

Test Laboratory: Compliance Certification Services (UL CCS)

2.4 GHz_Laptop Mode

DUT: Samsung; Type: NA; Serial: CZGU93CB200090M

Communication System: 802.11b/g 2.4GHz; Frequency: 2437 MHz; Duty Cycle: 1:1
Medium parameters used (interpolated): $f = 2437$ MHz; $\sigma = 1.99$ mho/m; $\epsilon_r = 51$; $\rho = 1000$ kg/m³
Phantom section: Flat Section

Room Ambient Temperature: 24.0 deg. C; Liquid Temperature: 23.0 deg. C

DASY4 Configuration:

- Area Scan setting - Find Secondary Maximum Within: 2.0 dB and with a peak SAR value greater than 0.0012W/kg
- Probe: EX3DV4 - SN3749; ConvF(6.9, 6.9, 6.9); Calibrated: 12/13/2010
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn427; Calibrated: 7/21/2010
- Phantom: Flat Phantom ELI4.0; Type: QDOVA001BA; Serial: SN:1003
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

802.11b M-ch M&A Ant/Area Scan (7x21x1): Measurement grid: dx=15mm, dy=15mm

[Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (measured) = 0.388 mW/g

802.11b M-ch M&A Ant/Zoom Scan (7x7x9)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=3mm

Reference Value = 14.0 V/m; Power Drift = -0.113 dB

Peak SAR (extrapolated) = 0.638 W/kg

SAR(1 g) = 0.343 mW/g; SAR(10 g) = 0.174 mW/g

[Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (measured) = 0.425 mW/g

802.11b M-ch M&A Ant/Zoom Scan (7x7x9)/Cube 1: Measurement grid: dx=5mm, dy=5mm, dz=3mm

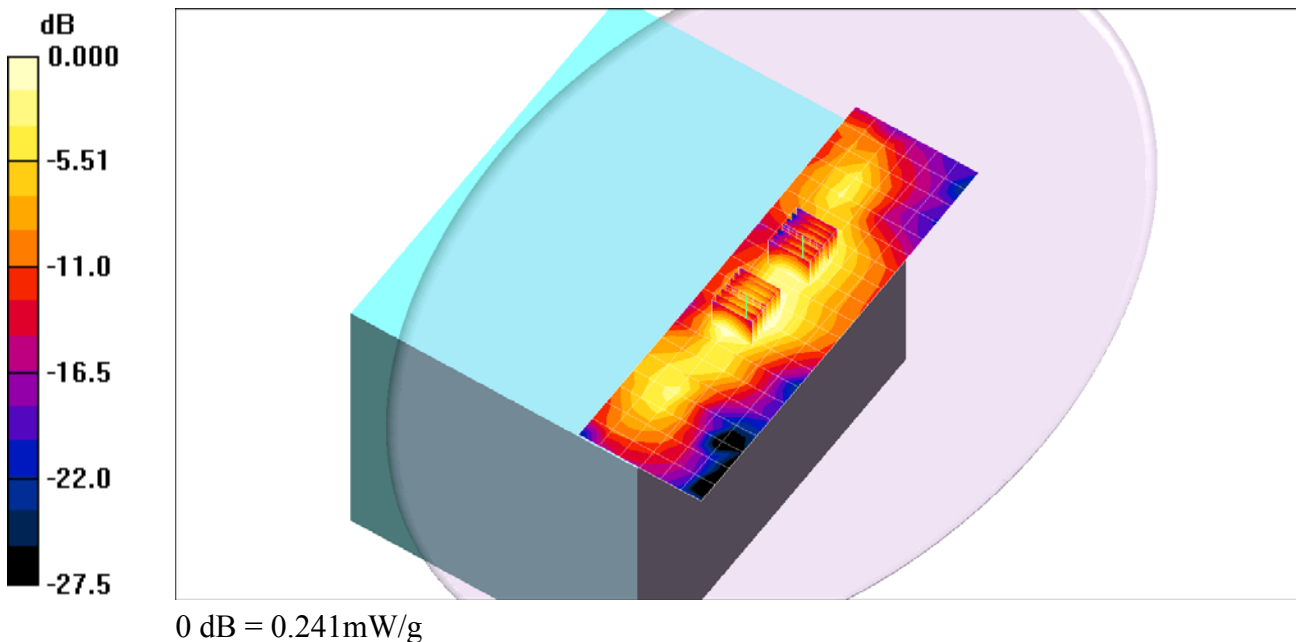
Reference Value = 14.0 V/m; Power Drift = -0.113 dB

Peak SAR (extrapolated) = 0.371 W/kg

SAR(1 g) = 0.189 mW/g; SAR(10 g) = 0.098 mW/g

[Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (measured) = 0.241 mW/g



Test Laboratory: Compliance Certification Services (UL CCS)

2.4 GHz_Laptop Mode

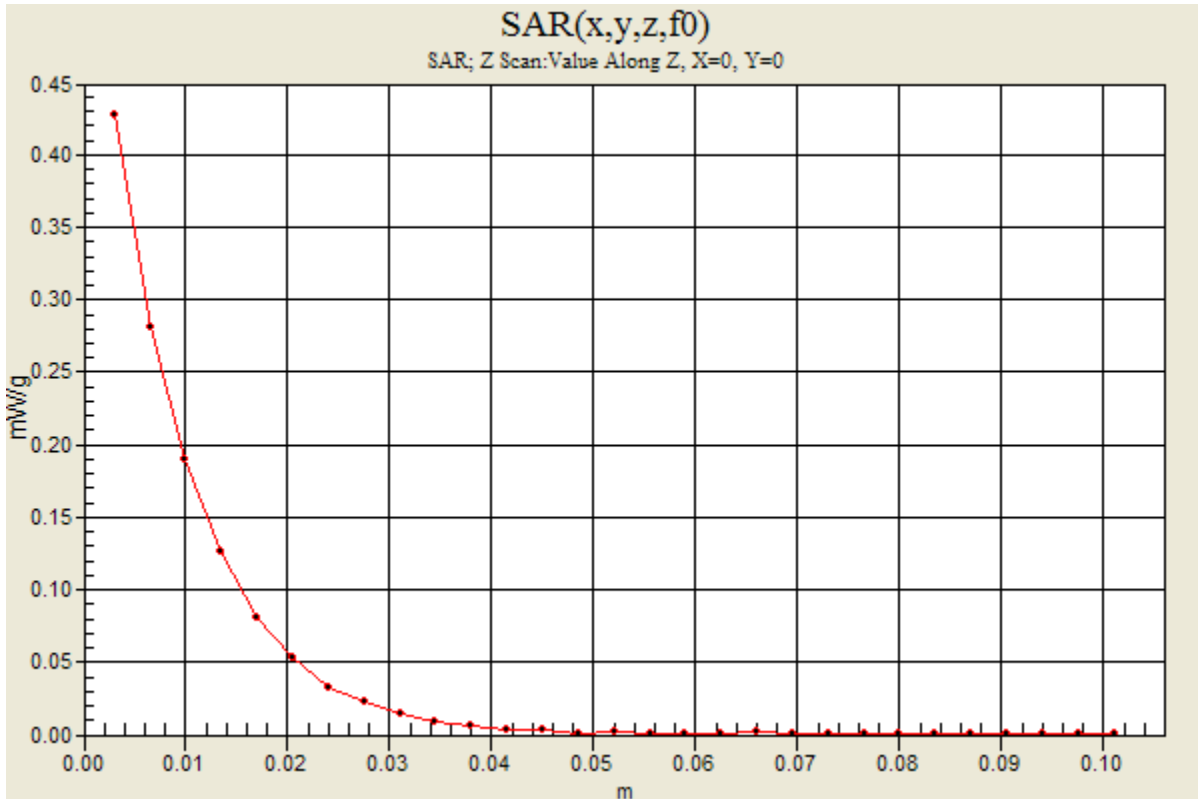
DUT: Samsung; Type: NA; Serial: CZGU93CB200090M

Communication System: 802.11b/g 2.4GHz; Frequency: 2437 MHz;Duty Cycle: 1:1

802.11b M-ch M&A Ant/Z Scan (1x1x29): Measurement grid: dx=20mm, dy=20mm, dz=3.5mm

[Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (measured) = 0.427 mW/g



Test Laboratory: Compliance Certification Services (UL CCS)

5.2 GHz_Laptop Mode

DUT: Samsung; Type: NA; Serial: na

Communication System: 802.11abgn; Frequency: 5200 MHz; Duty Cycle: 1:1
 Medium parameters used: $f = 5200$ MHz; $\sigma = 5.19$ mho/m; $\epsilon_r = 47.8$; $\rho = 1000$ kg/m³
 Phantom section: Flat Section

Room Ambient Temperature: 25.0 deg. C; Liquid Temperature: 24.0 deg. C

DASY4 Configuration:

- Area Scan setting - Find Secondary Maximum Within: 2.0 dB and with a peak SAR value greater than 0.0012W/kg
- Probe: EX3DV4 - SN3749; ConvF(4.07, 4.07, 4.07); Calibrated: 12/13/2010
- Sensor-Surface: 2.5mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn427; Calibrated: 7/21/2010
- Phantom: Flat Phantom ELI4.0; Type: QDOVA001BA; Serial: SN:1003
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

802.11a_ch 40_M&A Ant/Area Scan (10x31x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (measured) = 0.269 mW/g

802.11a_ch 40_M&A Ant/Zoom Scan (7x7x9)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2.5mm

Reference Value = 7.75 V/m; Power Drift = -0.006 dB

Peak SAR (extrapolated) = 0.487 W/kg

SAR(1 g) = 0.172 mW/g; SAR(10 g) = 0.057 mW/g

Maximum value of SAR (measured) = 0.289 mW/g

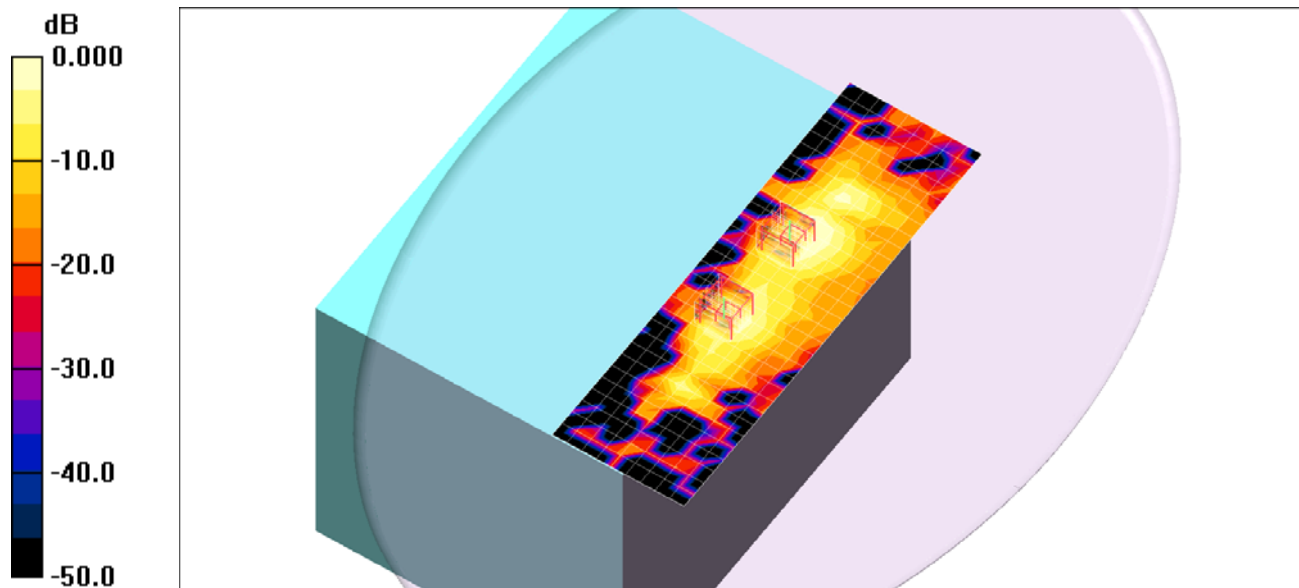
802.11a_ch 40_M&A Ant/Zoom Scan (7x7x9)/Cube 1: Measurement grid: dx=4mm, dy=4mm, dz=2.5mm

Reference Value = 7.75 V/m; Power Drift = -0.006 dB

Peak SAR (extrapolated) = 0.408 W/kg

SAR(1 g) = 0.141 mW/g; SAR(10 g) = 0.048 mW/g

Maximum value of SAR (measured) = 0.233 mW/g



0 dB = 0.233mW/g

Test Laboratory: Compliance Certification Services (UL CCS)

5.2 GHz_Laptop Mode

DUT: Samsung; Type: NA; Serial: na

Communication System: 802.11abgn; Frequency: 5240 MHz; Duty Cycle: 1:1
Medium parameters used (interpolated): $f = 5240$ MHz; $\sigma = 5.24$ mho/m; $\epsilon_r = 47.7$; $\rho = 1000$ kg/m³
Phantom section: Flat Section

Room Ambient Temperature: 25.0 deg. C; Liquid Temperature: 24.0 deg. C

DASY4 Configuration:

- Area Scan setting - Find Secondary Maximum Within: 2.0 dB and with a peak SAR value greater than 0.0012W/kg
- Probe: EX3DV4 - SN3749; ConvF(4.07, 4.07, 4.07); Calibrated: 12/13/2010
- Sensor-Surface: 2.5mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn427; Calibrated: 7/21/2010
- Phantom: Flat Phantom ELI4.0; Type: QDOVA001BA; Serial: SN:1003
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

802.11n HT20_ch 48_M&A Ant/Area Scan (9x29x1): Measurement grid: dx=10mm, dy=10mm
Info: [Interpolated medium parameters used for SAR evaluation.](#) Maximum value of SAR (measured) = 0.582 mW/g

802.11n HT20_ch 48_M&A Ant/Zoom Scan (7x7x9)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2.5mm

Reference Value = 11.4 V/m; Power Drift = -0.083 dB

Peak SAR (extrapolated) = 0.968 W/kg

SAR(1 g) = 0.355 mW/g; SAR(10 g) = 0.140 mW/g

Info: [Interpolated medium parameters used for SAR evaluation.](#) Maximum value of SAR (measured) = 0.556 mW/g

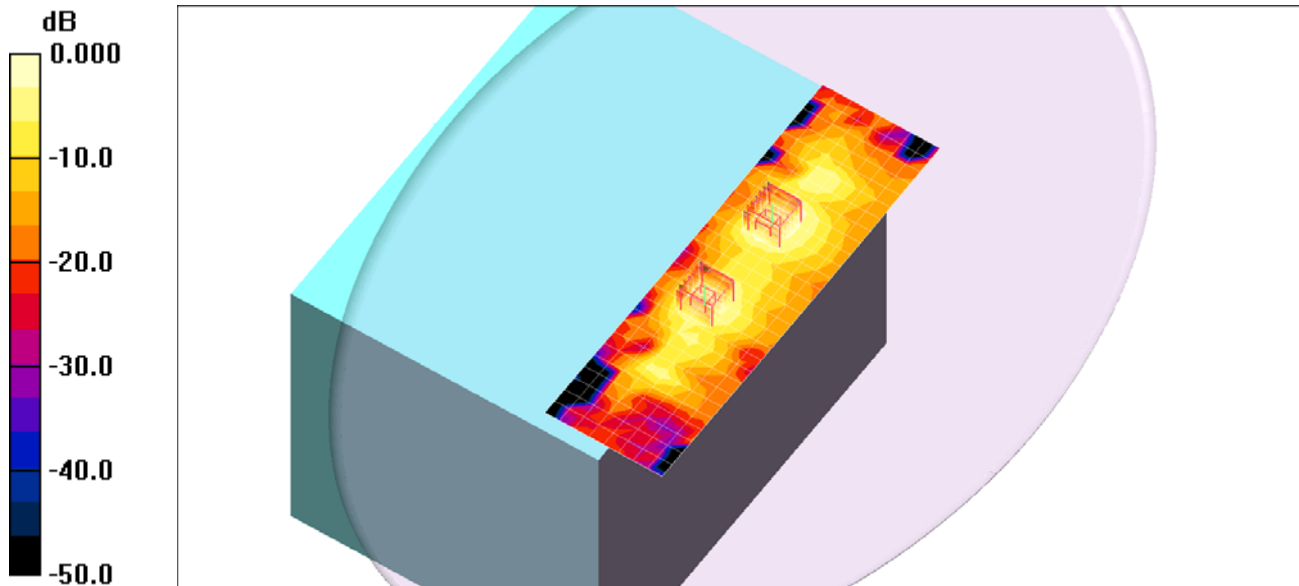
802.11n HT20_ch 48_M&A Ant/Zoom Scan (7x7x9)/Cube 1: Measurement grid: dx=4mm, dy=4mm, dz=2.5mm

Reference Value = 11.4 V/m; Power Drift = -0.083 dB

Peak SAR (extrapolated) = 1.05 W/kg

SAR(1 g) = 0.363 mW/g; SAR(10 g) = 0.130 mW/g

Info: [Interpolated medium parameters used for SAR evaluation.](#) Maximum value of SAR (measured) = 0.576 mW/g



0 dB = 0.576mW/g

Test Laboratory: Compliance Certification Services (UL CCS)

5.2 GHz_Laptop Mode

DUT: Samsung; Type: NA; Serial: CZGU93CB200090M

Communication System: 802.11abgn; Frequency: 5230 MHz; Duty Cycle: 1:1
Medium parameters used (interpolated): $f = 5230$ MHz; $\sigma = 5.23$ mho/m; $\epsilon_r = 47.8$; $\rho = 1000$ kg/m³
Phantom section: Flat Section

Room Ambient Temperature: 25.0 deg. C; Liquid Temperature: 24.0 deg. C

DASY4 Configuration:

- Area Scan setting - Find Secondary Maximum Within: 2.0 dB and with a peak SAR value greater than 0.0012W/kg
- Probe: EX3DV4 - SN3749; ConvF(4.07, 4.07, 4.07); Calibrated: 12/13/2010
- Sensor-Surface: 2.5mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn427; Calibrated: 7/21/2010
- Phantom: Flat Phantom ELI4.0; Type: QDOVA001BA; Serial: SN:1003
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

802.11n HT40_ch 46_M&A Ant/Area Scan (9x29x1): Measurement grid: dx=10mm, dy=10mm

[Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (measured) = 1.21 mW/g

802.11n HT40_ch 46_M&A Ant/Zoom Scan (7x7x9)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2.5mm

Reference Value = 16.4 V/m; Power Drift = 0.141 dB

Peak SAR (extrapolated) = 1.94 W/kg

SAR(1 g) = 0.697 mW/g; SAR(10 g) = 0.245 mW/g

[Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (measured) = 1.16 mW/g

802.11n HT40_ch 46_M&A Ant/Zoom Scan (7x7x9)/Cube 1: Measurement grid: dx=4mm, dy=4mm, dz=2.5mm

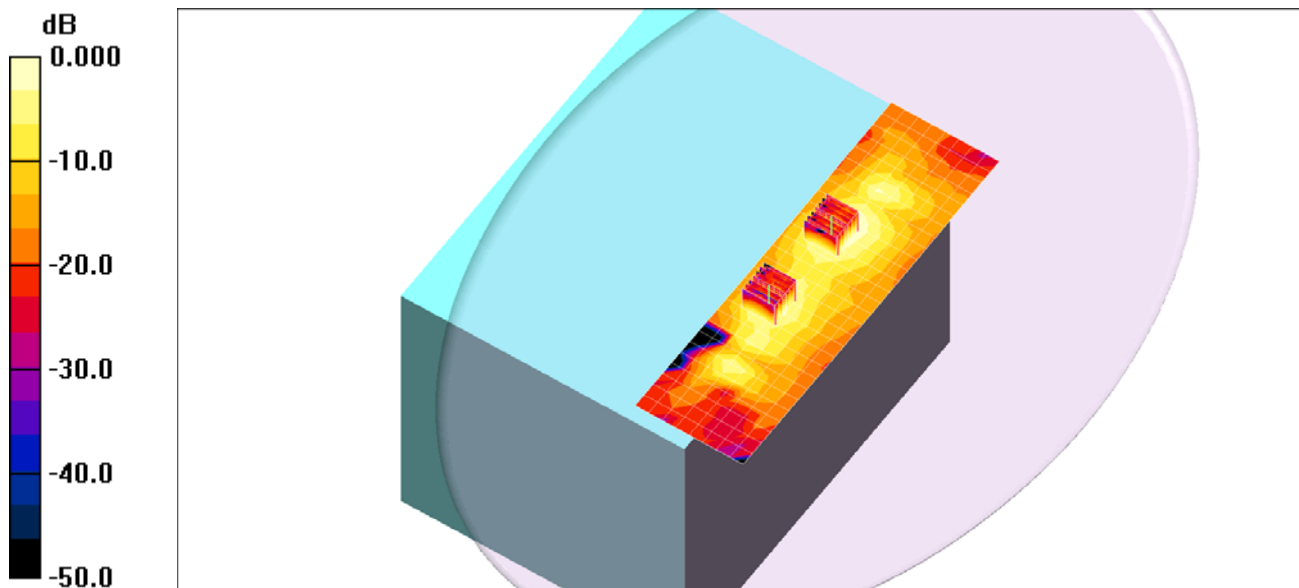
Reference Value = 16.4 V/m; Power Drift = 0.141 dB

Peak SAR (extrapolated) = 2.12 W/kg

SAR(1 g) = 0.775 mW/g; SAR(10 g) = 0.295 mW/g

[Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (measured) = 1.26 mW/g



0 dB = 1.26mW/g

Test Laboratory: Compliance Certification Services (UL CCS)

5.2 GHz_Laptop Mode

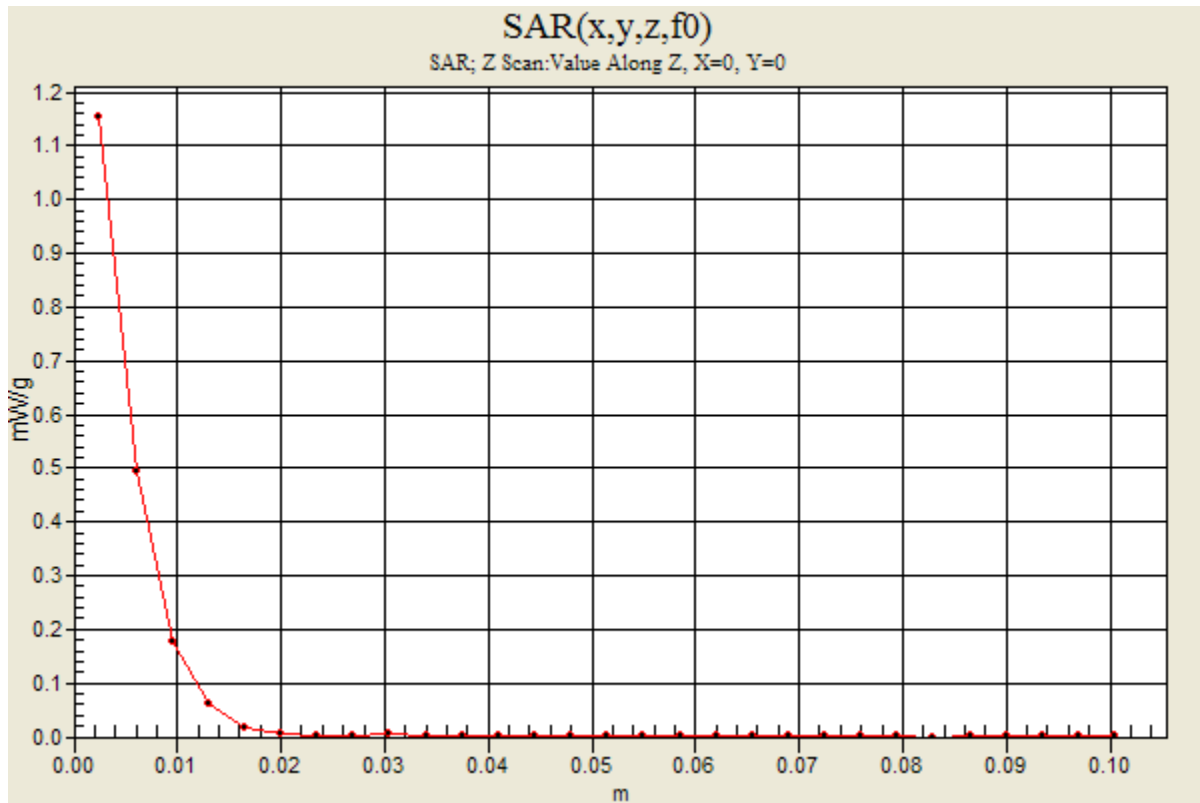
DUT: Samsung; Type: NA; Serial: CZGU93CB200090M

Communication System: 802.11abgn; Frequency: 5230 MHz;Duty Cycle: 1:1

802.11n HT40_ch 46_M&A Ant/Z Scan (1x1x29): Measurement grid: dx=20mm, dy=20mm, dz=3.5mm

Info: [Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (measured) = 1.15 mW/g



Test Laboratory: Compliance Certification Services (UL CCS)

5.3 GHz_Laptop Mode

DUT: Samsung; Type: NA; Serial: CZGU93CB200090M

Communication System: 802.11abgn; Frequency: 5260 MHz; Duty Cycle: 1:1

Medium parameters used (interpolated): $f = 5260$ MHz; $\sigma = 5.27$ mho/m; $\epsilon_r = 47.7$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Room Ambient Temperature: 25.0 deg. C; Liquid Temperature: 24.0 deg. C

DASY4 Configuration:

- Area Scan setting - Find Secondary Maximum Within: 2.0 dB and with a peak SAR value greater than 0.0012W/kg
- Probe: EX3DV4 - SN3749; ConvF(3.88, 3.88, 3.88); Calibrated: 12/13/2010
- Sensor-Surface: 2.5mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn427; Calibrated: 7/21/2010
- Phantom: Flat Phantom ELI4.0; Type: QDOVA001BA; Serial: SN:1003
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

802.11a_ch 52_M&A Ant/Area Scan (9x27x1): Measurement grid: dx=10mm, dy=10mm

[Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (measured) = 1.19 mW/g

802.11a_ch 52_M&A Ant/Zoom Scan (7x7x9)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2.5mm

Reference Value = 16.3 V/m; Power Drift = -0.159 dB

Peak SAR (extrapolated) = 2.09 W/kg

SAR(1 g) = 0.766 mW/g; SAR(10 g) = 0.305 mW/g

[Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (measured) = 1.22 mW/g

802.11a_ch 52_M&A Ant/Zoom Scan (7x7x9)/Cube 1: Measurement grid: dx=4mm, dy=4mm, dz=2.5mm

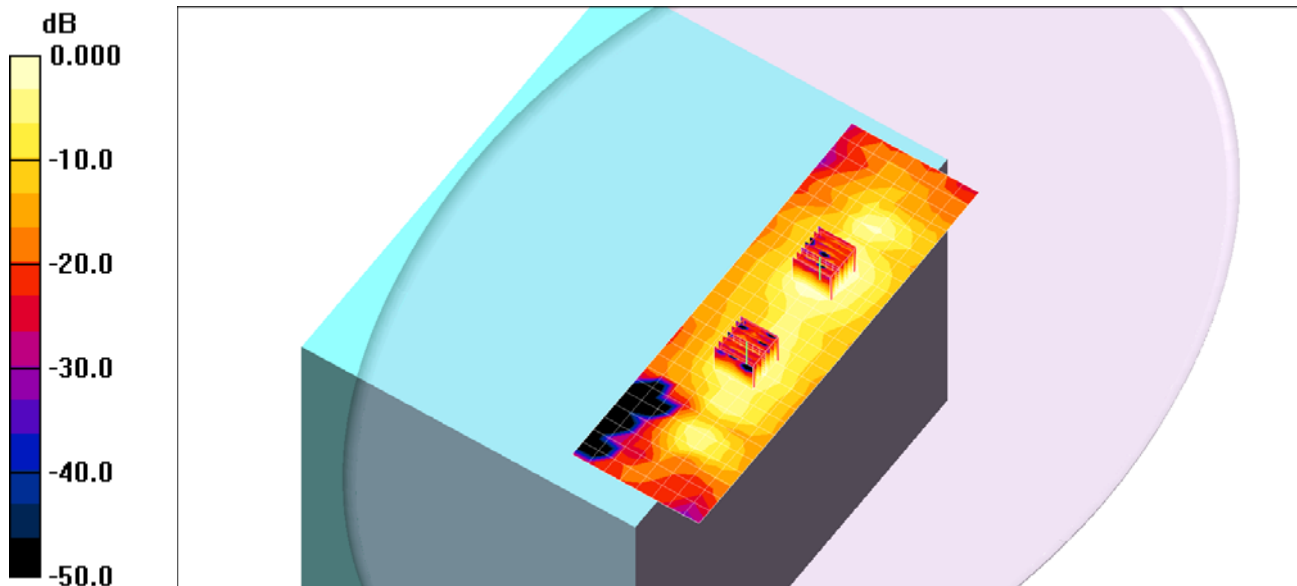
Reference Value = 16.3 V/m; Power Drift = -0.159 dB

Peak SAR (extrapolated) = 1.80 W/kg

SAR(1 g) = 0.641 mW/g; SAR(10 g) = 0.235 mW/g

[Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (measured) = 1.04 mW/g



0 dB = 1.04mW/g

Test Laboratory: Compliance Certification Services (UL CCS)

5.3 GHz_Laptop Mode

DUT: Samsung; Type: NA; Serial: CZGU93CB200090M

Communication System: 802.11abgn; Frequency: 5300 MHz; Duty Cycle: 1:1
Medium parameters used: $f = 5300$ MHz; $\sigma = 5.33$ mho/m; $\epsilon_r = 47.6$; $\rho = 1000$ kg/m³
Phantom section: Flat Section

Room Ambient Temperature: 25.0 deg. C; Liquid Temperature: 24.0 deg. C

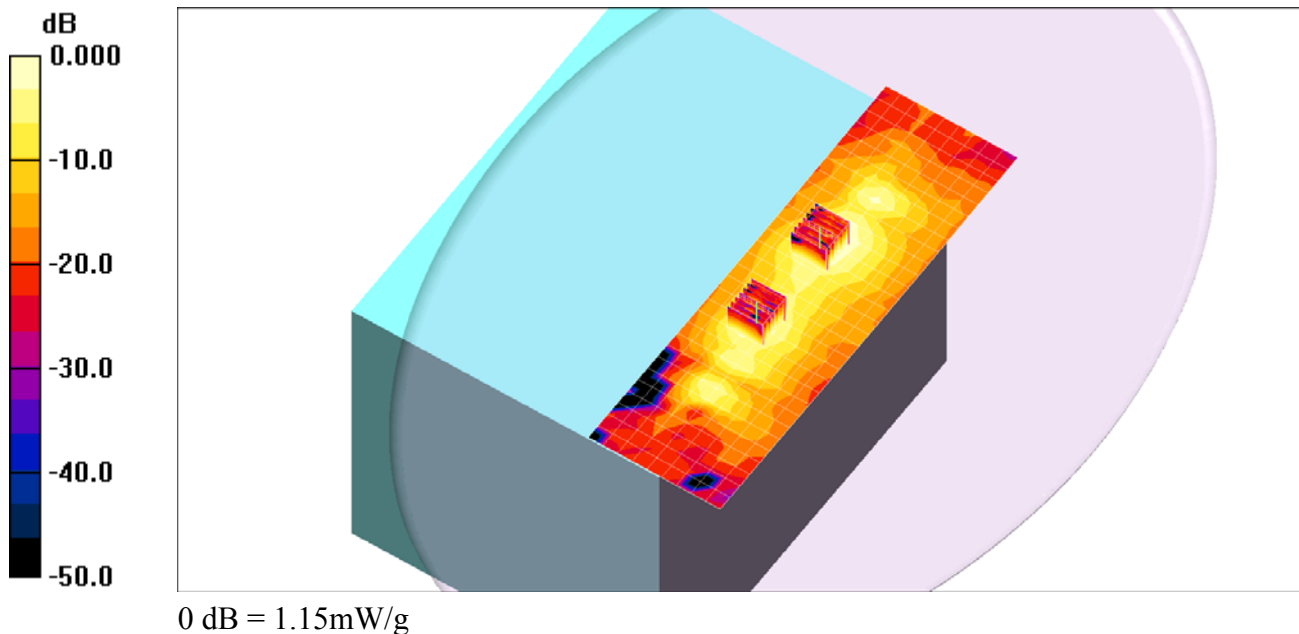
DASY4 Configuration:

- Area Scan setting - Find Secondary Maximum Within: 2.0 dB and with a peak SAR value greater than 0.0012W/kg
- Probe: EX3DV4 - SN3749; ConvF(3.88, 3.88, 3.88); Calibrated: 12/13/2010
- Sensor-Surface: 2.5mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn427; Calibrated: 7/21/2010
- Phantom: Flat Phantom ELI4.0; Type: QDOVA001BA; Serial: SN:1003
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

802.11a_ch 60_M&A Ant/Area Scan (10x31x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (measured) = 1.21 mW/g

802.11a_ch 60_M&A Ant/Zoom Scan (7x7x9)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2.5mm
Reference Value = 16.4 V/m; Power Drift = -0.109 dB
Peak SAR (extrapolated) = 2.33 W/kg
SAR(1 g) = 0.843 mW/g; SAR(10 g) = 0.312 mW/g
Maximum value of SAR (measured) = 1.38 mW/g

802.11a_ch 60_M&A Ant/Zoom Scan (7x7x9)/Cube 1: Measurement grid: dx=4mm, dy=4mm, dz=2.5mm
Reference Value = 16.4 V/m; Power Drift = -0.109 dB
Peak SAR (extrapolated) = 2.05 W/kg
SAR(1 g) = 0.714 mW/g; SAR(10 g) = 0.256 mW/g
Maximum value of SAR (measured) = 1.15 mW/g



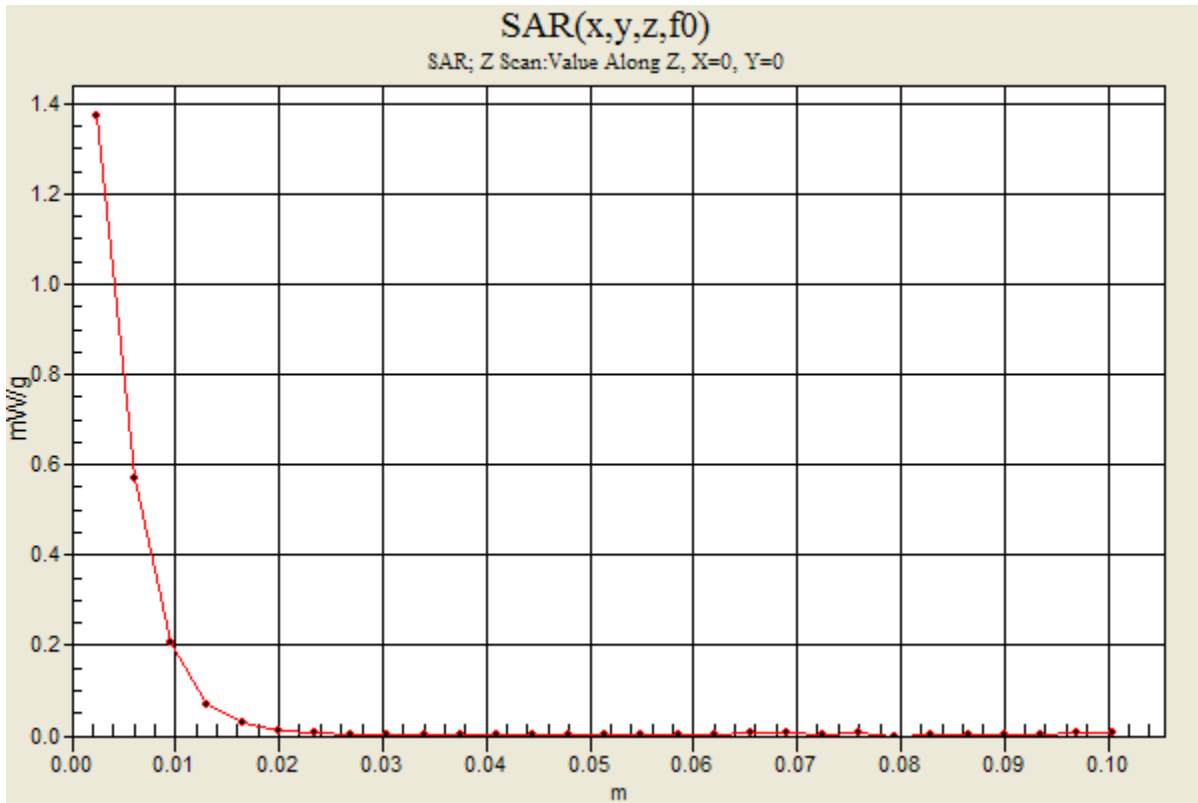
Test Laboratory: Compliance Certification Services (UL CCS)

5.3 GHz_Laptop Mode

DUT: Samsung; Type: NA; Serial: CZGU93CB200090M

Communication System: 802.11abgn; Frequency: 5300 MHz;Duty Cycle: 1:1

802.11a_ch 60_M&A Ant/Z Scan (1x1x29): Measurement grid: dx=20mm, dy=20mm, dz=3.5mm
Maximum value of SAR (measured) = 1.37 mW/g



Test Laboratory: Compliance Certification Services (UL CCS)

5.3 GHz_Laptop Mode

DUT: Samsung; Type: NA; Serial: CZGU93CB200090M

Communication System: 802.11abgn; Frequency: 5320 MHz; Duty Cycle: 1:1
Medium parameters used (interpolated): $f = 5320$ MHz; $\sigma = 5.36$ mho/m; $\epsilon_r = 47.6$; $\rho = 1000$ kg/m³
Phantom section: Flat Section

Room Ambient Temperature: 25.0 deg. C; Liquid Temperature: 24.0 deg. C

DASY4 Configuration:

- Area Scan setting - Find Secondary Maximum Within: 2.0 dB and with a peak SAR value greater than 0.0012W/kg
- Probe: EX3DV4 - SN3749; ConvF(3.88, 3.88, 3.88); Calibrated: 12/13/2010
- Sensor-Surface: 2.5mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn427; Calibrated: 7/21/2010
- Phantom: Flat Phantom ELI4.0; Type: QDOVA001BA; Serial: SN:1003
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

802.11a_ch 64_M&A Ant/Area Scan (9x27x1): Measurement grid: dx=10mm, dy=10mm

[Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (measured) = 0.877 mW/g

802.11a_ch 64_M&A Ant/Zoom Scan (7x7x9)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2.5mm

Reference Value = 14.8 V/m; Power Drift = -0.104 dB

Peak SAR (extrapolated) = 1.83 W/kg

SAR(1 g) = 0.637 mW/g; SAR(10 g) = 0.232 mW/g

[Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (measured) = 1.04 mW/g

802.11a_ch 64_M&A Ant/Zoom Scan (7x7x9)/Cube 1: Measurement grid: dx=4mm, dy=4mm, dz=2.5mm

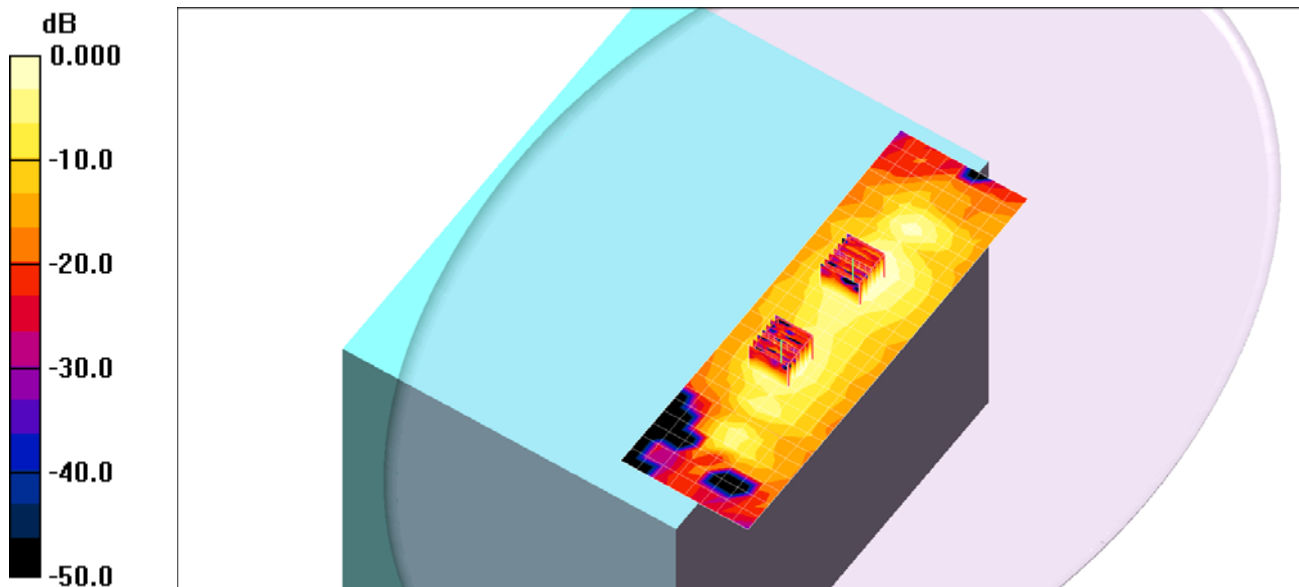
Reference Value = 14.8 V/m; Power Drift = -0.104 dB

Peak SAR (extrapolated) = 1.36 W/kg

SAR(1 g) = 0.479 mW/g; SAR(10 g) = 0.173 mW/g

[Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (measured) = 0.779 mW/g



0 dB = 0.779mW/g

Test Laboratory: UL CCS

5.5 GHz_Laptop Mode

DUT: Samsung; Type: NA; Serial: CZGU93CB200090M

Communication System: 802.11abgn; Frequency: 5500 MHz; Duty Cycle: 1:1
 Medium parameters used: $f = 5500$ MHz; $\sigma = 5.79$ mho/m; $\epsilon_r = 49.4$; $\rho = 1000$ kg/m³
 Phantom section: Flat Section

Room Ambient Temperature: 25.0 deg. C; Liquid Temperature: 24.0 deg. C

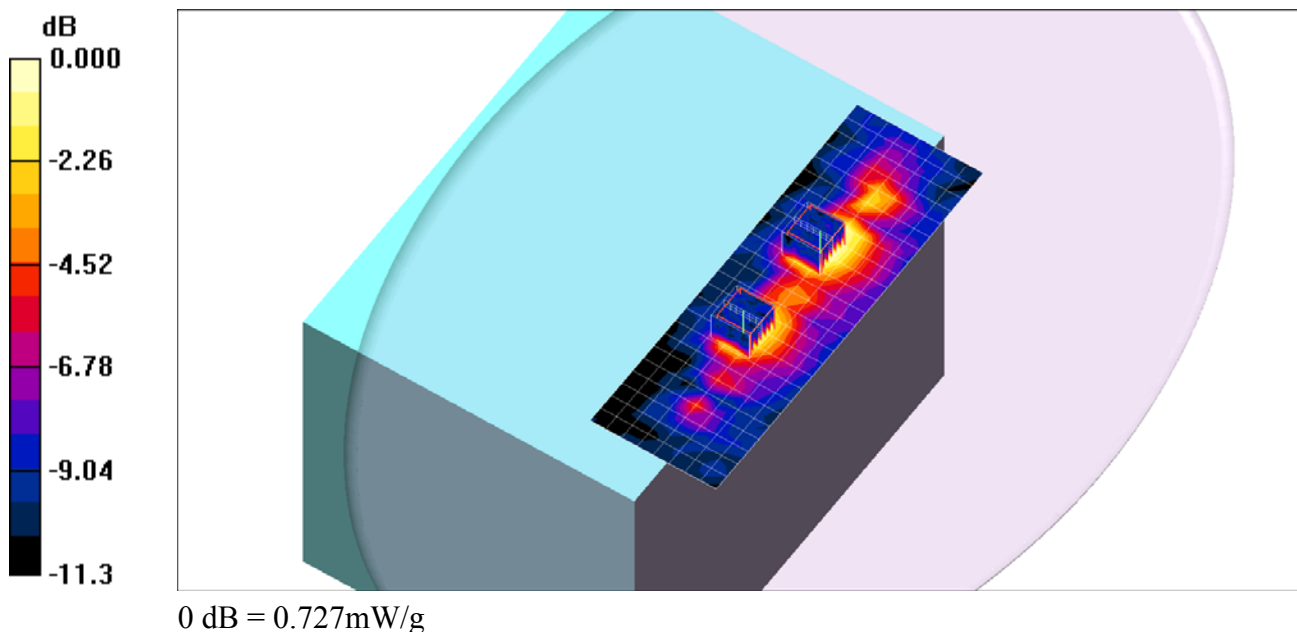
DASY4 Configuration:

- Area Scan setting - Find Secondary Maximum Within: 2.0 dB and with a peak SAR value greater than 0.0012W/kg
- Probe: EX3DV4 - SN3749; ConvF(3.53, 3.53, 3.53); Calibrated: 12/13/2010
- Sensor-Surface: 2.5mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn427; Calibrated: 7/21/2010
- Phantom: Flat Phantom ELI4.0; Type: QDOVA001BA; Serial: SN:1003
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

802.11a_ch 100_M&A Ant/Area Scan (9x26x1): Measurement grid: dx=10mm, dy=10mm
 Maximum value of SAR (measured) = 0.849 mW/g

802.11a_ch 100_M&A Ant/Zoom Scan (7x7x9)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2.5mm
 Reference Value = 13.5 V/m; Power Drift = 0.134 dB
 Peak SAR (extrapolated) = 1.75 W/kg
SAR(1 g) = 0.638 mW/g; SAR(10 g) = 0.283 mW/g
 Maximum value of SAR (measured) = 0.970 mW/g

802.11a_ch 100_M&A Ant/Zoom Scan (7x7x9)/Cube 1: Measurement grid: dx=4mm, dy=4mm, dz=2.5mm
 Reference Value = 13.5 V/m; Power Drift = 0.134 dB
 Peak SAR (extrapolated) = 1.19 W/kg
SAR(1 g) = 0.477 mW/g; SAR(10 g) = 0.236 mW/g
 Maximum value of SAR (measured) = 0.727 mW/g



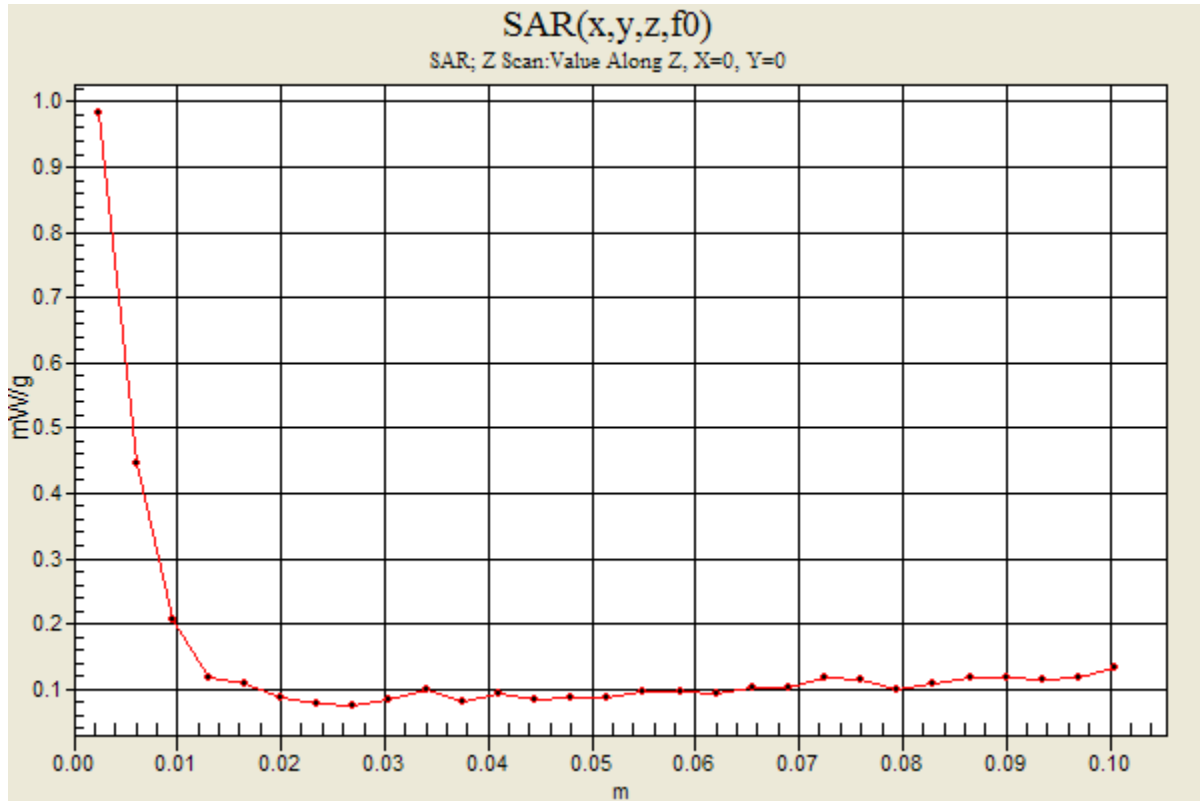
Test Laboratory: UL CCS

5.5 GHz_Laptop Mode

DUT: Samsung; Type: NA; Serial: CZGU93CB200090M

Communication System: 802.11abgn; Frequency: 5500 MHz;Duty Cycle: 1:1

802.11a_ch 100_M&A Ant/Z Scan (1x1x29): Measurement grid: dx=20mm, dy=20mm, dz=3.5mm
Maximum value of SAR (measured) = 0.982 mW/g



Test Laboratory: UL CCS

5.5 GHz_Laptop Mode

DUT: Samsung; Type: NA; Serial: CZGU93CB200090M

Communication System: 802.11abgn; Frequency: 5600 MHz; Duty Cycle: 1:1
Medium parameters used: $f = 5600$ MHz; $\sigma = 5.94$ mho/m; $\epsilon_r = 49.2$; $\rho = 1000$ kg/m³
Phantom section: Flat Section

Room Ambient Temperature: 25.0 deg. C; Liquid Temperature: 24.0 deg. C

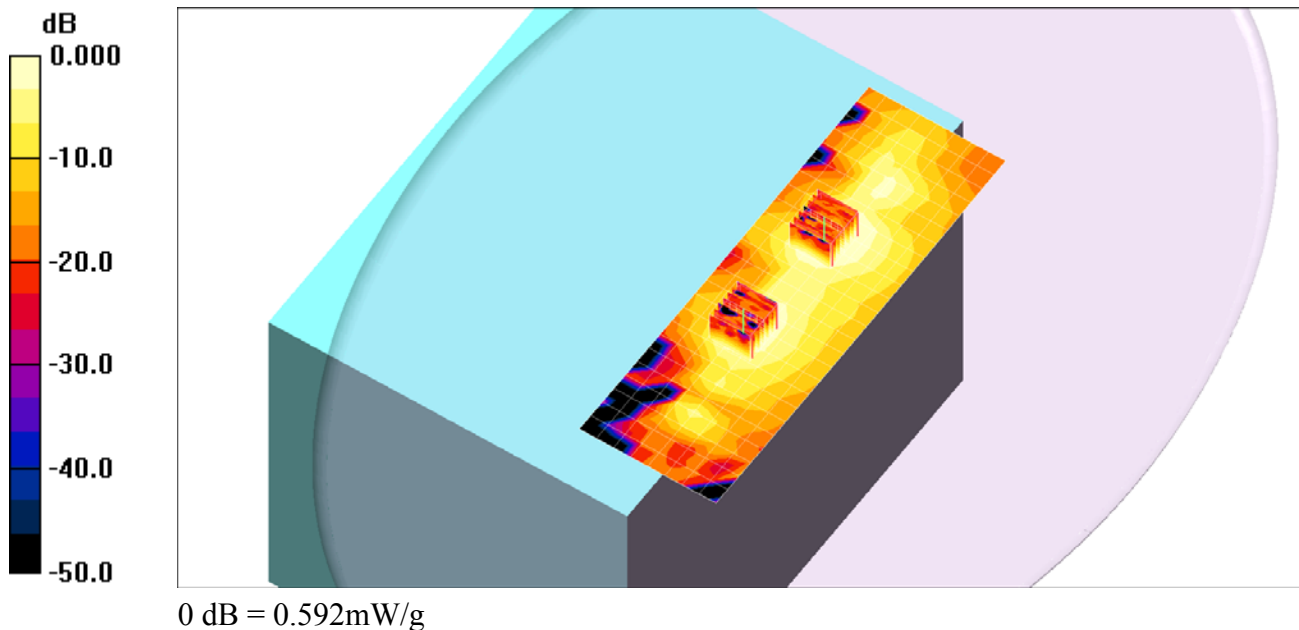
DASY4 Configuration:

- Area Scan setting - Find Secondary Maximum Within: 2.0 dB and with a peak SAR value greater than 0.0012W/kg
- Probe: EX3DV4 - SN3749; ConvF(3.36, 3.36, 3.36); Calibrated: 12/13/2010
- Sensor-Surface: 2.5mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn427; Calibrated: 7/21/2010
- Phantom: Flat Phantom ELI4.0; Type: QDOVA001BA; Serial: SN:1003
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

802.11a_ch 120_M&A Ant/Area Scan (9x26x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (measured) = 0.840 mW/g

802.11a_ch 120_M&A Ant/Zoom Scan (7x7x9)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2.5mm
Reference Value = 13.3 V/m; Power Drift = -0.109 dB
Peak SAR (extrapolated) = 1.57 W/kg
SAR(1 g) = 0.573 mW/g; SAR(10 g) = 0.218 mW/g
Maximum value of SAR (measured) = 0.959 mW/g

802.11a_ch 120_M&A Ant/Zoom Scan 1 (7x7x9)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2.5mm
Reference Value = 13.3 V/m; Power Drift = -0.109 dB
Peak SAR (extrapolated) = 1.03 W/kg
SAR(1 g) = 0.369 mW/g; SAR(10 g) = 0.141 mW/g
Maximum value of SAR (measured) = 0.592 mW/g



Test Laboratory: UL CCS

5.5 GHz_Laptop Mode

DUT: Samsung; Type: NA; Serial: CZGU93CB200090M

Communication System: 802.11abgn; Frequency: 5700 MHz; Duty Cycle: 1:1
Medium parameters used: $f = 5700$ MHz; $\sigma = 6.09$ mho/m; $\epsilon_r = 49$; $\rho = 1000$ kg/m³
Phantom section: Flat Section

Room Ambient Temperature: 25.0 deg. C; Liquid Temperature: 24.0 deg. C

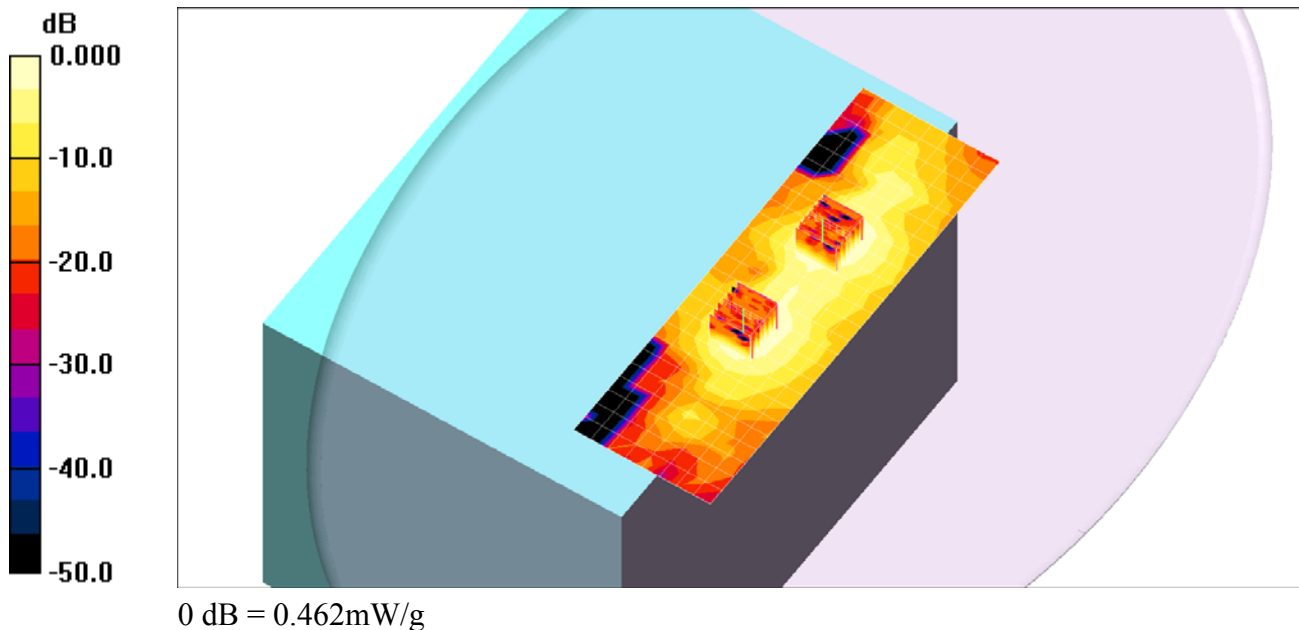
DASY4 Configuration:

- Area Scan setting - Find Secondary Maximum Within: 2.0 dB and with a peak SAR value greater than 0.0012W/kg
- Probe: EX3DV4 - SN3749; ConvF(3.65, 3.65, 3.65); Calibrated: 12/13/2010
- Sensor-Surface: 2.5mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn427; Calibrated: 7/21/2010
- Phantom: Flat Phantom ELI4.0; Type: QDOVA001BA; Serial: SN:1003
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

802.11a_ch 140_M&A Ant/Area Scan (9x26x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (measured) = 0.612 mW/g

802.11a_ch 140_M&A Ant/Zoom Scan (7x7x9)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2.5mm
Reference Value = 10.8 V/m; Power Drift = 0.114 dB
Peak SAR (extrapolated) = 1.10 W/kg
SAR(1 g) = 0.364 mW/g; SAR(10 g) = 0.138 mW/g
Maximum value of SAR (measured) = 0.589 mW/g

802.11a_ch 140_M&A Ant/Zoom Scan 1 (7x7x9)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2.5mm
Reference Value = 10.8 V/m; Power Drift = 0.114 dB
Peak SAR (extrapolated) = 0.868 W/kg
SAR(1 g) = 0.286 mW/g; SAR(10 g) = 0.114 mW/g
Maximum value of SAR (measured) = 0.462 mW/g



Test Laboratory: UL CCS

5.5 GHz_Laptop Mode

DUT: Samsung; Type: NA; Serial: CZGU93CB200090M

Communication System: 802.11abgn; Frequency: 5700 MHz; Duty Cycle: 1:1
 Medium parameters used: $f = 5700$ MHz; $\sigma = 6.09$ mho/m; $\epsilon_r = 49$; $\rho = 1000$ kg/m³
 Phantom section: Flat Section

Room Ambient Temperature: 25.0 deg. C; Liquid Temperature: 24.0 deg. C

DASY4 Configuration:

- Area Scan setting - Find Secondary Maximum Within: 2.0 dB and with a peak SAR value greater than 0.0012W/kg
- Probe: EX3DV4 - SN3749; ConvF(3.65, 3.65, 3.65); Calibrated: 12/13/2010
- Sensor-Surface: 2.5mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn427; Calibrated: 7/21/2010
- Phantom: Flat Phantom ELI4.0; Type: QDOVA001BA; Serial: SN:1003
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

802.11n HT20_ch 140_M&A Ant/Area Scan (9x26x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (measured) = 0.601 mW/g

802.11n HT20_ch 140_M&A Ant/Zoom Scan (7x7x9)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2.5mm

Reference Value = 10.8 V/m; Power Drift = 0.118 dB

Peak SAR (extrapolated) = 1.31 W/kg

SAR(1 g) = 0.438 mW/g; SAR(10 g) = 0.213 mW/g

Maximum value of SAR (measured) = 0.662 mW/g

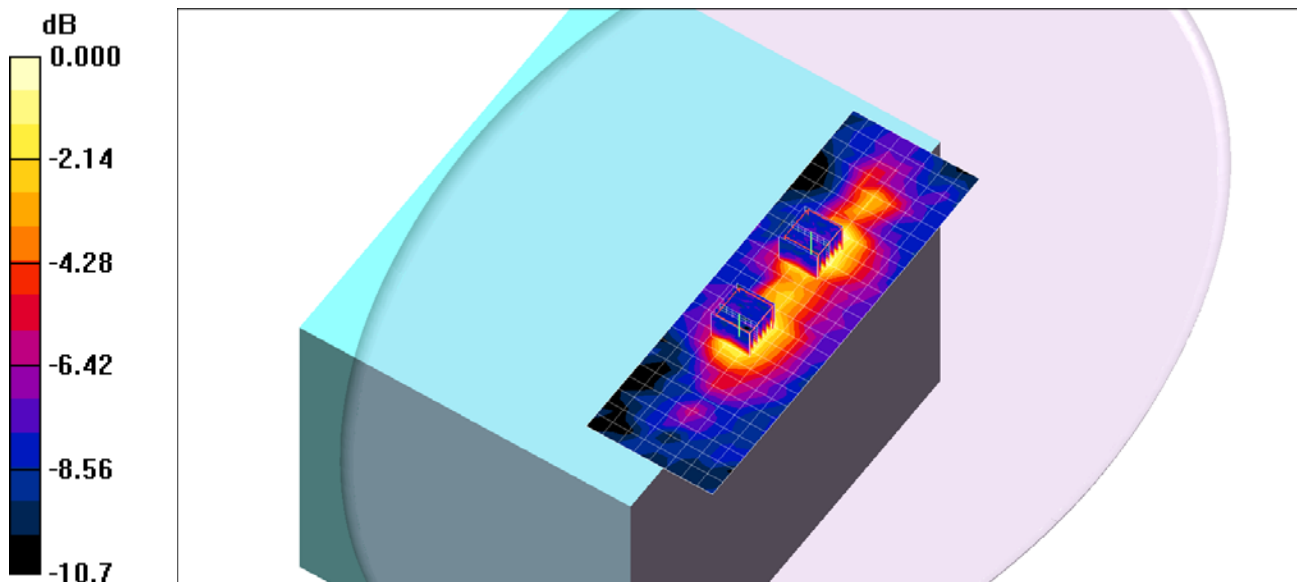
802.11n HT20_ch 140_M&A Ant/Zoom Scan 1 (7x7x9)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2.5mm

Reference Value = 10.8 V/m; Power Drift = 0.118 dB

Peak SAR (extrapolated) = 0.980 W/kg

SAR(1 g) = 0.385 mW/g; SAR(10 g) = 0.205 mW/g

Maximum value of SAR (measured) = 0.570 mW/g



0 dB = 0.570mW/g

Test Laboratory: UL CCS

5.5 GHz_Laptop Mode

DUT: Samsung; Type: NA; Serial: CZGU93CB200090M

Communication System: 802.11abgn; Frequency: 5670 MHz; Duty Cycle: 1:1

Medium parameters used (interpolated): $f = 5670$ MHz; $\sigma = 6.04$ mho/m; $\epsilon_r = 49$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Room Ambient Temperature: 25.0 deg. C; Liquid Temperature: 24.0 deg. C

DASY4 Configuration:

- Area Scan setting - Find Secondary Maximum Within: 2.0 dB and with a peak SAR value greater than 0.0012W/kg
- Probe: EX3DV4 - SN3749; ConvF(3.36, 3.36, 3.36); Calibrated: 12/13/2010
- Sensor-Surface: 2.5mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn427; Calibrated: 7/21/2010
- Phantom: Flat Phantom ELI4.0; Type: QDOVA001BA; Serial: SN:1003
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

802.11n HT40_ch 134_M&A Ant/Area Scan (9x26x1): Measurement grid: dx=10mm, dy=10mm

[Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (measured) = 0.884 mW/g

802.11n HT40_ch 134_M&A Ant/Zoom Scan (7x7x9)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2.5mm

Reference Value = 13.5 V/m; Power Drift = 0.103 dB

Peak SAR (extrapolated) = 1.67 W/kg

SAR(1 g) = 0.575 mW/g; SAR(10 g) = 0.201 mW/g

[Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (measured) = 0.948 mW/g

802.11n HT40_ch 134_M&A Ant/Zoom Scan 1 (7x7x9)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2.5mm

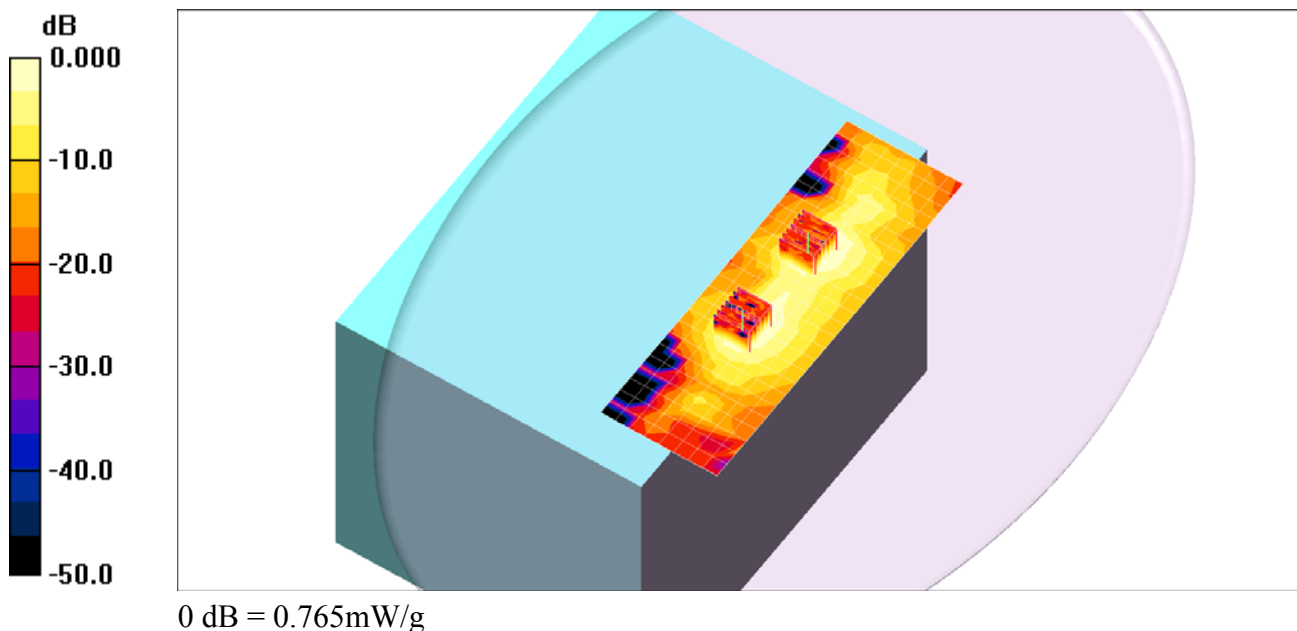
Reference Value = 13.5 V/m; Power Drift = 0.103 dB

Peak SAR (extrapolated) = 1.36 W/kg

SAR(1 g) = 0.481 mW/g; SAR(10 g) = 0.189 mW/g

[Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (measured) = 0.765 mW/g



Test Laboratory: UL CCS

5.8 GHz_Laptop Mode

DUT: Samsung; Type: NA; Serial: CZGU93CB200090M

Communication System: 802.11abgn; Frequency: 5745 MHz; Duty Cycle: 1:1

Medium parameters used (interpolated): $f = 5745$ MHz; $\sigma = 6.15$ mho/m; $\epsilon_r = 48.9$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Room Ambient Temperature: 25.0 deg. C; Liquid Temperature: 24.0 deg. C

DASY4 Configuration:

- Area Scan setting - Find Secondary Maximum Within: 2.0 dB and with a peak SAR value greater than 0.0012W/kg
- Probe: EX3DV4 - SN3749; ConvF(3.65, 3.65, 3.65); Calibrated: 12/13/2010
- Sensor-Surface: 2.5mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn427; Calibrated: 7/21/2010
- Phantom: Flat Phantom ELI4.0; Type: QDOVA001BA; Serial: SN:1003
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

802.11a_ch 149_M&A Ant/Area Scan (9x26x1): Measurement grid: dx=10mm, dy=10mm[Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (measured) = 0.585 mW/g

802.11a_ch 149_M&A Ant/Zoom Scan (7x7x9)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2.5mm

Reference Value = 10.6 V/m; Power Drift = 0.153 dB

Peak SAR (extrapolated) = 1.09 W/kg

SAR(1 g) = 0.362 mW/g; SAR(10 g) = 0.127 mW/g[Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (measured) = 0.610 mW/g

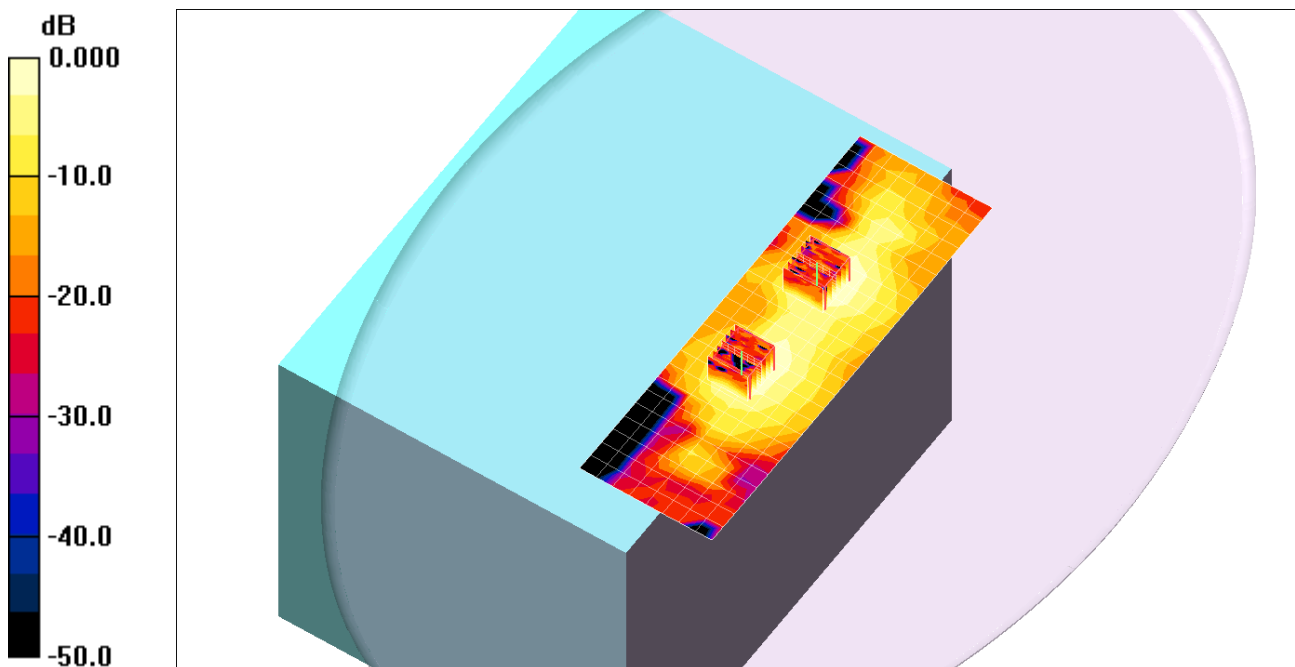
802.11a_ch 149_M&A Ant/Zoom Scan 1 (7x7x9)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2.5mm

Reference Value = 10.6 V/m; Power Drift = 0.153 dB

Peak SAR (extrapolated) = 0.896 W/kg

SAR(1 g) = 0.310 mW/g; SAR(10 g) = 0.117 mW/g[Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (measured) = 0.511 mW/g



0 dB = 0.511mW/g

Test Laboratory: UL CCS

5.8 GHz_Laptop Mode

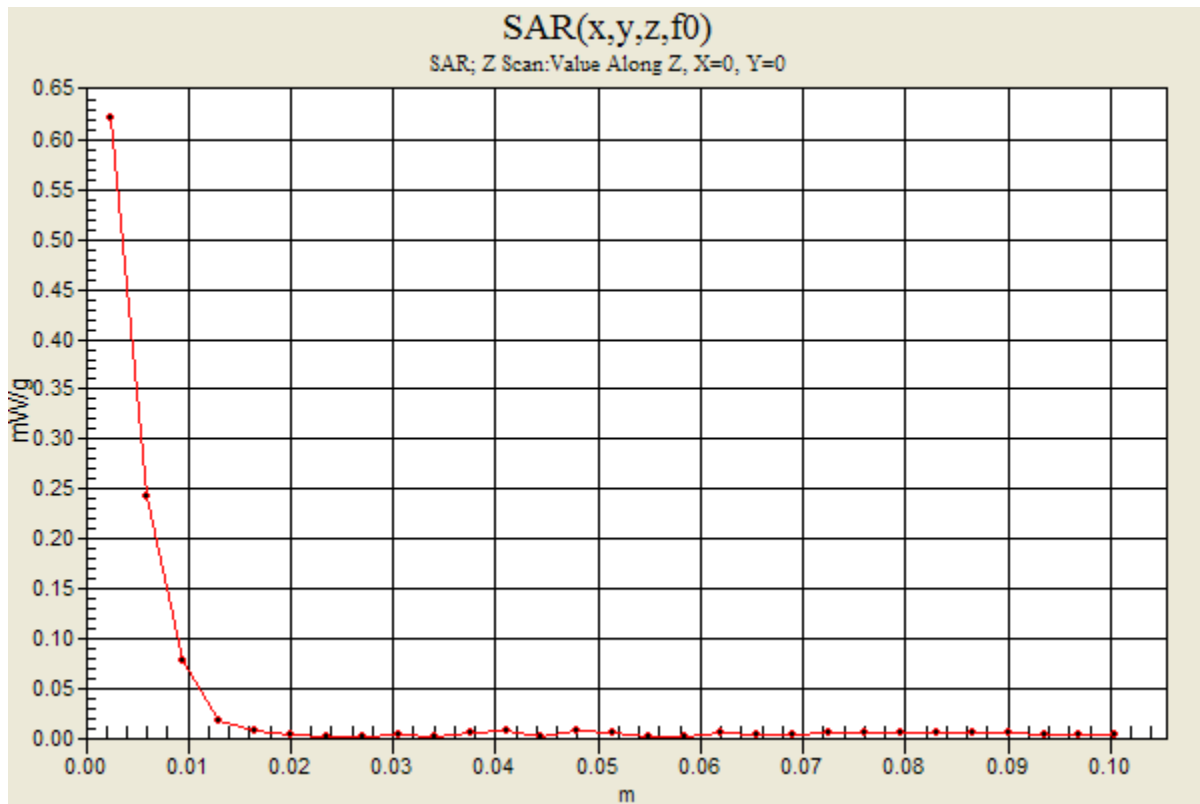
DUT: Samsung; Type: NA; Serial: CZGU93CB200090M

Communication System: 802.11abgn; Frequency: 5785 MHz; Frequency: 5745 MHz; Duty Cycle: 1:1

802.11a_ch 149_M&A Ant/Z Scan (1x1x29): Measurement grid: dx=20mm, dy=20mm, dz=3.5mm

Info: [Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (measured) = 0.622 mW/g



Test Laboratory: UL CCS

5.8 GHz_Laptop Mode

DUT: Samsung; Type: NA; Serial: CZGU93CB200090M

Communication System: 802.11abgn; Frequency: 5785 MHz; Duty Cycle: 1:1

Medium parameters used (interpolated): $f = 5785$ MHz; $\sigma = 6.21$ mho/m; $\epsilon_r = 48.8$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Room Ambient Temperature: 25.0 deg. C; Liquid Temperature: 24.0 deg. C

DASY4 Configuration:

- Area Scan setting - Find Secondary Maximum Within: 2.0 dB and with a peak SAR value greater than 0.0012W/kg
- Probe: EX3DV4 - SN3749; ConvF(3.65, 3.65, 3.65); Calibrated: 12/13/2010
- Sensor-Surface: 2.5mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn427; Calibrated: 7/21/2010
- Phantom: Flat Phantom ELI4.0; Type: QDOVA001BA; Serial: SN:1003
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

802.11a_ch 157_M&A Ant/Area Scan (9x26x1): Measurement grid: dx=10mm, dy=10mm

[Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (measured) = 0.493 mW/g

802.11a_ch 157_M&A Ant/Zoom Scan (7x7x9)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2.5mm

Reference Value = 9.70 V/m; Power Drift = 0.148 dB

Peak SAR (extrapolated) = 1.03 W/kg

SAR(1 g) = 0.330 mW/g; SAR(10 g) = 0.117 mW/g

[Info: Interpolated medium parameters used for SAR evaluation..](#)

Maximum value of SAR (measured) = 0.560 mW/g

802.11a_ch 157_M&A Ant/Zoom Scan 1 (7x7x9)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2.5mm

Reference Value = 9.70 V/m; Power Drift = 0.148 dB

Peak SAR (extrapolated) = 0.790 W/kg

SAR(1 g) = 0.250 mW/g; SAR(10 g) = 0.094 mW/g

[Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (measured) = 0.420 mW/g

