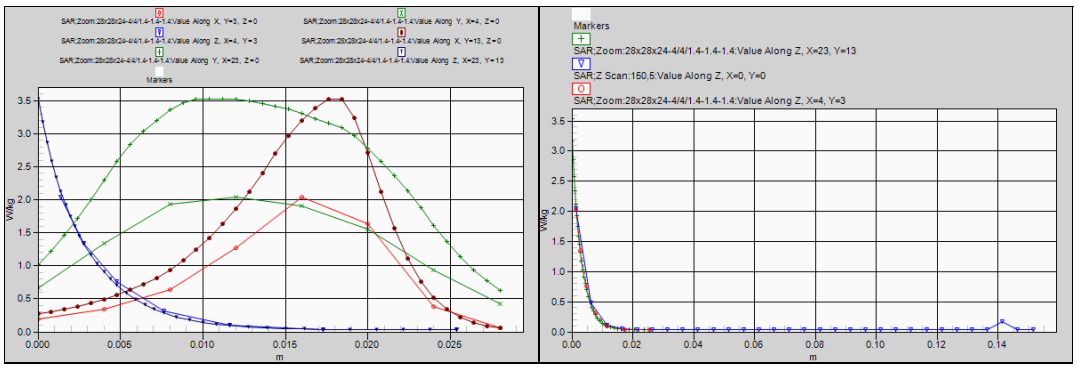
EUT: AeroDR SYSTEM; Type: AeroDR P-31; Serial: C1-35
Communication System: IEEE 802.11a(6Mbps, BPSK/OFDM); Frequency: 5680 MHz; Crest Factor: 1.0
Medium: HSL5800_head; Medium parameters used: f = 5680 MHz; σ = 5.237 S/m; ε_r = 35.53; ρ = 1000 kg/m^3
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration: -Probe: EX3DV4 - SN3679; ConvF(4.04, 4.04, 4.04); Calibrated: 2012/06/21;
-Sensor-Surface: 1.4mm (Mechanical Surface Detection), z = 1.0, 25.0, 151.0 -Electronics: DAE4 Sn626; Calibrated: 2013/03/11
-Phantom: ELI v4.0; Type: QDOVA001BA; Serial: 1059; Phantom section: Flat Section
-DASY52 52.8.2(969); SEMCAD X 14.6.6(6824)

portable,near-body,w56/h56-4,ant=main,frt&d=0mm,11a(6m),h5680/
Area Scan:80x90,10 (9x10x1): Measurement grid: dx=10mm, dy=10mm; Maximum value of SAR (measured) = 1.91 W/kg
Area Scan:80x90,10 (81x91x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm; Maximum value of SAR (interpolated) = 2.06 W/kg
Z Scan:150,5 (1x1x31): Measurement grid: dx=20mm, dy=20mm, dz=5mm; Maximum value of SAR (measured) = 2.05 W/kg

Zoom:28x28x24-4/4/1.4-1.4-1.4 (8x8x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm;
Reference Value = 19.864 V/m; Power Drift = 0.14 dB, Maximum value of SAR (measured) = 2.04 W/kg
Peak SAR (extrapolated) = 3.531 mW/g
SAR(1 g) = 0.825 mW/g; SAR(10 g) = 0.249 mW/g





Remarks: *. Date tested: 2013/04/04; Tested by: Hiroshi Naka; Tested place:No.7 shielded room,
*.liquid depth: 144mm; Position: distance of EUT to phantom: 0mm (2mm to liquid); ambient: 24.5 ± 0.5deg.C. / 45 ± 5 %RH,
*.liquid temperature: 23.5(start)/23.5(end)/23.4(in check) deg.C.; *.White cubic: zoom scan area, Red cubic: big=SAR(10g)/small=SAR(1g)

Appendix 2-6: Measurement data (5500-5700 MHz, W56 band) / Head liquid (cont'd)
Step 2b: Change the channels (cont'd)

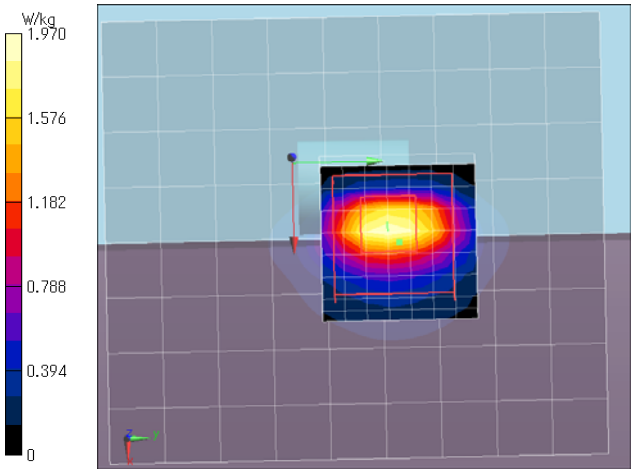
Step 2b-5: 5620MHz (124ch)-repeated / Main antenna, Front (Patient side) and touch, 11a (6Mbps)

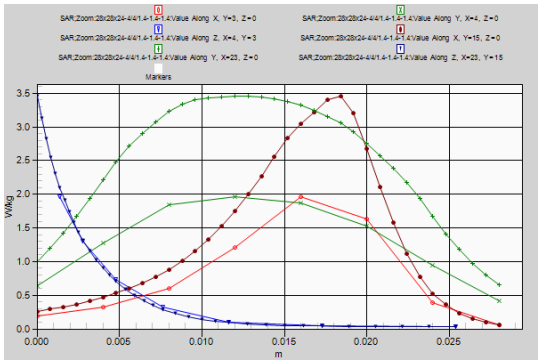
EUT: AeroDR SYSTEM; Type: AeroDR P-31; Serial: C1-35
Communication System: IEEE 802.11a(6Mbps, BPSK/OFDM); Frequency: 5620 MHz; Crest Factor: 1.0
Medium: HSL5800_head; Medium parameters used: f = 5620 MHz; σ = 5.196 S/m; ε_r = 35.63; ρ = 1000 kg/m^3
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration: -Probe: EX3DV4 - SN3679; ConvF(4.04, 4.04, 4.04); Calibrated: 2012/06/21;
-Sensor-Surface: 1.4mm (Mechanical Surface Detection), z = 1.0, 25.0, 136.0 -Electronics: DAE4 Sn626; Calibrated: 2013/03/11
-Phantom: ELI v4.0; Type: QDOVA001BA; Serial: 1059; Phantom section: Flat Section
-DASY52 52.8.2(969); SEMCAD X 14.6.6(6824)

portable,near-body,w56/h56-7(repeat#3),ant=main,frt&d=0mm,11a(6m),h5620-2/
Area Scan:80x90,10 (9x10x1): Measurement grid: dx=10mm, dy=10mm; Maximum value of SAR (measured) = 1.85 W/kg
Area Scan:80x90,10 (81x91x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm; Maximum value of SAR (interpolated) = 1.98 W/kg
Z Scan:150,5 (1x1x31): Measurement grid: dx=20mm, dy=20mm, dz=5mm; Maximum value of SAR (measured) = 2.00 W/kg

Zoom:28x28x24-4/4/1.4-1.4-1.4 (8x8x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm;
Reference Value = 19.686 V/m; Power Drift = 0.15 dB, Maximum value of SAR (measured) = 1.97 W/kg
Peak SAR (extrapolated) = 3.464 mW/g
SAR(1 g) = 0.808 mW/g; SAR(10 g) = 0.245 mW/g





Remarks: *. Date tested: 2013/04/04; Tested by: Hiroshi Naka; Tested place:No.7 shielded room,
*.liquid depth: 144mm; Position: distance of EUT to phantom: 0mm (2mm to liquid); ambient: 24.5 ± 0.5deg.C. / 45 ± 5 %RH,
*.liquid temperature: 23.6(start)/23.6(end)/23.4(in check) deg.C.; *.White cubic: zoom scan area, Red cubic: big=SAR(10g)/small=SAR(1g)

Appendix 2-6: Measurement data (5500-5700 MHz, W56 band) / Head liquid (cont'd)
Step 2b: Change the channels (cont'd)

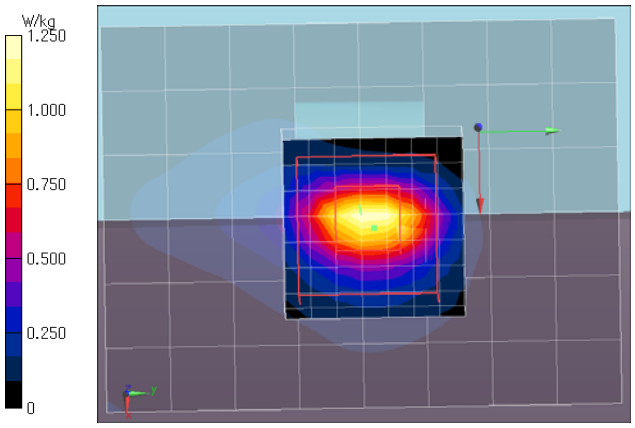
Step 2b-6: 5520MHz (104ch) / Sub antenna, Front (Patient side) and touch, 11a (6Mbps)

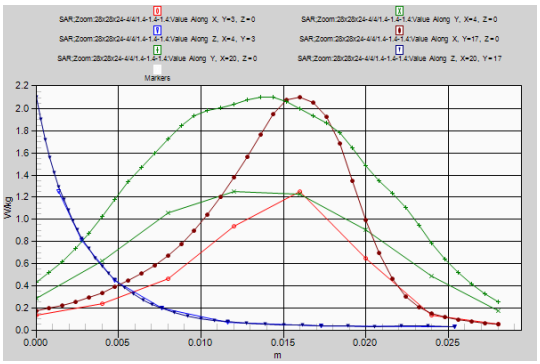
EUT: AeroDR SYSTEM; Type: AeroDR P-31; Serial: C1-35
Communication System: IEEE 802.11a(6Mbps, BPSK/OFDM); Frequency: 5520 MHz; Crest Factor: 1.0
Medium: HSL5800_head; Medium parameters used: f = 5520 MHz; σ = 5.068 S/m; ε_r = 35.90; ρ = 1000 kg/m^3
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration: -Probe: EX3DV4 - SN3679; ConvF(4.3, 4.3, 4.3); Calibrated: 2012/06/21;
-Sensor-Surface: 1.4mm (Mechanical Surface Detection), z = 1.0, 25.0 -Electronics: DAE4 Sn626; Calibrated: 2013/03/11
-Phantom: ELI v4.0; Type: QDOVA001BA; Serial: 1059; Phantom section: Flat Section
-DASY52 52.8.2(969); SEMCAD X 14.6.6(6824)

portable,near-body,w56/h56-10,ant=sub,frt&d=0mm,11a(6m),h5520/
Area Scan:60x80,10 (7x9x1): Measurement grid: dx=10mm, dy=10mm; Maximum value of SAR (measured) = 1.27 W/kg
Area Scan:60x80,10 (61x81x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm; Maximum value of SAR (interpolated) = 1.40 W/kg

Zoom:28x28x24-4/4/1.4-1.4-1.4 (8x8x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm;
Reference Value = 17.156 V/m; Power Drift = 0.06 dB, Maximum value of SAR (measured) = 1.25 W/kg
Peak SAR (extrapolated) = 2.108 mW/g
SAR(1 g) = 0.492 mW/g; SAR(10 g) = 0.150 mW/g





Remarks: *. Date tested: 2013/04/04; Tested by: Hiroshi Naka; Tested place:No.7 shielded room,
*.liquid depth: 144mm; Position: distance of EUT to phantom: 0mm (2mm to liquid); ambient: 24.5 ± 0.5deg.C. / 45 ± 5 %RH,
*.liquid temperature: 23.6(start)/23.6(end)/23.4(in check) deg.C.; *.White cubic: zoom scan area, Red cubic: big=SAR(10g)/small=SAR(1g)

Appendix 2-6: Measurement data (5500-5700 MHz, W56 band) / Head liquid (cont'd)
Step 2b: Change the channels (cont'd)

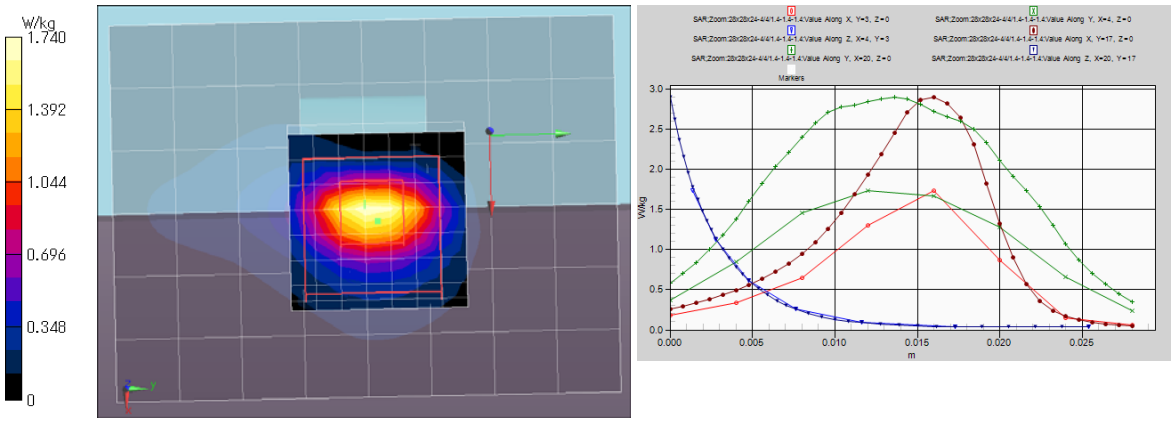
Step 2b-7: 5580MHz (116ch) / Sub antenna, Front (Patient side) and touch, 11a (6Mbps)

EUT: AeroDR SYSTEM; Type: AeroDR P-31; Serial: C1-35
Communication System: IEEE 802.11a(6Mbps, BPSK/OFDM); Frequency: 5580 MHz; Crest Factor: 1.0
Medium: HSL5800_head; Medium parameters used: f = 5580 MHz; σ = 5.135 S/m; ε_r = 35.66; ρ = 1000 kg/m^3
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration: -Probe: EX3DV4 - SN3679; ConvF(4.04, 4.04, 4.04); Calibrated: 2012/06/21;
-Sensor-Surface: 1.4mm (Mechanical Surface Detection), z = 1.0, 25.0 -Electronics: DAE4 Sn626; Calibrated: 2013/03/11
-Phantom: ELI v4.0; Type: QDOVA001BA; Serial: 1059; Phantom section: Flat Section
-DASY52 52.8.2(969); SEMCAD X 14.6.6(6824)

portable,near-body,w56/h56-11,ant=sub,frt&d=0mm,11a(6m),h5580/
Area Scan:60x80,10 (7x9x1): Measurement grid: dx=10mm, dy=10mm; Maximum value of SAR (measured) = 1.76 W/kg
Area Scan:60x80,10 (61x81x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm; Maximum value of SAR (interpolated) = 1.96 W/kg

Zoom:28x28x24-4/4/1.4-1.4-1.4 (8x8x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm;
Reference Value = 20.134 V/m; Power Drift = 0.07 dB, Maximum value of SAR (measured) = 1.74 W/kg
Peak SAR (extrapolated) = 2.904 mW/g
SAR(1 g) = 0.672 mW/g; SAR(10 g) = 0.198 mW/g



Remarks: *. Date tested: 2013/04/04; Tested by: Hiroshi Naka; Tested place:No.7 shielded room,
*.liquid depth: 144mm; Position: distance of EUT to phantom: 0mm (2mm to liquid); ambient: 24.5 ± 0.5deg.C. / 45 ± 5 %RH,
*.liquid temperature: 23.6(start)/23.6(end)/23.4(in check) deg.C.; *.White cubic: zoom scan area, Red cubic: big=SAR(10g)/small=SAR(1g)

Appendix 2-6: Measurement data (5500-5700 MHz, W56 band) / Head liquid (cont'd)
Step 2b: Change the channels (cont'd)

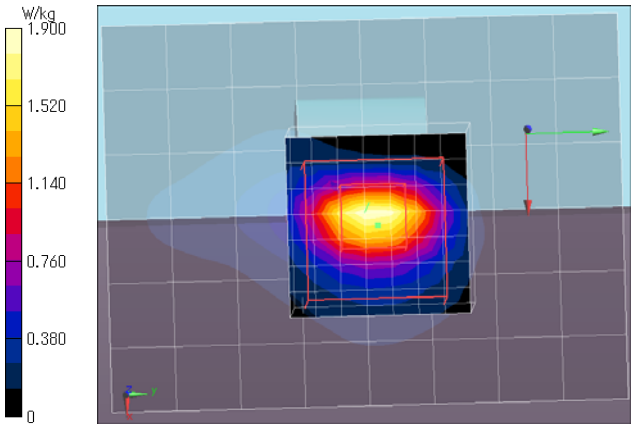
Step 2b-8: 5620MHz (124ch) / Sub antenna, Front (Patient side) and touch, 11a (6Mbps)

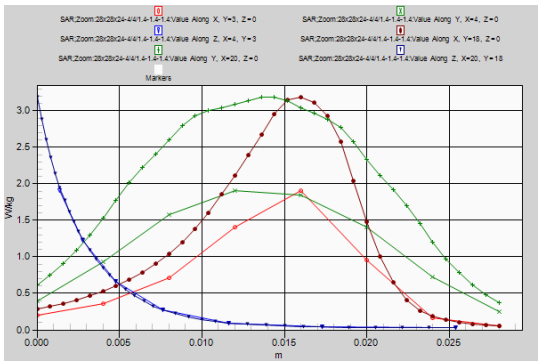
EUT: AeroDR SYSTEM; Type: AeroDR P-31; Serial: C1-35
Communication System: IEEE 802.11a(6Mbps, BPSK/OFDM); Frequency: 5620 MHz; Crest Factor: 1.0
Medium: HSL5800_head; Medium parameters used: f = 5620 MHz; σ = 5.196 S/m; ε_r = 35.63; ρ = 1000 kg/m^3
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration: -Probe: EX3DV4 - SN3679; ConvF(4.04, 4.04, 4.04); Calibrated: 2012/06/21;
-Sensor-Surface: 1.4mm (Mechanical Surface Detection), z = 1.0, 25.0 -Electronics: DAE4 Sn626; Calibrated: 2013/03/11
-Phantom: ELI v4.0; Type: QDOVA001BA; Serial: 1059; Phantom section: Flat Section
-DASY52 52.8.2(969); SEMCAD X 14.6.6(6824)

portable,near-body,w56/h56-12,ant=sub,frt&d=0mm,11a(6m),h5620/
Area Scan:60x80,10 (7x9x1): Measurement grid: dx=10mm, dy=10mm; Maximum value of SAR (measured) = 1.91 W/kg
Area Scan:60x80,10 (61x81x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm; Maximum value of SAR (interpolated) = 2.15 W/kg

Zoom:28x28x24-4/4/1.4-1.4-1.4 (8x8x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm;
Reference Value = 20.930 V/m; Power Drift = 0.11 dB, Maximum value of SAR (measured) = 1.90 W/kg
Peak SAR (extrapolated) = 3.193 mW/g
SAR(1 g) = 0.734 mW/g; SAR(10 g) = 0.213 mW/g





Remarks: *. Date tested: 2013/04/04; Tested by: Hiroshi Naka; Tested place:No.7 shielded room,
*.liquid depth: 144mm; Position: distance of EUT to phantom: 0mm (2mm to liquid); ambient: 24.5 ± 0.5deg.C. / 45 ± 5 %RH,
*.liquid temperature: 23.6(start)/23.7(end)/23.4(in check) deg.C.; *.White cubic: zoom scan area, Red cubic: big=SAR(10g)/small=SAR(1g)

Appendix 2-6: Measurement data (5500-5700 MHz, W56 band) / Head liquid (cont'd)
Step 2b: Change the channels (cont'd)

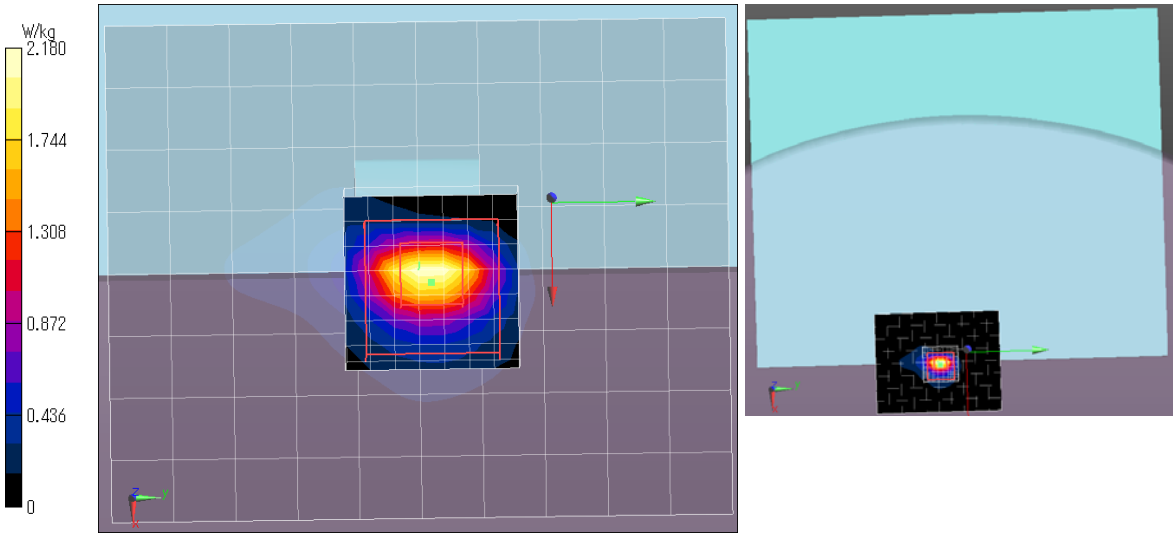
Step 2b-9: 5700MHz (140ch) / Sub antenna, Front (Patient side) and touch, 11a (6Mbps)
->Worst reported SAR(1g) of the Sub antenna in 5500-5700MHz (W56) band

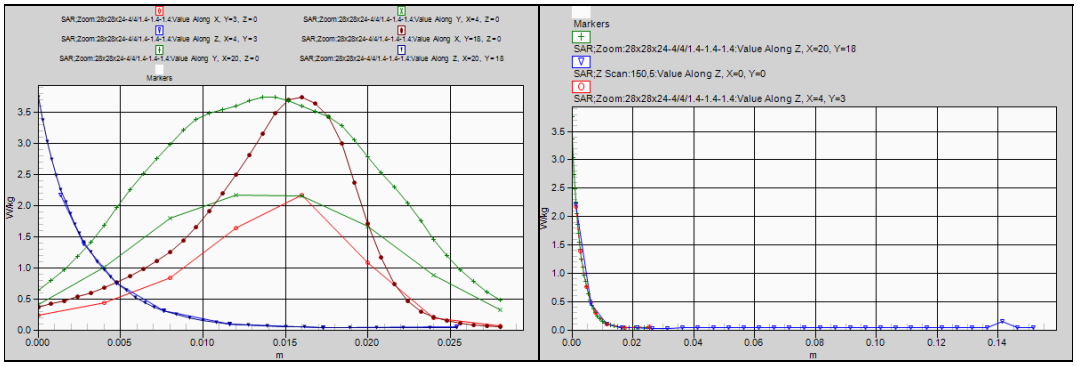
EUT: AeroDR SYSTEM; Type: AeroDR P-31; Serial: C1-35
Communication System: IEEE 802.11a(6Mbps, BPSK/OFDM); Frequency: 5700 MHz; Crest Factor: 1.0
Medium: HSL5800_head; Medium parameters used: f = 5700 MHz; σ = 5.289 S/m; ε_r = 35.48; ρ = 1000 kg/m^3
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration: -Probe: EX3DV4 - SN3679; ConvF(4.04, 4.04, 4.04); Calibrated: 2012/06/21;
-Sensor-Surface: 1.4mm (Mechanical Surface Detection), z = 1.0, 25.0, 151.0 -Electronics: DAE4 Sn626; Calibrated: 2013/03/11
-Phantom: ELI v4.0; Type: QDOVA001BA; Serial: 1059; Phantom section: Flat Section
-DASY52 52.8.2(969); SEMCAD X 14.6.6(6824)

portable,near-body,w56/h56-9,ant=sub,frt&d=0mm,11a(6m),h5700/
Area Scan:80x100,10 (9x11x1): Measurement grid: dx=10mm, dy=10mm; Maximum value of SAR (measured) = 2.16 W/kg
Area Scan:80x100,10 (81x101x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm; Maximum value of SAR (interpolated) = 2.49 W/kg
Z Scan:150,5 (1x1x31): Measurement grid: dx=20mm, dy=20mm, dz=5mm; Maximum value of SAR (measured) = 2.20 W/kg

Zoom:28x28x24-4/4/1.4-1.4-1.4 (8x8x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm;
Reference Value = 22.198 V/m; Power Drift = 0.04 dB, Maximum value of SAR (measured) = 2.18 W/kg
Peak SAR (extrapolated) = 3.754 mW/g
SAR(1 g) = 0.842 mW/g; SAR(10 g) = 0.242 mW/g





Remarks: *. Date tested: 2013/04/04; Tested by: Hiroshi Naka; Tested place:No.7 shielded room,
*.liquid depth: 144mm; Position: distance of EUT to phantom: 0mm (2mm to liquid); ambient: 24.5 ± 0.5deg.C. / 45 ± 5 %RH,
*.liquid temperature: 23.6(start)/23.6(end)/23.4(in check) deg.C.; *.White cubic: zoom scan area, Red cubic: big=SAR(10g)/small=SAR(1g)

Appendix 2-6: Measurement data (5500-5700 MHz, W56 band) / Head liquid (cont'd)
Step 2b: Change the channels (cont'd)

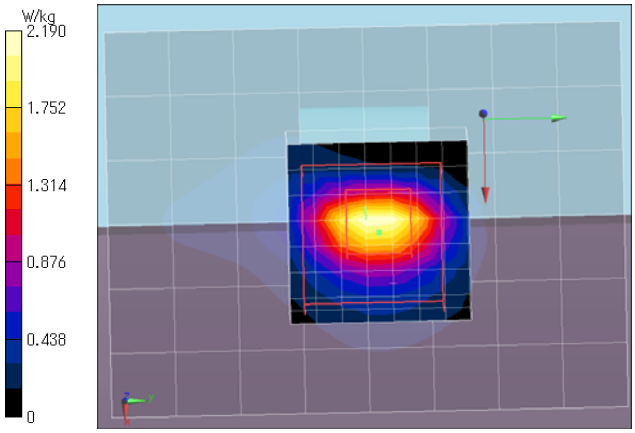
Step 2b-10: 5700MHz (140ch)-repeated / Sub antenna, Front (Patient side) and touch, 11a (6Mbps)

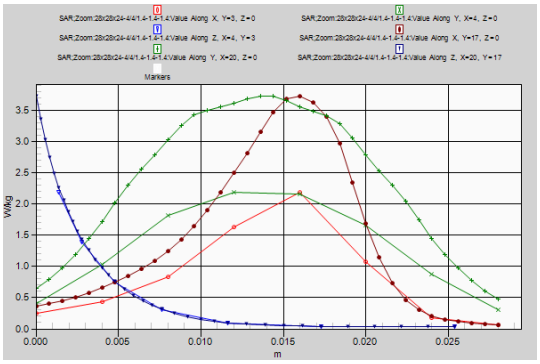
EUT: AeroDR SYSTEM; Type: AeroDR P-31; Serial: C1-35
Communication System: IEEE 802.11a(6Mbps, BPSK/OFDM); Frequency: 5700 MHz; Crest Factor: 1.0
Medium: HSL5800_head; Medium parameters used: f = 5700 MHz; σ = 5.289 S/m; ε_r = 35.48; ρ = 1000 kg/m^3
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration: -Probe: EX3DV4 - SN3679; ConvF(4.04, 4.04, 4.04); Calibrated: 2012/06/21;
-Sensor-Surface: 1.4mm (Mechanical Surface Detection), z = 1.0, 25.0, 151.0 -Electronics: DAE4 Sn626; Calibrated: 2013/03/11
-Phantom: ELI v4.0; Type: QDOVA001BA; Serial: 1059; Phantom section: Flat Section
-DASY52 52.8.2(969); SEMCAD X 14.6.6(6824)

portable,near-body,w56/h56-15(rep#9),ant=sub,frt&d=0mm,11a(6m),h5700-2/
Area Scan:60x80,10 (7x9x1): Measurement grid: dx=10mm, dy=10mm; Maximum value of SAR (measured) = 2.20 W/kg
Area Scan:60x80,10 (61x81x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm; Maximum value of SAR (interpolated) = 2.52 W/kg
Z Scan:150,5 (1x1x31): Measurement grid: dx=20mm, dy=20mm, dz=5mm; Maximum value of SAR (measured) = 2.19 W/kg

Zoom:28x28x24-4/4/1.4-1.4-1.4 (8x8x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm;
Reference Value = 22.114 V/m; Power Drift = 0.09 dB, Maximum value of SAR (measured) = 2.19 W/kg
Peak SAR (extrapolated) = 3.735 mW/g
SAR(1 g) = 0.841 mW/g; SAR(10 g) = 0.240 mW/g





Remarks: *. Date tested: 2013/04/04; Tested by: Hiroshi Naka; Tested place:No.7 shielded room,
*.liquid depth: 144mm; Position: distance of EUT to phantom: 0mm (2mm to liquid); ambient: 24.5 ± 0.5deg.C. / 45 ± 5 %RH,
*.liquid temperature: 23.7(start)/23.8(end)/23.4(in check) deg.C.; *.White cubic: zoom scan area, Red cubic: big=SAR(10g)/small=SAR(1g)

Appendix 2-7: Measurement data (5745-5825MHz, W58 band) / Head liquid

Step 2c: Change the channels

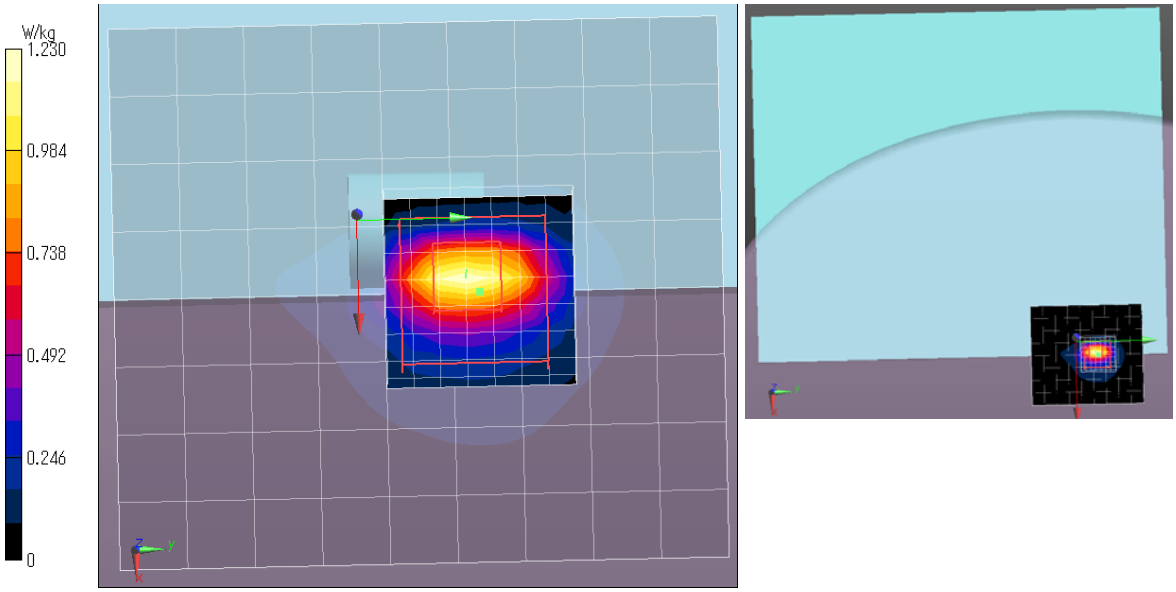
Step 2c-1: 5745MHz (149ch) / Main antenna, Front (Patient side) and touch, 11a (6Mbps)
->Worst reported SAR(1g) of the Main antenna in 5745-5825MHz (W58) band

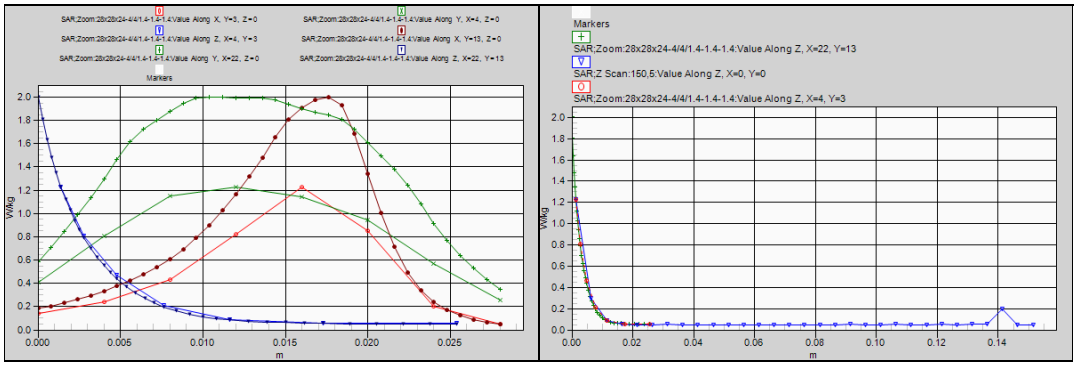
EUT: AeroDR SYSTEM; Type: AeroDR P-31; Serial: C1-35
Communication System: IEEE 802.11a(6Mbps, BPSK/OFDM); Frequency: 5745 MHz; Crest Factor: 1.0
Medium: HSL5800_head; Medium parameters used: f = 5745 MHz; σ = 5.341 S/m; ε_r = 34.14; ρ = 1000 kg/m^3
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration: -Probe: EX3DV4 - SN3679; ConvF(4.19, 4.19, 4.19); Calibrated: 2012/06/21;
-Sensor-Surface: 1.4mm (Mechanical Surface Detection), z = 1.0, 25.0, 151.0 -Electronics: DAE4 Sn626; Calibrated: 2013/03/11
-Phantom: ELI v4.0; Type: QDOVA001BA; Serial: 1059; Phantom section: Flat Section
-DASY52 52.8.2(969); SEMCAD X 14.6.6(6824)

portable,near-body,w58/h58-7,ant=main,frt&d=0mm,11a(6m),h5745/
Area Scan:80x90,10 (9x10x1): Measurement grid: dx=10mm, dy=10mm; Maximum value of SAR (measured) = 1.07 W/kg
Area Scan:80x90,10 (81x91x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm; Maximum value of SAR (interpolated) = 1.20 W/kg
Z Scan:150,5 (1x1x31): Measurement grid: dx=20mm, dy=20mm, dz=5mm; Maximum value of SAR (measured) = 1.23 W/kg

Zoom:28x28x24-4/4/1.4-1.4-1.4 (8x8x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm;
Reference Value = 15.905 V/m; Power Drift = 0.02 dB, Maximum value of SAR (measured) = 1.23 W/kg
Peak SAR (extrapolated) = 2.004 mW/g
SAR(1 g) = 0.504 mW/g; SAR(10 g) = 0.174 mW/g





Remarks: *. Date tested: 2013/04/05; Tested by: Hiroshi Naka; Tested place:No.7 shielded room,
*.liquid depth: 143mm; Position: distance of EUT to phantom: 0mm (2mm to liquid); ambient: 24.5 ± 0.5deg.C. / 50 ± 5 %RH,
*.liquid temperature: 23.9(start)/23.9(end)/23.7(in check) deg.C.; *.White cubic: zoom scan area, Red cubic: big=SAR(10g)/small=SAR(1g)

Appendix 2-7: Measurement data (5745-5825MHz, W58 band) / Head liquid (cont'd)
Step 2c: Change the channels (cont'd)

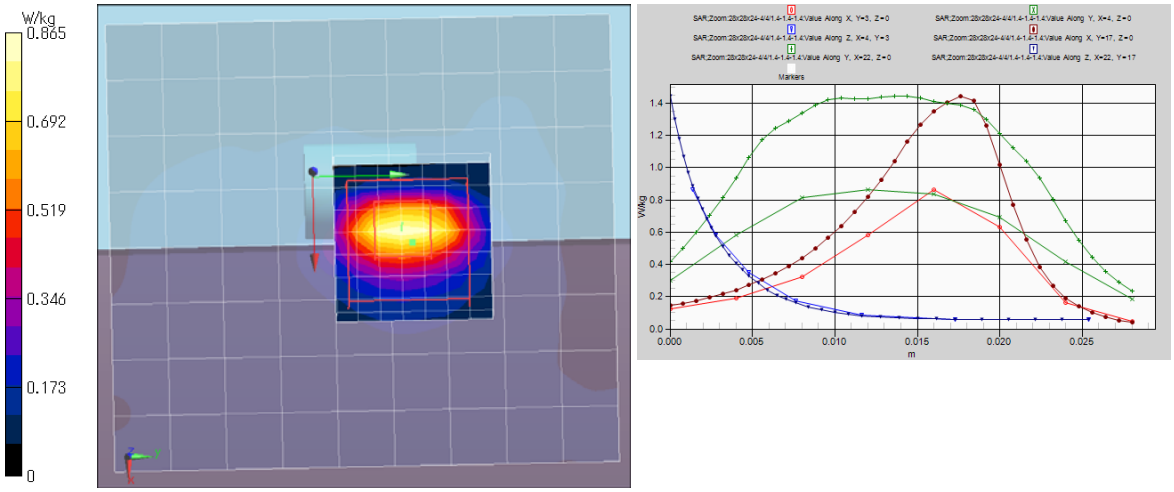
Step 2c-2: 5785MHz (157ch) / Main antenna, Front (Patient side) and touch, 11a (6Mbps)

EUT: AeroDR SYSTEM; Type: AeroDR P-31; Serial: C1-35
Communication System: IEEE 802.11a(6Mbps, BPSK/OFDM); Frequency: 5785 MHz; Crest Factor: 1.0
Medium: HSL5800_head; Medium parameters used: f = 5785 MHz; σ = 5.38 S/m; ε_r = 33.97; ρ = 1000 kg/m^3
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration: -Probe: EX3DV4 - SN3679; ConvF(4.19, 4.19, 4.19); Calibrated: 2012/06/21;
-Sensor-Surface: 1.4mm (Mechanical Surface Detection), z = 1.0, 25.0, 151.0 -Electronics: DAE4 Sn626; Calibrated: 2013/03/11
-Phantom: ELI v4.0; Type: QDOVA001BA; Serial: 1059; Phantom section: Flat Section
-DASY52 52.8.2(969); SEMCAD X 14.6.6(6824)

portable,near-body,w58/h58-6,ant=main,frt&d=0mm,11a(6m),h5785/
Area Scan:80x90,10 (9x10x1): Measurement grid: dx=10mm, dy=10mm; Maximum value of SAR (measured) = 0.762 W/kg
Area Scan:80x90,10 (81x91x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm; Maximum value of SAR (interpolated) = 0.870 W/kg
Z Scan:150,5 (1x1x31): Measurement grid: dx=20mm, dy=20mm, dz=5mm; Maximum value of SAR (measured) = 0.879 W/kg

Zoom:28x28x24-4/4/1.4-1.4-1.4 (8x8x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm;
Reference Value = 13.409 V/m; Power Drift = 0.04 dB, Maximum value of SAR (measured) = 0.865 W/kg
Peak SAR (extrapolated) = 1.447 mW/g
SAR(1 g) = 0.375 mW/g; SAR(10 g) = 0.145 mW/g



Remarks: *. Date tested: 2013/04/05; Tested by: Hiroshi Naka; Tested place:No.7 shielded room,
*.liquid depth: 143mm; Position: distance of EUT to phantom: 0mm (2mm to liquid); ambient: 24.5 ± 0.5deg.C. / 50 ± 5 %RH,
*.liquid temperature: 23.8(start)/23.9(end)/23.7(in check) deg.C.; *.White cubic: zoom scan area, Red cubic: big=SAR(10g)/small=SAR(1g)

Appendix 2-7: Measurement data (5745-5825MHz, W58 band) / Head liquid (cont'd)
Step 2c: Change the channels (cont'd)

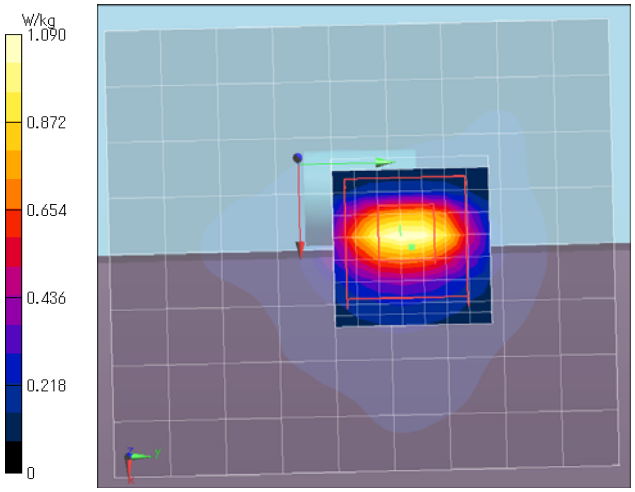
Step 2c-3: 5825MHz (165ch) / Main antenna, Front (Patient side) and touch, 11a (6Mbps)

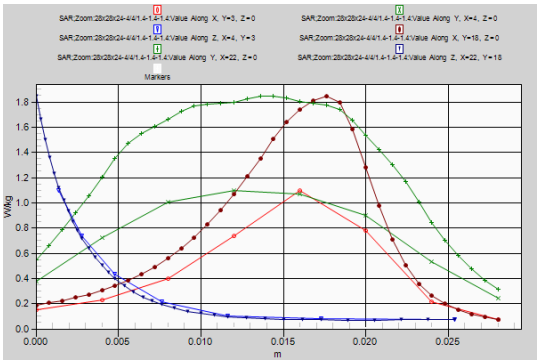
EUT: AeroDR SYSTEM; Type: AeroDR P-31; Serial: C1-35
Communication System: IEEE 802.11a(6Mbps, BPSK/OFDM); Frequency: 5825 MHz; Crest Factor: 1.0
Medium: HSL5800_head; Medium parameters used: f = 5825 MHz; σ = 5.421 S/m; ε_r = 33.81; ρ = 1000 kg/m^3
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration: -Probe: EX3DV4 - SN3679; ConvF(4.19, 4.19, 4.19); Calibrated: 2012/06/21;
-Sensor-Surface: 1.4mm (Mechanical Surface Detection), z = 1.0, 25.0, 151.0 -Electronics: DAE4 Sn626; Calibrated: 2013/03/11
-Phantom: ELI v4.0; Type: QDOVA001BA; Serial: 1059; Phantom section: Flat Section
-DASY52 52.8.2(969); SEMCAD X 14.6.6(6824)

portable,near-body,w58/h58-5,ant=main,frt&d=0mm,11a(6m),h5825/
Area Scan:80x90,10 (9x10x1): Measurement grid: dx=10mm, dy=10mm; Maximum value of SAR (measured) = 0.952 W/kg
Area Scan:80x90,10 (81x91x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm; Maximum value of SAR (interpolated) = 1.07 W/kg
Z Scan:150,5 (1x1x31): Measurement grid: dx=20mm, dy=20mm, dz=5mm; Maximum value of SAR (measured) = 1.10 W/kg

Zoom:28x28x24-4/4/1.4-1.4-1.4 (8x8x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm;
Reference Value = 15.087 V/m; Power Drift = -0.03 dB, Maximum value of SAR (measured) = 1.09 W/kg
Peak SAR (extrapolated) = 1.849 mW/g
SAR(1 g) = 0.469 mW/g; SAR(10 g) = 0.180 mW/g





Remarks: *. Date tested: 2013/04/05; Tested by: Hiroshi Naka; Tested place:No.7 shielded room,
*.liquid depth: 143mm; Position: distance of EUT to phantom: 0mm (2mm to liquid); ambient: 24.5 ± 0.5deg.C. / 50 ± 5 %RH,
*.liquid temperature: 23.8(start)/23.8(end)/23.7(in check) deg.C.; *.White cubic: zoom scan area, Red cubic: big=SAR(10g)/small=SAR(1g)

Appendix 2-7: Measurement data (5745-5825MHz, W58 band) / Head liquid (cont'd)
Step 2c: Change the channels (cont'd)

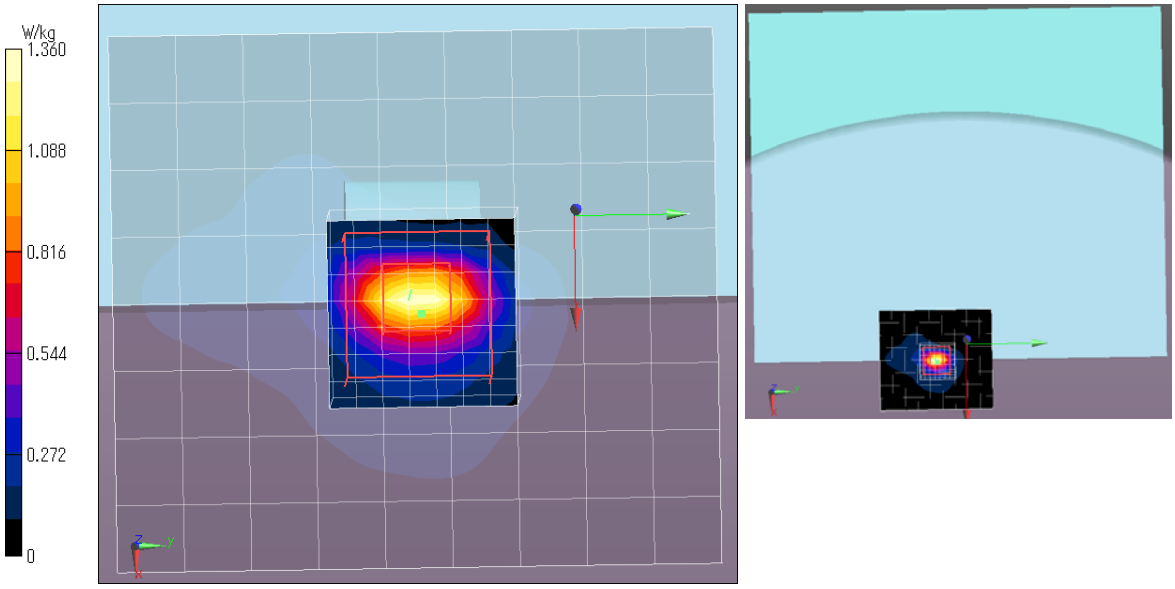
Step 2c-4: 5745MHz (149ch) / Sub antenna, Front (Patient side) and touch, 11a (6Mbps)
->Worst reported SAR(1g) of the Sub antenna in 5745-5825MHz (W58) band

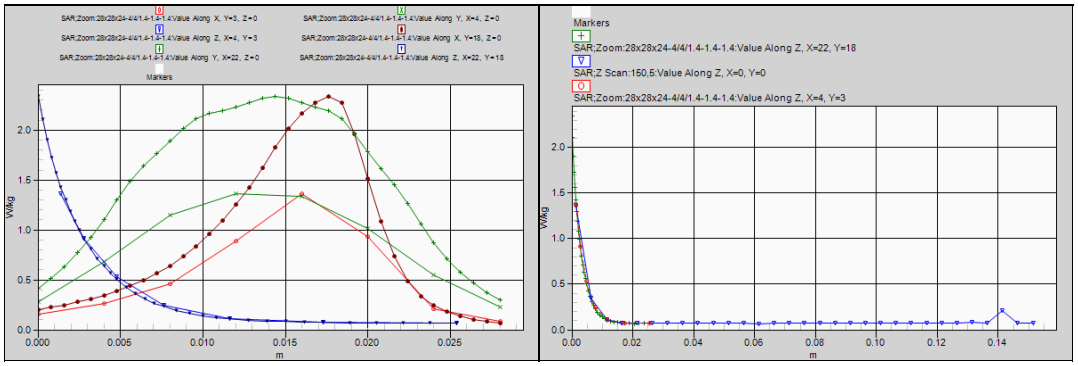
EUT: AeroDR SYSTEM; Type: AeroDR P-31; Serial: C1-35
Communication System: IEEE 802.11a(6Mbps, BPSK/OFDM); Frequency: 5745 MHz; Crest Factor: 1.0
Medium: HSL5800_head; Medium parameters used: f = 5745 MHz; σ = 5.341 S/m; ε_r = 34.14; ρ = 1000 kg/m^3
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration: -Probe: EX3DV4 - SN3679; ConvF(4.19, 4.19, 4.19); Calibrated: 2012/06/21;
-Sensor-Surface: 1.4mm (Mechanical Surface Detection), z = 1.0, 25.0, 151.0 -Electronics: DAE4 Sn626; Calibrated: 2013/03/11
-Phantom: ELI v4.0; Type: QDOVA001BA; Serial: 1059; Phantom section: Flat Section
-DASY52 52.8.2(969); SEMCAD X 14.6.6(6824)

portable,near-body,w58/h58-3,ant=sub,frt&d=0mm,11a(6m),h5745/
Area Scan:80x90,10 (9x10x1): Measurement grid: dx=10mm, dy=10mm; Maximum value of SAR (measured) = 1.25 W/kg
Area Scan:80x90,10 (81x91x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm; Maximum value of SAR (interpolated) = 1.66 W/kg
Z Scan:150,5 (1x1x31): Measurement grid: dx=20mm, dy=20mm, dz=5mm; Maximum value of SAR (measured) = 1.37 W/kg

Zoom:28x28x24-4/4/1.4-1.4-1.4 (8x8x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm;
Reference Value = 16.988 V/m; Power Drift = -0.02 dB, Maximum value of SAR (measured) = 1.36 W/kg
Peak SAR (extrapolated) = 2.342 mW/g
SAR(1 g) = 0.563 mW/g; SAR(10 g) = 0.195 mW/g





Remarks: *. Date tested: 2013/04/05; Tested by: Hiroshi Naka; Tested place:No.7 shielded room,
*.liquid depth: 143mm; Position: distance of EUT to phantom: 0mm (2mm to liquid); ambient: 24.5 ± 0.5deg.C. / 50 ± 5 %RH,
*.liquid temperature: 23.7(start)/23.8(end)/23.7(in check) deg.C.; *.White cubic: zoom scan area, Red cubic: big=SAR(10g)/small=SAR(1g)

Appendix 2-7: Measurement data (5745-5825MHz, W58 band) / Head liquid (cont'd)
Step 2c: Change the channels (cont'd)

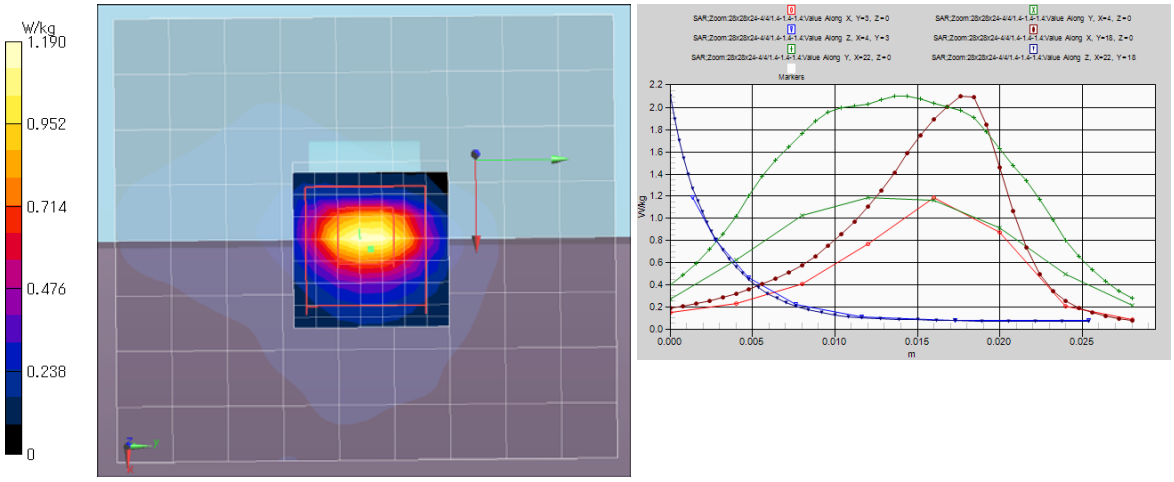
Step 2c-5: 5785MHz (157ch) / Sub antenna, Front (Patient side) and touch, 11a (6Mbps)

EUT: AeroDR SYSTEM; Type: AeroDR P-31; Serial: C1-35
Communication System: IEEE 802.11a(6Mbps, BPSK/OFDM); Frequency: 5785 MHz; Crest Factor: 1.0
Medium: HSL5800_head; Medium parameters used: f = 5785 MHz; σ = 5.38 S/m; ε_r = 33.97; ρ = 1000 kg/m^3
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration: -Probe: EX3DV4 - SN3679; ConvF(4.19, 4.19, 4.19); Calibrated: 2012/06/21;
-Sensor-Surface: 1.4mm (Mechanical Surface Detection), z = 1.0, 25.0, 151.0 -Electronics: DAE4 Sn626; Calibrated: 2013/03/11
-Phantom: ELI v4.0; Type: QDOVA001BA; Serial: 1059; Phantom section: Flat Section
-DASY52 52.8.2(969); SEMCAD X 14.6.6(6824)

portable,near-body,w58/h58-2,ant=sub,frt&d=0mm,11a(6m),h5785/
Area Scan:80x90,10 (9x10x1): Measurement grid: dx=10mm, dy=10mm; Maximum value of SAR (measured) = 1.10 W/kg
Area Scan:80x90,10 (81x91x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm; Maximum value of SAR (interpolated) = 1.46 W/kg
Z Scan:150,5 (1x1x31): Measurement grid: dx=20mm, dy=20mm, dz=5mm; Maximum value of SAR (measured) = 1.19 W/kg

Zoom:28x28x24-4/4/1.4-1.4-1.4 (8x8x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm;
Reference Value = 15.784 V/m; Power Drift = -0.01 dB, Maximum value of SAR (measured) = 1.19 W/kg
Peak SAR (extrapolated) = 2.108 mW/g
SAR(1 g) = 0.504 mW/g; SAR(10 g) = 0.182 mW/g



Remarks: *. Date tested: 2013/04/05; Tested by: Hiroshi Naka; Tested place:No.7 shielded room,
*.liquid depth: 143mm; Position: distance of EUT to phantom: 0mm (2mm to liquid); ambient: 24.5 ± 0.5deg.C. / 50 ± 5 %RH,
*.liquid temperature: 23.6(start)/23.7(end)/23.7(in check) deg.C.; *.White cubic: zoom scan area, Red cubic: big=SAR(10g)/small=SAR(1g)

Appendix 2-7: Measurement data (5745-5825MHz, W58 band) / Head liquid (cont'd)
Step 2c: Change the channels (cont'd)

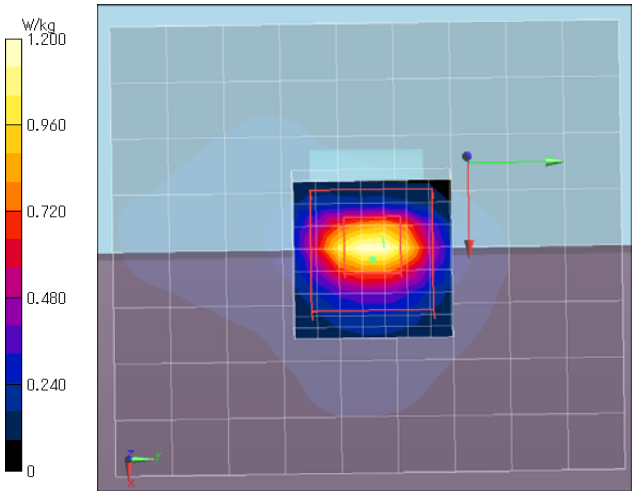
Step 2c-6: 5825MHz (165ch) / Sub antenna, Front (Patient side) and touch, 11a (6Mbps)

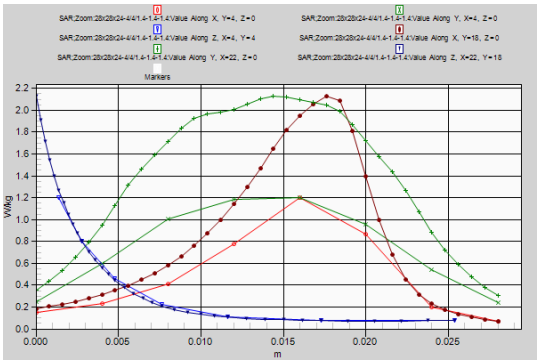
EUT: AeroDR SYSTEM; Type: AeroDR P-31; Serial: C1-35
Communication System: IEEE 802.11a(6Mbps, BPSK/OFDM); Frequency: 5825 MHz; Crest Factor: 1.0
Medium: HSL5800_head; Medium parameters used: f = 5825 MHz; σ = 5.421 S/m; ε_r = 33.81; ρ = 1000 kg/m^3
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration: -Probe: EX3DV4 - SN3679; ConvF(4.19, 4.19, 4.19); Calibrated: 2012/06/21;
-Sensor-Surface: 1.4mm (Mechanical Surface Detection), z = 1.0, 25.0, 151.0 -Electronics: DAE4 Sn626; Calibrated: 2013/03/11
-Phantom: ELI v4.0; Type: QDOVA001BA; Serial: 1059; Phantom section: Flat Section
-DASY52 52.8.2(969); SEMCAD X 14.6.6(6824)

portable,near-body,w58/h58-4(re#1),ant=sub,frt&d=0mm,11a(6m),h5825/
Area Scan:80x90,10 (9x10x1): Measurement grid: dx=10mm, dy=10mm; Maximum value of SAR (measured) = 1.13 W/kg
Area Scan:80x90,10 (81x91x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm; Maximum value of SAR (interpolated) = 1.48 W/kg
Z Scan:150,5 (1x1x31): Measurement grid: dx=20mm, dy=20mm, dz=5mm; Maximum value of SAR (measured) = 1.20 W/kg

Zoom:28x28x24-4/4/1.4-1.4-1.4 (8x8x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm;
Reference Value = 15.808 V/m; Power Drift = 0.01 dB, Maximum value of SAR (measured) = 1.20 W/kg
Peak SAR (extrapolated) = 2.132 mW/g
SAR(1 g) = 0.505 mW/g; SAR(10 g) = 0.182 mW/g





Remarks: *. Date tested: 2013/04/05; Tested by: Hiroshi Naka; Tested place:No.7 shielded room,
*.liquid depth: 143mm; Position: distance of EUT to phantom: 0mm (2mm to liquid); ambient: 24.5 ± 0.5deg.C. / 50 ± 5 %RH,
*.liquid temperature: 23.8(start)/23.8(end)/23.7(in check) deg.C.; *.White cubic: zoom scan area, Red cubic: big=SAR(10g)/small=SAR(1g)

APPENDIX 3: Test instruments

Appendix 3-1: Equipment used

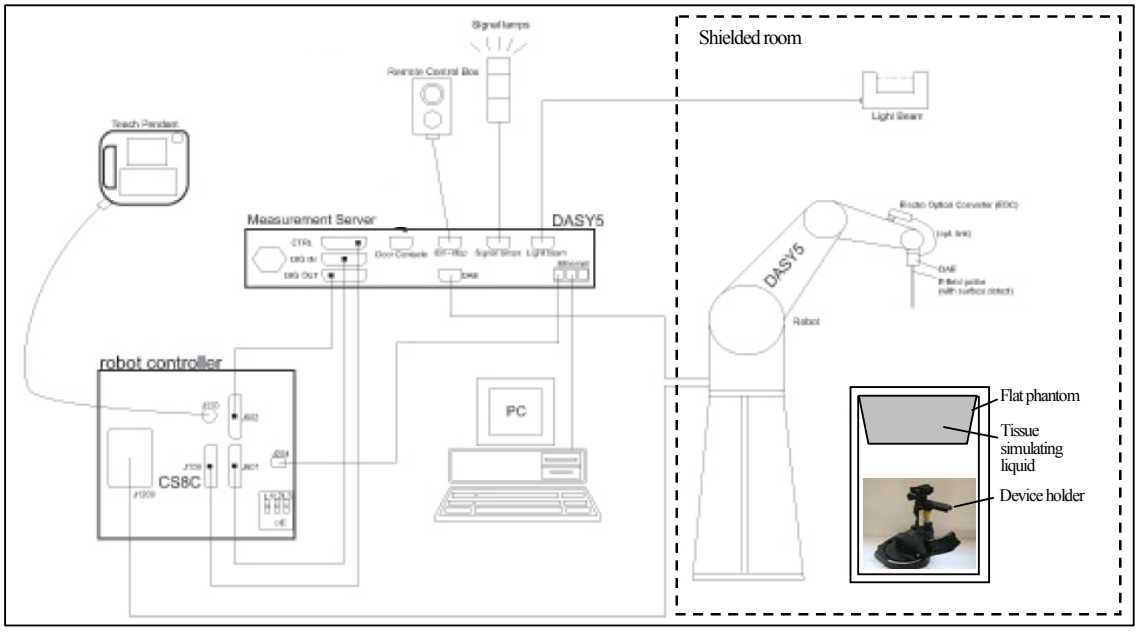
Control No.	Instrument	Manufacturer	Model No	Serial No	Test Item	Calibration Date * Interval(month)
COTS-SSAR-02	DASY52	Schmid&Partner Engineering AG	DASY52 V8.2 B969	-	SAR	-
COTS-KSEP-01	Dielectric measurement	Agilent	85070	1	SAR	-
SSAR-02	SAR measurement system	Schmid&Partner Engineering AG	DASY5	1324	SAR	Pre Check
SSRBT-02	SAR robot	Schmid&Partner Engineering AG	TX60 Lspeag	F12/5L2QA1/A/01	SAR	2012/09/24 * 12
KDAE-01	Data Acquisition Electronics	Schmid&Partner Engineering AG	DAE4	626	SAR	2013/03/11 * 12
KPB-01	Dosimetric E-Field Probe	Schmid&Partner Engineering AG	EX3DV4	3679	SAR	2012/06/21 * 12
KSDA-02	Dipole Antenna	Schmid&Partner Engineering AG	D5GHzV2	1070	SAR(daily)	2013/03/14 * 12
KPFL-01	Flat Phantom	Schmid&Partner Engineering AG	Oval flat phantom ELI 4.0	1059	SAR	2012/10/31 * 12
SSNA-01	Network Analyzer	Agilent	8753ES	US39171777	SAR	2012/12/29 * 12
KEPP-01	Dielectric probe	Agilent	85070E/8710-2036	2540	SAR	2013/03/05 * 12
KSG-08	Signal Generator	Rohde & Schwarz	SMT06	100763	SAR(daily)	2012/06/26 * 12
KPA-12	RF Power Amplifier	MILMEGA	AS2560-50	1018582	SAR(daily)	Pre Check
KCPL-07	Directional Coupler	Pulsar Microwave Corp.	CCS30-B26	0621	SAR(daily)	Pre Check
KPM-06	Power Meter	Rohde & Schwarz	NRVD	101599	SAR(daily)	2012/09/13 * 12
KIU-08	Power sensor	Rohde & Schwarz	NRV-Z4	100372	SAR(daily)	2012/09/13 * 12
KIU-09	Power sensor	Rohde & Schwarz	NRV-Z4	100371	SAR(daily)	2012/09/13 * 12
KAT10-P1	Attenuator	Weinschel	24-10-34	BY5927	SAR(daily)	2013/02/27 * 12
KAT20-P1	Attenuator	TME	SFA-01AXPJ-20	-	SAR(daily)	2013/02/19 * 12
KRU-04	Ruler(300mm)	Shinwa	13134	-	SAR(daily)	2012/05/29 * 12
KRU-05	Ruler(100x50mm,L)	Shinwa	12101	-	SAR(daily)	2012/05/29 * 12
KOS-13	Digtal thermometer	HANNA	Checktemp-2	KOS-13	SAR	2013/01/31 * 12
KOS-14	Thermo-Hygrometer data logger	SATO KEIRYOKI	SK-L200THIIα / SK-LTHIIα-2	015246/08169	SAR	2013/01/31 * 12
SOS-11	Humidity Indicator	A&D	AD-5681	4063424	SAR	2013/02/27 * 12
SSA-04	Spectrum Analyzer	Advantest	R3272	101100994	SAR(moni.)	2012/12/17 * 12
SWTR-03	DI water	MonotaRo	34557433	-	SAR(daily)	Pre Check
KSLM580-02	Tissue simulation liqud (5800MHz,body)	Schmid&Partner Engineering AG	SL AAM 501 AB	110520-3	SAR	(Daily check) Target value ±5%
KSLH580-03	Tissue simulation liqud (5800MHz,head)	Schmid&Partner Engineering AG	SL AAH 501 AA-B	-	SAR	(Daily check) Target value ±5%
No.7 Shielded room	SAR shielded room (2.76m(W)x3.76m(D)x2.4m(H))	TDK	-	-	SAR	*(Daily check) Ambient noise: < 12mW/kg*

The expiration date of calibration is the end of the expired month.
As for some calibrations performed after the tested dates, those test equipment have been controlled by means of an unbroken chains of calibrations.
All equipment is calibrated with valid calibrations. Each measurement data is traceable to the national or international standards.

[Test Item] SAR: Specific Absorption Rate, Ant.pwr: Antenna terminal conducted power

Appendix 3-2: Configuration and peripherals

These measurements were performed with the automated near-field scanning system DASY5 from Schmid & Partner Engineering AG (SPEAG). The system is based on a high precision robot), which positions the probes with a positional repeatability of better than ± 0.02 mm. Special E- and H-field probes have been developed for measurements close to material discontinuity, the sensors of which are directly loaded with a Schottky diode and connected via highly resistive lines to the data acquisition unit. The SAR measurements were conducted with the dosimetry probes EX3DV4 (manufactured by SPEAG), designed in the classical triangular configuration and optimized for dosimetric evaluation.



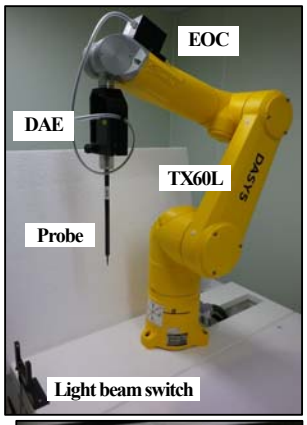
The DASY5 system for performing compliance tests consist of the following items:

1	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).
2	An isotropic field probe optimized and calibrated for the targeted measurement.
3	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.
4	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.
5	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.
6	The Light Beam used is for probe alignment. This improves the (absolute) accuracy of the probe positioning.
7	A computer running Win7 professional operating system and the DASY5 software.
8	R Remote control and teach pendant as well as additional circuitry for robot safety such as warning lamps, etc.
9	The phantom.
10	The device holder for EUT. (low-loss dielectric palette) (*. when it was used.)
11	Tissue simulating liquid mixed according to the given recipes.
12	Validation dipole kits allowing to validate the proper functioning of the system.

Appendix 3-3: Test system specification

TX60 Lsepag robot/CS8Csepag-TX60 robot controller

•Number of Axes : 6 •Repeatability : ±0.02mm
•Manufacture : Stäubli Unimation Corp.



DASY5 Measurement server

•Features : The DASY5 measurement server is based on a PC/104 CPU board with a 400MHz intel ULV Celeron, 128MB chip-disk and 128MB RAM. The necessary circuits for communication with the DAE4 electronics box, as well as the 16 bit AD converter system for optical detection and digital I/O interface are contained on the DASY5 I/O board, which is directly connected to the PC/104 bus of the CPU board.
•Calibration : No calibration required.
•Manufacture : Schmid & Partner Engineering AG

Data Acquisition Electronic (DAE)

•Features : Signal amplifier, multiplexer, A/D converter and control logic. Serial optical link for communication with DASY5 embedded system (fully remote controlled). 2 step probe touch detector for mechanical surface detection and emergency robot stop (not in -R version)
•Measurement Range : 1µV to > 200mV (16bit resolution and 2 range settings: 4mV, 400mV)
•Input Offset voltage : < 1µV (with auto zero)
•Input Resistance : 200MΩ
•Battery Power : > 10hr of operation (with two 9V battery)
•Manufacture : Schmid & Partner Engineering AG

Electro-Optical Converter (EOC61)

•Manufacture : Schmid & Partner Engineering AG

Light Beam Switch (LB5/80)

•Manufacture : Schmid & Partner Engineering AG

SAR measurement software

•Item : Dosimetric Assessment System DASY5
•Software version : DASY52, V8.2 B969
•Manufacture : Schmid & Partner Engineering AG

E-Field Probe

•Model : **EX3DV4 (serial number: 3679)**
•Construction : Symmetrical design with triangular core.
Built-in shielding against static charges.
PEEK enclosure material (resistant to organic solvents, e.g., DGBE).
•Frequency : 10MHz to 6GHz, Linearity: ±0.2 dB (30MHz to 6GHz)
•Conversion Factors : 2450, 5200, 5300, 5500, 5600, 5800MHz (Head and Body)
•Directivity : ±0.3 dB in HSL (rotation around probe axis)
±0.5 dB in tissue material (rotation normal to probe axis)
•Dynamic Range : 10µW/g to > 100 mW/g; Linearity: ±0.2 dB (noise: typically < 1µW/g)
•Dimension : Overall length: 330mm (Tip: 20mm)
Tip diameter: 2.5mm (Body: 12mm)
Typical distance from probe tip to dipole centers: 1mm
•Application : High precision dosimetric measurement in any exposure scenario (e.g., very strong gradient fields). Only probe which enables compliance testing for frequencies up to 6GHz with precision of better 30%.
•Manufacture : Schmid & Partner Engineering AG

Phantom

•Type : **ELI 4.0 oval flat phantom**
•Shell Material : Fiberglass •Shell Thickness : Bottom plate: 2 ±0.2mm
•Dimensions : Bottom elliptical: 600×400mm, Depth: 190mm (Volume: Approx. 30 liters)
•Manufacture : Schmid & Partner Engineering AG

Device Holder

☒ Urethane foam
☐ KSDH-01: In combination with the ELI4, the Mounting Device enables the rotation of the mounted transmitter device in spherical coordinates. Transmitter devices can be easily and accurately positioned. The low-loss dielectric urethane foam was used for the mounting section of device holder.
•Material : POM •Manufacture : Schmid & Partner Engineering AG

Appendix 3-4: Simulated tissue composition and parameter confirmation

Liquid type	Head, HSL 5000	Body, MBBL 3500-5800V5
M/N / Control No.	SL AAH 501 AA-B / KSLH580-03	SL AAM 501 AB / KSLM580-02
Ingredient	Mixture (%)	Mixture (%)
Water	60-80 %	60-80 %
$C_8H_{18}O_3$ (DGBE) (Diethylene glycol monobutyl ether)	20-40 %	20-40 %
NaCl	0-1.5 %	0-1.5 %
Manufacture	Schmid&Partner Engineering AG	Schmid&Partner Engineering AG

*. The dielectric parameters were checked prior to assessment using the 85070E dielectric probe kit.

Dielectric parameter measurement results

Date	Freq. [MHz]	Ambient Temp [deg.C.]	Ambient Humidity [%RH]	Liq.T.[deg.C.] Before	Liq.T.[deg.C.] After	Liquid Depth [mm]	Parameters Relative permittivity: εr Conductivity: σ	Target value #1:Std. (*1)	Target value #2:Cal. (*2)	Measured	ΔSAR (1g) [%] (*3)	Deviation for #1 (Std.)[%]	Limit [%]	Deviation for #2 (Cal.)[%]	Limit [%] (*2)
April 1, 2013	5200	24.3	35	23.4	23.4	(130)	εr [-] / Body	**49.01**	**47.0**	47.36	(+0.61)	**-3.4**	±5	**+0.8**	±6
							σ [S/m] /Body	**5.299**	**5.42**	5.439		**+2.7**	±5	**+0.4**	±6
	5500						εr [-] / Body	**48.61**	**46.5**	46.86	(+0.61)	**-3.6**	±5	**+0.8**	±6
							σ [S/m] /Body	**5.650**	**5.80**	5.870		**+3.9**	±5	**+1.2**	±6
April 2, 2013	5500	24.4	43	24.5	24.5	(131)	εr [-] / Body	**48.61**	**46.5**	47.19	(+0.41)	**-2.9**	±5	**+1.5**	±6
							σ [S/m] /Body	**5.650**	**5.80**	5.882		**+4.1**	±5	**+1.4**	±6
	5800						εr [-] / Body	**48.2**	**46.1**	46.71	(+0.42)	**-3.1**	±5	**+1.3**	±6
							σ [S/m] /Body	**6.00**	**6.21**	6.256		**+4.3**	±5	**+0.7**	±6
April 3, 2013	5200	24.9	50	24.7	24.7	(145)	εr [-] / Head	**35.99**	**34.4**	36.24	**-0.15**	**+0.7**	±5	**+5.3**	±6
							σ [S/m] /Head	**4.655**	**4.53**	4.683		**+0.6**	±5	**+3.6**	±6
April 4, 2013	5500	24.3	44	23.4	23.4	(144)	εr [-] / Head	**35.64**	**34.0**	35.80	**-0.14**	**+0.4**	±5	**+5.3**	±6
							σ [S/m] /Head	**4.963**	**4.80**	5.031		**+1.4**	±5	**+4.8**	±6
April 5, 2013	5800	24.3	50	23.7	23.7	(143)	εr [-] / Head	**35.3**	**33.6**	34.00	**+0.65**	**-3.7**	±5	**+1.2**	±6
							σ [S/m] /Head	**5.27**	**5.11**	5.367		**+1.9**	±5	**+5.0**	±6

*1. The target value is a parameter defined in OET65, Supplement C.

*2. The target value is a parameter defined in the calibration data sheet of D5GHzV2 (sn:1070) dipole calibrated by Schmid & Partner Engineering AG (Certification No. D5GHzV2-1070_Mar13, the data sheet was filed in this report.).

*3. ΔSAR correction was only applied to head simulated tissue.

ΔSAR(1g)= Cεr ×Δεr + Cσ ×Δσ, $C\varepsilon r = -7.854E\text{-}4\times f^3 + 9.402E\text{-}3\times f^2 - 2.742E\text{-}2\times f - 0.2026$ / $C\sigma = 9.804E\text{-}3\times f^3 - 8.661E\text{-}2\times f^2 + 2.981E\text{-}2\times f + 0.7829$

Decision on Simulated Tissues of 5GHz band; In the current standards (e.g., IEEE 1528, OET 65 Supplement C), the dielectric parameters suggested for head and body tissue simulating liquid are given at 3000 and 5800MHz. As an intermediate solution, dielectric parameters for the frequencies between 3000-5800MHz were obtained using linear interpolation. Furthermore, dielectric parameters for the frequencies above 5800MHz were obtained using linear extrapolation.

Standard				
f (MHz)	Head Liquid		Body Liquid	
	εr	σ [S/m]	εr	σ [S/m]
3000	**38.5**	**2.40**	**52.0**	**2.73**
5800	**35.3**	**5.27**	**48.2**	**6.00**
Interpolated & Extrapolated				
5180	*36.01*	*4.635*	*49.04*	*5.276*
5200	*35.99*	*4.655*	*49.01*	*5.299*
5220	*35.96*	*4.676*	*48.99*	*5.323*
5240	*35.94*	*4.696*	*48.96*	*5.346*
5260	*35.92*	*4.717*	*48.93*	*5.369*
5280	*35.89*	*4.737*	*48.91*	*5.393*
5320	*35.85*	*4.778*	*48.85*	*5.439*

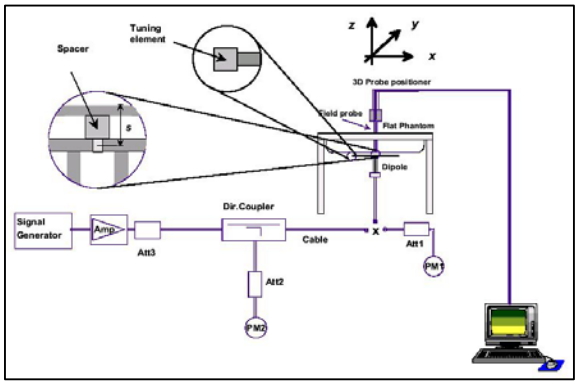
Interpolated & Extrapolated				
f (MHz)	Head Liquid		Body Liquid	
	εr	σ [S/m]	εr	σ [S/m]
5500	*35.64*	*4.963*	*48.61*	*5.650*
5520	*35.62*	*4.983*	*48.58*	*5.673*
5580	*35.55*	*5.045*	*48.50*	*5.743*
5620	*35.51*	*5.086*	*48.44*	*5.790*
5680	*35.44*	*5.147*	*48.36*	*5.860*
5700	*35.41*	*5.168*	*48.34*	*5.883*
5745	*35.36*	*5.214*	*48.27*	*5.936*
5785	*35.32*	*5.255*	*48.22*	*5.982*
5825	*35.27*	*5.296*	*48.17*	*6.029*

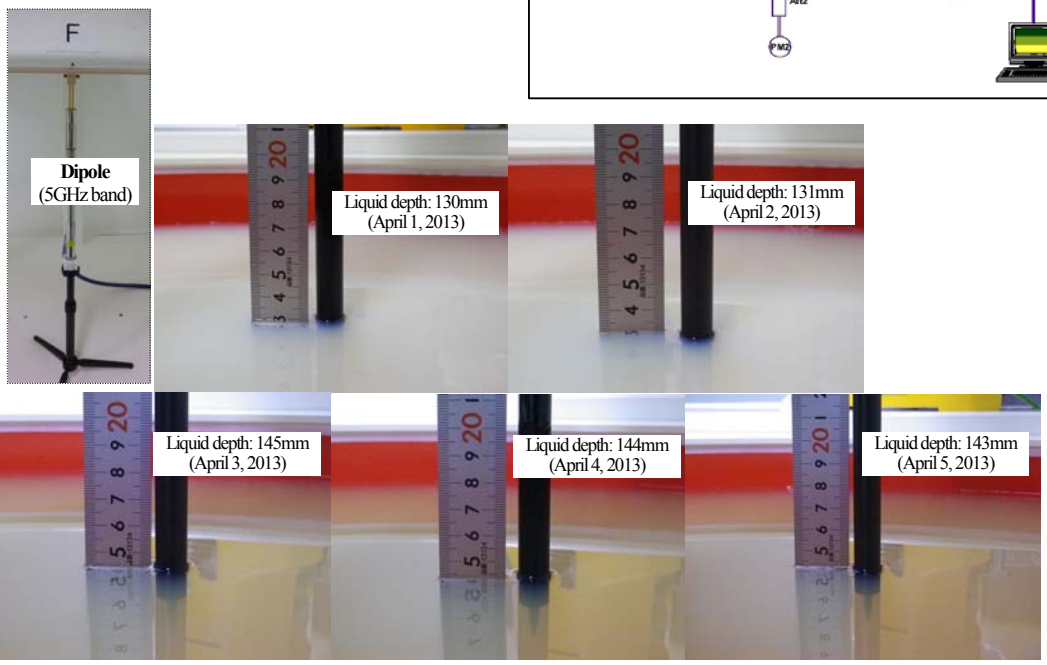
Appendix 3-5: Daily check data

Prior to the SAR assessment of EUT, the system validation kit was used to test whether the system was operating within its specifications of ±10%. The Daily check results are in the table below. (*. Refer to Appendix 3-7 of measurement data.)

Daily check results															
Date	Freq. [MHz]	Liquid Type	Ambient		Liquid Temp. [deg.C.]			Liquid Depth [mm]	εr [-] measured	σ [S/m] measured	Power drift [dB]	Daily check target & measured			
			Temp [deg.C.]	Humidity [%RH]	Check	Before	After					SAR 1g [W/kg] Target	SAR 1g [W/kg] Measured (*3)	Deviation [%]	Limit [%]
April 1, 2013	5200	Body	24.9	36	23.4	22.8	22.9	130	47.36	5.439	0.01	**7.41**(*1)	**7.64** (at 100mW) (ΔSAR corrected: -)	**+3.1**	±10
	5500	Body	24.9	36	23.4	22.9	23.0	130	46.86	5.870	0.05	**7.92**(*1)	**7.97** (at 100mW) (ΔSAR corrected: -)	**+0.6**	±10
April 2, 2013	5500	Body	24.6	44	24.5	23.9	23.7	131	47.19	5.882	-0.02	**7.92**(*1)	**8.05** (at 100mW) (ΔSAR corrected: -)	**+1.6**	±10
	5800	Body	24.9	45	24.5	23.7	23.6	131	46.71	6.256	-0.01	**7.39**(*1)	**7.25** (at 100mW) (ΔSAR corrected: -)	**-1.9**	±10
April 3, 2013	5200	Head	24.6	52	24.7	24.9	24.8	145	36.24	4.683	0.02	**78.9**(*1)	**83.9** (*4)	**+6.4**	±10
												(76.5)(*2)	8.38 (at 250mW)=> ΔSAR corrected:**8.39**	(+9.7)	(±10)
April 4, 2013	5500	Head	24.9	44	23.4	23.5	23.4	144	35.80	5.031	-0.06	**84.3**(*1)	**83.1** (*4)	**-1.4**	±10
												(83.3)(*2)	8.3 (at 100mW)=> ΔSAR corrected:**8.31**	(-0.2)	(±10)
April 5, 2013	5800	Head	24.9	50	23.7	23.6	23.6	143	34.00	5.367	-0.06	**77.9**(*1)	**81.4** (*4)	**+4.5**	±10
												(78)(*2)	8.19 (at 100mW)=> ΔSAR corrected:**8.14**	(+4.3)	(±10)

*1. The target value (calibrated value) is a parameter defined in the calibration data sheet of D5GHzV2 (sn:1070) dipole calibrated by Schmid & Partner Engineering AG (Certification No. D5GHzV2-1070_Mar13, the data sheet was filed in this report).
*2. The target value is defined in IEC 62209-2.
*3. ΔSAR correction was only applied to head simulated tissue.
*4. The measurement SAR value (with ΔSAR corrected) was normalized to 1W forward power.





Test setup for the system performance check

Appendix 3-6: Daily check uncertainty

Uncertainty of system daily check (~6GHz) (Body liquid, 2.4-6GHz, ε', σ: ≤5%) (v06)	1g SAR	10g SAR
Combined measurement uncertainty of the measurement system (k=1)	± 12.7 %	± 12.4 %
Expanded uncertainty (k=2)	± 25.4 %	± 24.8 %

	Error Description	Uncertainty Value	Probability distribution	Divisor	ci (1g)	ci (10g)	ui (1g)	ui (10g)	Vi, veff
A	**Measurement System** (DASY5)						(std. uncertainty)	(std. uncertainty)	
1	Probe Calibration Error (2.45,5.2,5.3,5.5,5.6,5.8GHz±100MHz)	±6.55 %	Normal	1	1	1	±6.55 %	±6.55 %	∞
2	Axial isotropy	±4.7 %	Rectangular	√3	0.7	0.7	±1.9 %	±1.9 %	∞
3	Hemispherical isotropy (*flat phantom, <5°)	±9.6 %	Rectangular	√3	0.7	0.7	±3.9 %	±3.9 %	∞
4	Boundary effects	±4.8 %	Rectangular	√3	1	1	±2.8 %	±2.8 %	∞
5	Probe linearity	±4.7 %	Rectangular	√3	1	1	±2.7 %	±2.7 %	∞
6	Probe modulation response (CW)	±0.0 %	Rectangular	√3	1	1	±0.0 %	±0.0 %	∞
7	System detection limit	±1.0 %	Rectangular	√3	1	1	±0.6 %	±0.6 %	∞
8	Response Time Error (<5ms/100ms wait)	±0.0 %	Rectangular	√3	1	1	±0.0 %	±0.0 %	∞
9	Integration Time Error (CW)	±0.0 %	Rectangular	√3	1	1	±0.0 %	±0.0 %	∞
10	System readout electronics (DAE)	±0.3 %	Normal	1	1	1	±0.3 %	±0.3 %	∞
11	RF ambient conditions-noise	±3.0 %	Rectangular	√3	1	1	±1.7 %	±1.7 %	∞
12	RF ambient conditions-reflections	±3.0 %	Rectangular	√3	1	1	±1.7 %	±1.7 %	∞
13	Probe positioner mechanical tolerance	±3.3 %	Rectangular	√3	1	1	±1.9 %	±1.9 %	∞
14	Probe positioning with respect to phantom shell	±6.7 %	Rectangular	√3	1	1	±3.9 %	±3.9 %	∞
15	Max.SAR evaluation	±4.0 %	Rectangular	√3	1	1	±2.3 %	±2.3 %	∞
B	**Test Sample Related**								
16	Deviation of the experimental source	±5.5 %	Normal	1	1	1	±5.5 %	±5.5 %	∞
17	Dipole to liquid distance (10mm±0.2mm,<2deg.)	±2.0 %	Rectangular	√3	1	1	±1.2 %	±1.2 %	∞
18	Drift of output power (measured, <0.2dB)	±2.5 %	Rectangular	√3	1	1	±1.4 %	±1.4 %	∞
C	**Phantom and Setup**								
19	Phantom uncertainty	±2.0 %	Rectangular	√3	1	1	±1.2 %	±1.2%	∞
20	Liquid conductivity (target) (≤5%)	±5.0 %	Rectangular	√3	0.64	0.43	±1.8 %	±1.2 %	∞
21	Liquid conductivity (meas.)	±3.0 %	Normal	1	0.64	0.43	±1.9 %	±1.3 %	∞
22	Liquid permittivity (target) (≤5%)	±5.0 %	Rectangular	√3	0.6	0.49	±1.7 %	±1.4 %	∞
23	Liquid permittivity (meas.)	±3.0 %	Normal	1	0.6	0.49	±1.8 %	±1.5 %	∞
24	Liquid Conductivity-temp.uncertainty (≤2deg.C.)	±5.2 %	Rectangular	√3	0.78	0.71	±2.3 %	±2.1 %	∞
25	Liquid Permittivity-temp.uncertainty (≤2deg.C.)	±0.8 %	Rectangular	√3	0.23	0.26	±0.1 %	±0.1 %	∞
	Combined Standard Uncertainty						**±12.7** %	**±12.4** %	
	Expanded Uncertainty (k=2)						**±25.4** %	**±24.8** %	

*. This measurement uncertainty budget is suggested by IEEE 1528, IEC 62209-2 and determined by Schmid & Partner Engineering AG (DASY5 Uncertainty Budget).

Uncertainty of system daily check (~6GHz) (DASY5, head liquid, 2.4-6GHz, ΔSAR corrected) (v05)	1g SAR	10g SAR
Combined measurement uncertainty of the measurement system (k=1)	± 12.5 %	± 12.4 %
Expanded uncertainty (k=2)	± 25.0 %	± 24.8 %

	Error Description (v05)	Uncertainty Value	Probability distribution	Divisor	ci (1g)	ci (10g)	ui (1g)	Ui (10g)	vi, veff
A	**Measurement System**						(std. uncertainty)	(std. uncertainty)	
1	Probe Calibration Error (2.45,5.2,5.3,5.5,5.6,5.8GHz±100MHz)	±6.55 %	Normal	1	1	1	±6.55 %	±6.55 %	∞
2	Axial isotropy	±4.7 %	Rectangular	√3	0.7	0.7	±1.9 %	±1.9 %	∞
3	Hemispherical isotropy (*flat phantom, <5°)	±9.6 %	Rectangular	√3	0.7	0.7	±3.9 %	±3.9 %	∞
4	Linearity Error(dynamic range)	±4.7 %	Rectangular	√3	1	1	±2.7 %	±2.7 %	∞
5	Probe modulation response (CW)	±0.0 %	Rectangular	√3	1	1	±0.0 %	±0.0 %	∞
6	Detection limits (0.4-10W/kg)	±1.0 %	Rectangular	√3	1	1	±0.6 %	±0.6 %	∞
7	Boundary effects Error	±4.8 %	Rectangular	√3	1	1	±2.8 %	±2.8 %	∞
8	Readout Electronics Error(DAE)	±0.3 %	Normal	1	1	1	±0.3 %	±0.3 %	∞
9	Response Time Error (<5ms/100ms wait)	±0.0 %	Rectangular	√3	1	1	±0.0 %	±0.0 %	∞
10	Integration Time Error (CW)	±0.0 %	Rectangular	√3	1	1	±0.0 %	±0.0 %	∞
11	RF ambient conditions-noise	±3.0 %	Rectangular	√3	1	1	±1.7 %	±1.7 %	∞
12	RF ambient conditions-reflections	±3.0 %	Rectangular	√3	1	1	±1.7 %	±1.7 %	∞
13	Probe positioner mech. Restrictions	±3.3 %	Rectangular	√3	1	1	±1.9 %	±1.9 %	∞
14	Probe positioning with respect to phantom shell	±6.7 %	Rectangular	√3	1	1	±3.9 %	±3.9 %	∞
15	Post-processing	±4.0 %	Rectangular	√3	1	1	±2.3 %	±2.3 %	∞
B	**Field Source (dipole)**								
16	Deviation of the experimental source	±5.5 %	Normal	1	1	1	±5.5 %	±5.5 %	∞
17	Dipole to liquid distance (10mm±0.2mm,<2deg.)	±2.0 %	Rectangular	√3	1	1	±1.2 %	±1.2 %	∞
18	Drift of output power (measured, <0.2dB)	±2.5 %	Rectangular	√3	1	1	±1.4 %	±1.4 %	∞
C	**Phantom and Setup**								
19	Phantom uncertainty(liq./ant.:10mm)	±2.0 %	Rectangular	√3	1	1	±1.2 %	±1.2 %	∞
20	Algorithm for correcting SAR (ε',σ: ≤5%)	±1.2 %	Normal	1	1	0.84	±1.2 %	±1.0 %	∞
21	Liquid Conductivity Error (meas.)	±3.0 %	Normal	1	0.78	0.71	±2.3 %	±2.1 %	∞
22	Liquid Permittivity Error (meas.)	±3.0 %	Normal	1	0.23	0.26	±0.7 %	±0.8 %	∞
23	Liquid Conductivity-temp.uncertainty (≤2deg.C.)	±5.2 %	Rectangular	√3	0.78	0.71	±2.3 %	±2.1 %	∞
24	Liquid Permittivity-temp.uncertainty (≤2deg.C.)	±0.8 %	Rectangular	√3	0.23	0.26	±0.1 %	±0.1 %	∞
	Combined Standard Uncertainty						**±12.5** %	**±12.4** %	
	Expanded Uncertainty (k=2)						**±25.0** %	**±24.8** %	

*. This measurement uncertainty budget is suggested by IEC 62209-2 and determined by Schmid & Partner Engineering AG (DASY5 Uncertainty Budget).

Appendix 3-7: Daily check measurement data

(April 1, 2013) 5200MHz and 5500MHz Daily check (Body liquid) / Forward conducted power: 100mW

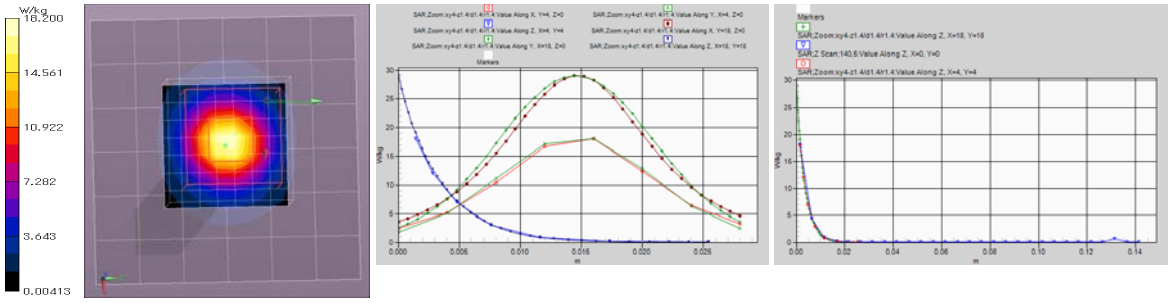
EUT: Dipole(5GHz); Type: D5GHzV2; Serial: 1070

Communication System: CW; Frequency: 5200 MHz; Crest Factor: 1.0
Medium: MSL5800; Medium parameters used: f = 5200 MHz; σ = 5.439 S/m; ε_r = 47.36; ρ = 1000 kg/m^3
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration: -Probe: EX3DV4 - SN3679; ConvF(4.13, 4.13, 4.13); Calibrated: 2012/06/21;
-Sensor-Surface: 1.4mm (Mechanical Surface Detection), z = 1.0, 25.0, 141.0 -Electronics: DAE4 Sn626; Calibrated: 2013/03/11
-Phantom: ELI v4.0; Type: QDOVA001BA; Serial: 1059; Phantom section: Flat Section
-DASY52 52.8.2(969); SEMCAD X 14.6.6(6824)

Area:60x60,10 (7x7x1): Measurement grid: dx=10mm, dy=10mm; Maximum value of SAR (measured) = 18.4 W/kg
Area:60x60,10 (61x61x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm; Maximum value of SAR (interpolated) = 18.7 W/kg
Z Scan;140,5 (1x1x29): Measurement grid: dx=20mm, dy=20mm, dz=5mm; Maximum value of SAR (measured) = 18.2 W/kg

Zoom:xy4-z1.4/d1.4/r1.4 (8x8x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm;
Reference Value = 67.278 V/m; Power Drift = 0.01 dB, Maximum value of SAR (measured) = 18.0 W/kg
Peak SAR (extrapolated) = 29.016 mW/g (+0.4%, vs. speag-cal.=28.9mW/g)
SAR(1 g) = 7.64 mW/g (+3.1%, vs. speag-cal.=7.41mW/g)**; SAR(10 g) = 2.17 mW/g**



Remarks: *. Date tested: 2013/04/01; Tested by: Hiroshi Naka; Tested place:No.7 shielded room,
*.liquid depth: 130mm; Position: distance of dipole to phantom: 8mm (10mm to liquid); ambient: 24.9 deg.C. / 36 %RH,
*.liquid temperature: 22.8(start)/22.9(end)/23.4(in check) deg.C.; *.White cubic: zoom scan area, Red cubic: big=SAR(10g)/small=SAR(1g)

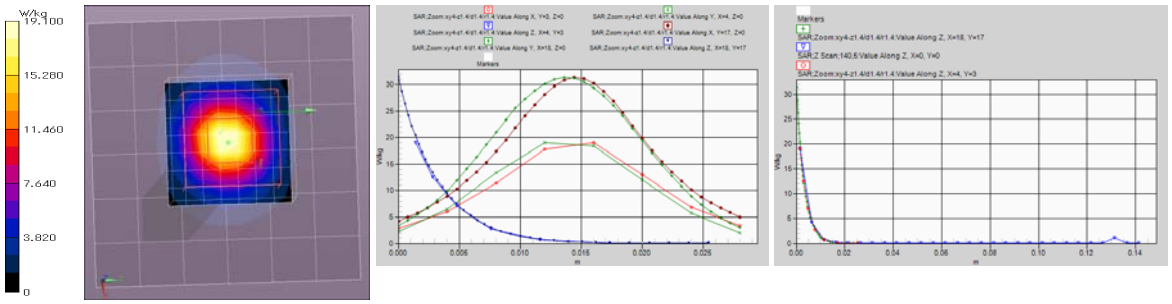
EUT: Dipole(5GHz); Type: D5GHzV2; Serial: 1070

Communication System: CW; Frequency: 5500 MHz; Crest Factor: 1.0
Medium: MSL5800; Medium parameters used: f = 5500 MHz; σ = 5.87 S/m; ε_r = 46.86; ρ = 1000 kg/m^3
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration: -Probe: EX3DV4 - SN3679; ConvF(3.7, 3.7, 3.7); Calibrated: 2012/06/21;
-Sensor-Surface: 1.4mm (Mechanical Surface Detection), z = 1.0, 25.0, 141.0 -Electronics: DAE4 Sn626; Calibrated: 2013/03/11
-Phantom: ELI v4.0; Type: QDOVA001BA; Serial: 1059; Phantom section: Flat Section
-DASY52 52.8.2(969); SEMCAD X 14.6.6(6824)

Area:60x60,10 (7x7x1): Measurement grid: dx=10mm, dy=10mm; Maximum value of SAR (measured) = 18.4 W/kg
Area:60x60,10 (61x61x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm; Maximum value of SAR (interpolated) = 19.4 W/kg
Z Scan;140,5 (1x1x29): Measurement grid: dx=20mm, dy=20mm, dz=5mm; Maximum value of SAR (measured) = 19.2 W/kg

Zoom:xy4-z1.4/d1.4/r1.4 (8x8x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm;
Reference Value = 65.631 V/m; Power Drift = 0.05 dB, Maximum value of SAR (measured) = 19.1 W/kg
Peak SAR (extrapolated) = 31.367 mW/g (-7.7%, vs. speag-cal.=34mW/g)
SAR(1 g) = 7.97 mW/g (+0.6%, vs. speag-cal.=7.92mW/g)**; SAR(10 g) = 2.26 mW/g**



Remarks: *. Date tested: 2013/04/01; Tested by: Hiroshi Naka; Tested place:No.7 shielded room,
*.liquid depth: 130mm; Position: distance of dipole to phantom: 8mm (10mm to liquid); ambient: 24.9 deg.C. / 36 %RH,
*.liquid temperature: 22.9(start)/23.0(end)/23.4(in check) deg.C.; *.White cubic: zoom scan area, Red cubic: big=SAR(10g)/small=SAR(1g)

Appendix 3-7: Daily check measurement data (cont'd)

(April 2, 2013) 5500MHz and 5800MHz Daily check (Body liquid) / Forward conducted power: 100mW

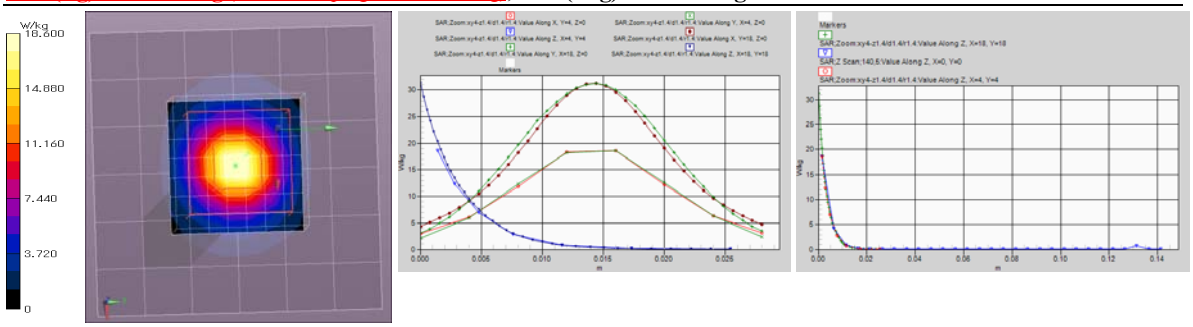
EUT: Dipole(5GHz); Type: D5GHzV2; Serial: 1070

Communication System: CW; Frequency: 5500 MHz; Crest Factor: 1.0
Medium: MSL5800; Medium parameters used: f = 5500 MHz; σ = 5.882 S/m; ε_r = 47.19; ρ = 1000 kg/m^3
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration: -Probe: EX3DV4 - SN3679; ConvF(3.7, 3.7, 3.7); Calibrated: 2012/06/21;
-Sensor-Surface: 1.4mm (Mechanical Surface Detection), z = 1.0, 25.0, 141.0 -Electronics: DAE4 Sn626; Calibrated: 2013/03/11
-Phantom: ELI v4.0; Type: QDOVA001BA; Serial: 1059; Phantom section: Flat Section
-DASY52 52.8.2(969); SEMCAD X 14.6.6(6824)

Area:60x60,10 (7x7x1): Measurement grid: dx=10mm, dy=10mm; Maximum value of SAR (measured) = 20.2 W/kg
Area:60x60,10 (61x61x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm; Maximum value of SAR (interpolated) = 20.4 W/kg
Z Scan;140,5 (1x1x29): Measurement grid: dx=20mm, dy=20mm, dz=5mm; Maximum value of SAR (measured) = 18.6 W/kg

Zoom:xy4-z1.4/d1.4/r1.4 (8x8x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm;
Reference Value = 68.507 V/m; Power Drift = -0.02 dB, Maximum value of SAR (measured) = 18.6 W/kg
Peak SAR (extrapolated) = 31.238 mW/g (-8.1%, vs. speag-cal.=34mW/g)
SAR(1 g) = 8.05 mW/g (+1.6%, vs. speag-cal.=7.92mW/g)**; SAR(10 g) = 2.29 mW/g**



Remarks: *. Date tested: 2013/04/02; Tested by: Hiroshi Naka; Tested place:No.7 shielded room,
*.liquid depth: 131mm; Position: distance of dipole to phantom: 8mm (10mm to liquid); ambient: 24.6 deg.C. / 44 %RH,
*.liquid temperature: 23.9(start)/23.7(end)/24.5(in check) deg.C.; *.White cubic: zoom scan area, Red cubic: big=SAR(10g)/small=SAR(1g)

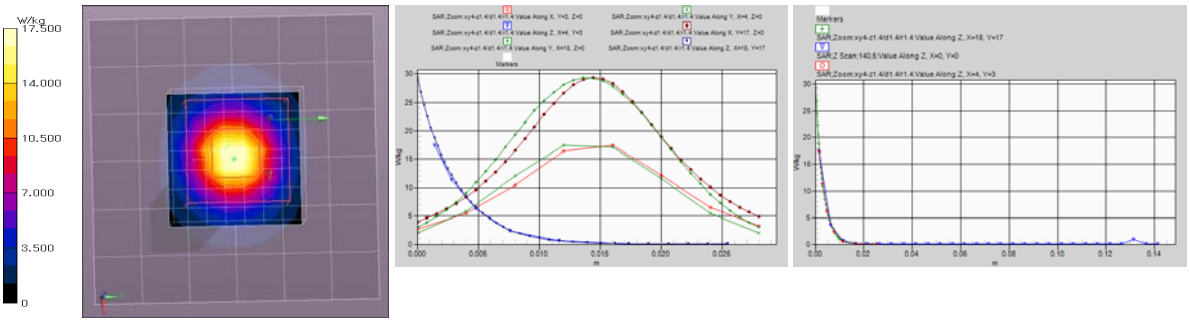
EUT: Dipole(5GHz); Type: D5GHzV2; Serial: 1070

Communication System: CW; Frequency: 5800 MHz; Crest Factor: 1.0
Medium: MSL5800; Medium parameters used: f = 5800 MHz; σ = 6.256 S/m; ε_r = 46.71; ρ = 1000 kg/m^3
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration: -Probe: EX3DV4 - SN3679; ConvF(3.87, 3.87, 3.87); Calibrated: 2012/06/21;
-Sensor-Surface: 1.4mm (Mechanical Surface Detection), z = 1.0, 25.0, 141.0 -Electronics: DAE4 Sn626; Calibrated: 2013/03/11
-Phantom: ELI v4.0; Type: QDOVA001BA; Serial: 1059; Phantom section: Flat Section
-DASY52 52.8.2(969); SEMCAD X 14.6.6(6824)

Area:60x60,10 (7x7x1): Measurement grid: dx=10mm, dy=10mm; Maximum value of SAR (measured) = 18.5 W/kg
Area:60x60,10 (61x61x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm; Maximum value of SAR (interpolated) = 18.5 W/kg
Z Scan;140,5 (1x1x29): Measurement grid: dx=20mm, dy=20mm, dz=5mm; Maximum value of SAR (measured) = 17.4 W/kg

Zoom:xy4-z1.4/d1.4/r1.4 (8x8x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm;
Reference Value = 64.724 V/m; Power Drift = -0.01 dB, Maximum value of SAR (measured) = 17.5 W/kg
Peak SAR (extrapolated) = 29.320 mW/g (-14.5%, vs. speag-cal.=34.3mW/g)
SAR(1 g) = 7.25 mW/g (-1.9%, vs. speag-cal.=7.39mW/g)**; SAR(10 g) = 2.05 mW/g**



Remarks: *. Date tested: 2013/04/02; Tested by: Hiroshi Naka; Tested place:No.7 shielded room,
*.liquid depth: 131mm; Position: distance of dipole to phantom: 8mm (10mm to liquid); ambient: 24.6 deg.C. / 44 %RH,
*.liquid temperature: 23.7(start)/23.6(end)/24.5(in check) deg.C.; *.White cubic: zoom scan area, Red cubic: big=SAR(10g)/small=SAR(1g)

Appendix 3-7: Daily check measurement data (cont'd)

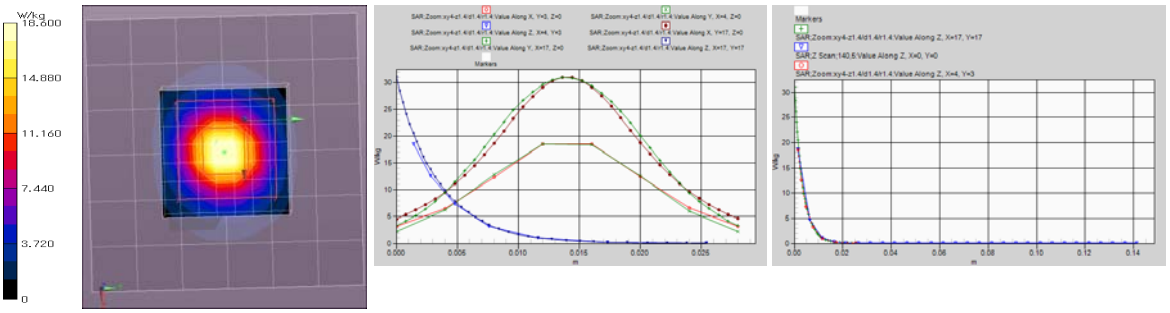
(April 3, 2013) 5200MHz Daily check (Head liquid) / Forward conducted power: 100mW

EUT: Dipole(5GHz); Type: D5GHzV2; Serial: 1070
Communication System: CW; Frequency: 5200 MHz; Crest Factor: 1.0
Medium: HSL5800_head; Medium parameters used: f = 5200 MHz; σ = 4.683 S/m; ε_r = 36.24; ρ = 1000 kg/m^3
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration: -Probe: EX3DV4 - SN3679; ConvF(4.66, 4.66, 4.66); Calibrated: 2012/06/21;
-Sensor-Surface: 1.4mm (Mechanical Surface Detection), z = 1.0, 25.0, 141.0 -Electronics: DAE4 Sn626; Calibrated: 2013/03/11
-Phantom: ELI v4.0; Type: QDOVA001BA; Serial: 1059; Phantom section: Flat Section
-DASY52 52.8.2(969); SEMCAD X 14.6.6(6824)

Area:60x60,10 (7x7x1): Measurement grid: dx=10mm, dy=10mm; Maximum value of SAR (measured) = 20.4 W/kg
Area:60x60,10 (61x61x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm; Maximum value of SAR (interpolated) = 20.4 W/kg
Z Scan;140,5 (1x1x29): Measurement grid: dx=20mm, dy=20mm, dz=5mm; Maximum value of SAR (measured) = 18.7 W/kg

Zoom:xy4-z1.4/d1.4/r1.4 (8x8x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm;
Reference Value = 73.548 V/m; Power Drift = 0.02 dB, Maximum value of SAR (measured) = 18.6 W/kg
Peak SAR (extrapolated) = 30.955 mW/g (+4.6%, vs. speag-cal.=29.6mW/g / -0.1%, vs. std.IEC62209-2=31mW/g)
SAR(1 g) = 8.38 mW/g (*. Refer to Appendix 3-5 for deviation); **SAR(10 g) = 2.45 mW/g**



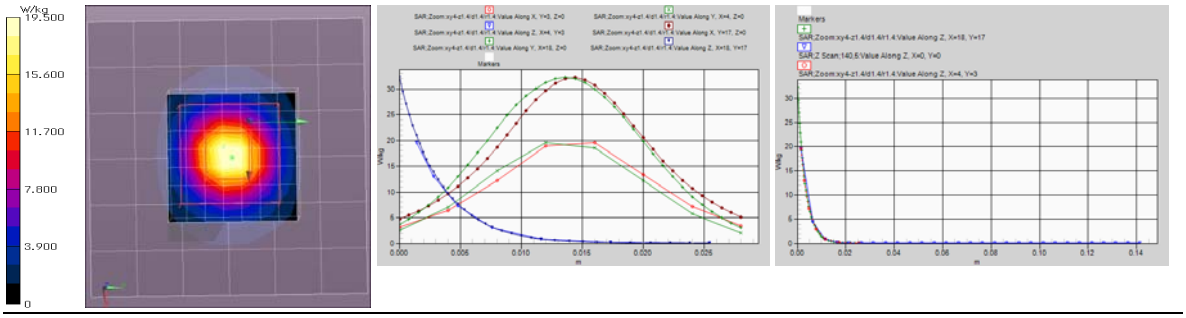
Remarks: *. Date tested: 2013/04/03; Tested by: Hiroshi Naka; Tested place:No.7 shielded room,
*.liquid depth: 145mm; Position: distance of dipole to phantom: 8mm (10mm to liquid); ambient: 24.6 deg.C. / 52 %RH,
*.liquid temperature: 24.9(start)/24.8(end)/24.7(in check) deg.C.; *.White cubic: zoom scan area, Red cubic: big=SAR(10g)/small=SAR(1g)

(April 4, 2013) 5500MHz Daily check (Head liquid) / Forward conducted power: 100mW

EUT: Dipole(5GHz); Type: D5GHzV2; Serial: 1070
Communication System: CW; Frequency: 5500 MHz; Crest Factor: 1.0
Medium: HSL5800_head; Medium parameters used: f = 5500 MHz; σ = 5.031 S/m; ε_r = 35.80; ρ = 1000 kg/m^3
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration: -Probe: EX3DV4 - SN3679; ConvF(4.3, 4.3, 4.3); Calibrated: 2012/06/21;
-Sensor-Surface: 1.4mm (Mechanical Surface Detection), z = 1.0, 25.0, 141.0 -Electronics: DAE4 Sn626; Calibrated: 2013/03/11
-Phantom: ELI v4.0; Type: QDOVA001BA; Serial: 1059; Phantom section: Flat Section
-DASY52 52.8.2(969); SEMCAD X 14.6.6(6824)

daily-hsl5g,d5ghzv2_1070(cal.130314),130404/Daily_m55,d10mm,prd:1.4mm,Pin=100mW/
Area:60x60,10 (7x7x1): Measurement grid: dx=10mm, dy=10mm; Maximum value of SAR (measured) = 21.1 W/kg
Area:60x60,10 (61x61x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm; Maximum value of SAR (interpolated) = 21.1 W/kg
Z Scan;140,5 (1x1x29): Measurement grid: dx=20mm, dy=20mm, dz=5mm; Maximum value of SAR (measured) = 19.6 W/kg
Zoom:xy4-z1.4/d1.4/r1.4 (8x8x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm;
Reference Value = 73.370 V/m; Power Drift = -0.06 dB, Maximum value of SAR (measured) = 19.5 W/kg
Peak SAR (extrapolated) = 32.201 mW/g (-5.0%, vs. speag-cal.=33.9mW/g / -7.7%, vs. std.IEC62209-2=34.9mW/g)
SAR(1 g) = 8.3 mW/g (*. Refer to Appendix 3-5 for deviation); **SAR(10 g) = 2.4 mW/g**



Remarks: *. Date tested: 2013/04/04; Tested by: Hiroshi Naka; Tested place:No.7 shielded room,
*.liquid depth: 144mm; Position: distance of dipole to phantom: 8mm (10mm to liquid); ambient: 24.9 deg.C. / 41 %RH,
*.liquid temperature: 23.5(start)/23.4(end)/23.4(in check) deg.C.; *.White cubic: zoom scan area, Red cubic: big=SAR(10g)/small=SAR(1g)

Appendix 3-7: Daily check measurement data (cont'd)

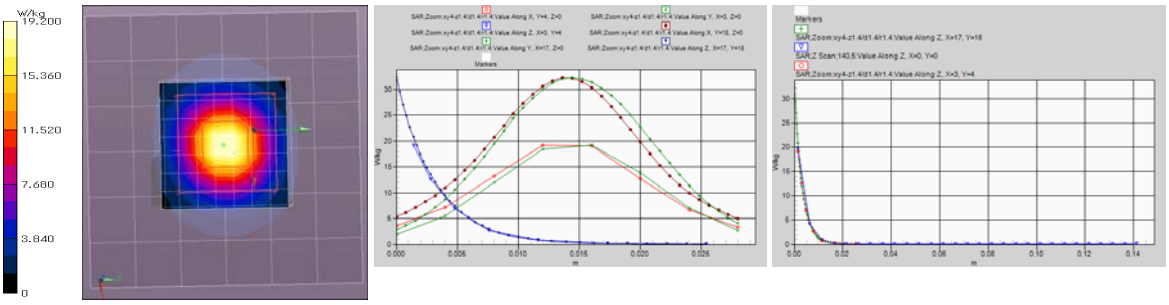
(April 5, 2013) 5800MHz Daily check (Head liquid) / Forward conducted power: 100mW

EUT: Dipole(5GHz); Type: D5GHzV2; Serial: 1070
Communication System: CW; Frequency: 5800 MHz; Crest Factor: 1.0
Medium: HSL5800_head; Medium parameters used: f = 5800 MHz; σ = 5.367 S/m; ε_r = 34.00; ρ = 1000 kg/m^3
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration: -Probe: EX3DV4 - SN3679; ConvF(4.19, 4.19, 4.19); Calibrated: 2012/06/21;
-Sensor-Surface: 1.4mm (Mechanical Surface Detection), z = 1.0, 25.0, 141.0 -Electronics: DAE4 Sn626; Calibrated: 2013/03/11
-Phantom: ELI v4.0; Type: QDOVA001BA; Serial: 1059; Phantom section: Flat Section
-DASY52 52.8.2(969); SEMCAD X 14.6.6(6824)

daily-hsl5g,d5ghzv2_1070(cal.130314),130405/Daily_m58,d10mm,prd:1.4mm,Pin=100mW/
Area:60x60,10 (7x7x1): Measurement grid: dx=10mm, dy=10mm; Maximum value of SAR (measured) = 21.0 W/kg
Area:60x60,10 (61x61x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm; Maximum value of SAR (interpolated) = 21.2 W/kg
Z Scan;140,5 (1x1x29): Measurement grid: dx=20mm, dy=20mm, dz=5mm; Maximum value of SAR (measured) = 19.6 W/kg

Zoom:xy4-z1.4/d1.4/r1.4 (8x8x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm;
Reference Value = 71.543 V/m; Power Drift = -0.06 dB, Maximum value of SAR (measured) = 19.2 W/kg
Peak SAR (extrapolated) = 32.248 mW/g (-1.7%, vs. speag-cal.=32.8mW/g / -5.4%, vs. std.IEC62209-2=34.1mW/g)
SAR(1 g) = 8.19 mW/g (*. Refer to Appendix 3-5 for deviation)**; SAR(10 g) = 2.4 mW/g**



Remarks: *. Date tested: 2013/04/05; Tested by: Hiroshi Naka; Tested place:No.7 shielded room,
*.liquid depth: 143mm; Position: distance of dipole to phantom: 8mm (10mm to liquid); ambient: 24.9 deg.C. / 50 %RH,
*.liquid temperature: 23.6(start)/23.6(end)/23.7(in check) deg.C.; *.White cubic: zoom scan area, Red cubic: big=SAR(10g)/small=SAR(1g)