

**APPENDIX A: SAR TEST PLOTS**

# ELEMENT

**DUT: BCGA2117; Type: Head Mounted Device; Serial: YWQ4M6TVH0**

Communication System: UID:10415 - AAA, WLAN; MAIA: Y; Frequency: 2462.0 MHz  
Medium: 2450 Head; Medium parameters used:  
f = 2462.0 MHz; cond = 1.86 S/m; perm = 40.6; density = 1000 kg/m<sup>3</sup>  
Phantom Section: Facedown; Space: 0.00 mm

Test Date: 03/28/2023; Ambient Temp: 22.2°C; Tissue Temp: 21.2°C

Probe: EX3DV4 - SN7427; ConvF:(7.42,7.42,7.42); Calibrated: 2023-02-13  
Sensor-Surface: 3.0mm (VMS + 6p)  
Electronics: DAE4 Sn1403; Calibrated: 2023-02-15  
Phantom: SAM-FaceDown V10.0; Serial: 1046  
Measurement SW: DASY Module SAR V16.2.0.1425

## **Mode IEEE 802.11b, 22 MHz Bandwidth, Antenna 2 Variant 1, Head SAR, Ch. 11, 1 Mbps**

**Volume Scan (98.5 x 84.6):** Measurement grid: dx=10 mm, dy=10 mm

**Zoom Scan (30.0 x 30.0 x 30.0):** Measurement grid: dx=5.0 mm, dy=5.0 mm, dz=1.5 mm; Graded Ratio: 1.5

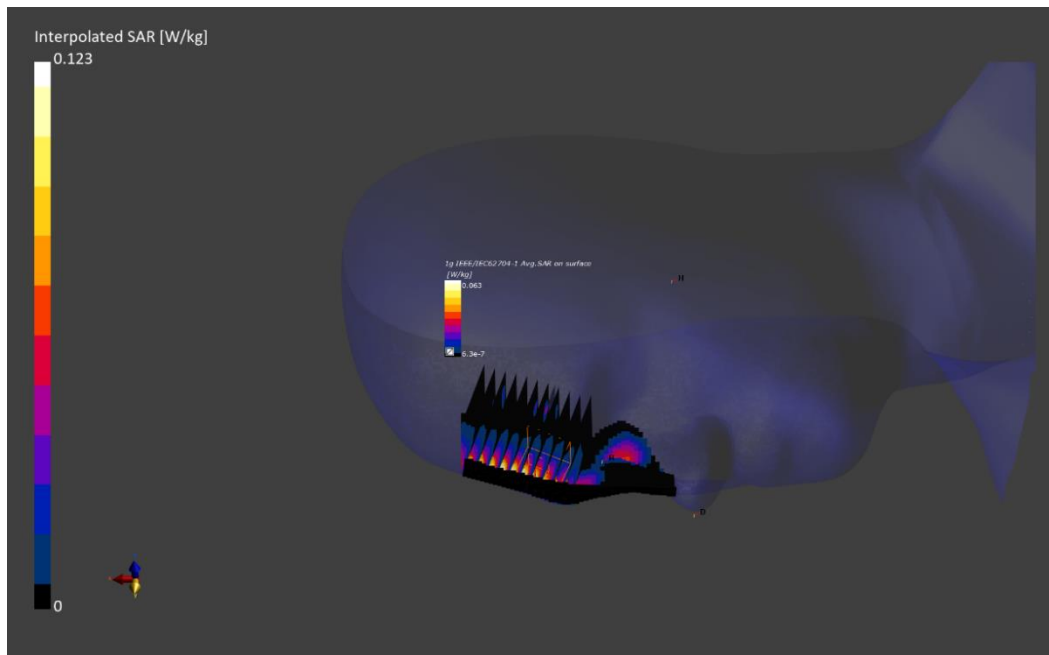
Reference Value = 0.06 W/kg; Power Drift = -0.02 dB

Peak SAR (extrapolated) = 0.123 W/kg

**SAR(1 g) = 0.071 W/kg;**

Smallest distance from peaks to all points 3 dB below is 11.4 mm

Ratio of SAR at M2 to SAR at M1 = 85.6 %



# ELEMENT

**DUT: BCGA2117; Type: Head Mounted Device; Serial: YWQ4M6TVH0**

Communication System: UID:10117 - CAD, WLAN; MAIA: Y; Frequency: 5795.0 MHz  
Medium: 5200-5800 Head; Medium parameters used:  
f = 5795.0 MHz; cond = 5.36 S/m; perm = 34.0; density = 1000 kg/m<sup>3</sup>  
Phantom Section: Facedown; Space: 0.00 mm

Test Date: 03/13/2023; Ambient Temp: 21.5°C; Tissue Temp: 20.2°C

Probe: EX3DV4 - SN7427; ConvF:(4.8,4.8,4.8); Calibrated: 2023-02-13  
Sensor-Surface: 3.0mm (VMS + 6p)  
Electronics: DAE4 Sn1403; Calibrated: 2023-02-15  
Phantom: SAM-FaceDown V10.0; Serial: 1046  
Measurement SW: DASY Module SAR V16.2.0.1425

**Mode: IEEE 801.11n, 40 MHz Bandwidth, UNII-3, Antenna 1  
Variant 1, Ch. 159, Head SAR, 13.5 Mbps**

**Volume Scan (85.3 x 75.3):** Measurement grid: dx=10 mm, dy=10 mm

**Zoom Scan (22.0 x 22.0 x 22.0):** Measurement grid: dx=4.0 mm, dy=4.0 mm, dz=1.4 mm; Graded Ratio: 1.4

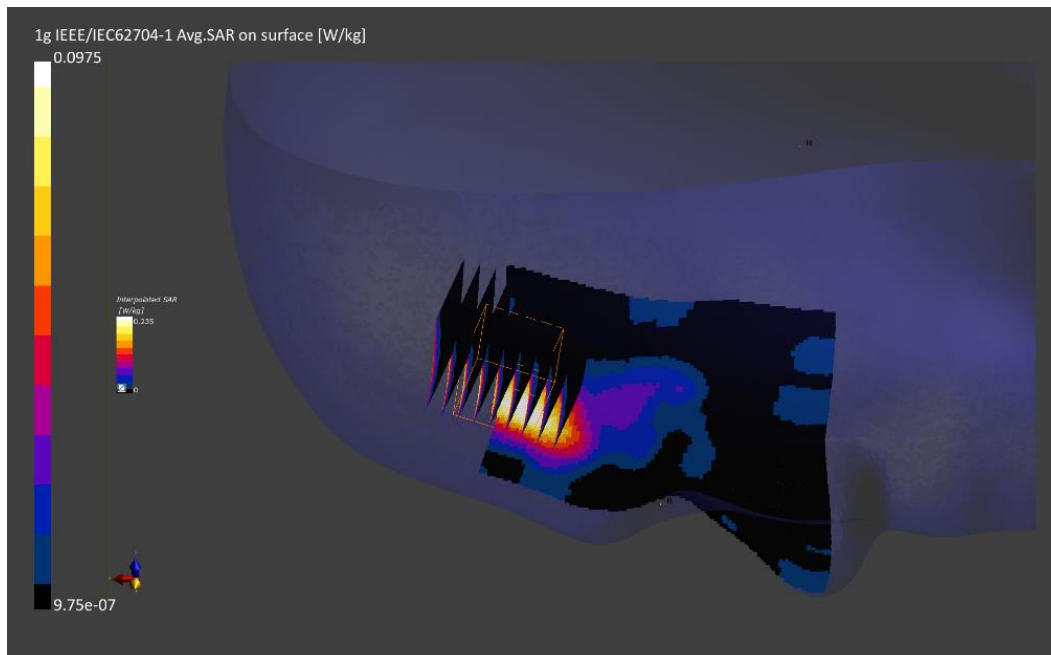
Reference Value = 0.01 W/kg; Power Drift = -0.04 dB

Peak SAR (extrapolated) = 0.235 W/kg

**SAR(1 g) = 0.073 W/kg**

Smallest distance from peaks to all points 3 dB below is 10.9 mm

Ratio of SAR at M2 to SAR at M1 = 68.1 %



# ELEMENT

**DUT: BCGA2117; Type: Head Mounted Device; Serial: LV9GDP4QDX**

Communication System: UID:10032 - CAA, Bluetooth; MAIA: Y; Frequency: 2402.0 MHz

Medium: 2450 Head; Medium parameters used:

f = 2402.0 MHz; cond = 1.83 S/m; perm = 40.0; density = 1000 kg/m<sup>3</sup>

Phantom Section: Facedown; Space: 0.00 mm

Test Date: 03/01/2023; Ambient Temp: 22.2°C; Tissue Temp: 19.5°C

Probe: EX3DV4 - SN7427; ConvF:(7.42,7.42,7.42); Calibrated: 2023-02-13

Sensor-Surface: 3.0mm (VMS + 6p)

Electronics: DAE4 Sn1403; Calibrated: 2023-02-15

Phantom: SAM-FaceDown V10.0; Serial: 1046

Measurement SW: DASY Module SAR V16.2.0.1425

**Mode: Bluetooth, Antenna 2, Variant 2, Head SAR, Ch.0, 1Mbps**

**Volume Scan (81.9 x 67.6):** Measurement grid: dx=10 mm, dy=10 mm

**Zoom Scan (30.0 x 30.0 x 30.0):** Measurement grid: dx=5.0 mm, dy=5.0 mm, dz=1.5 mm; Graded Ratio: 1.5

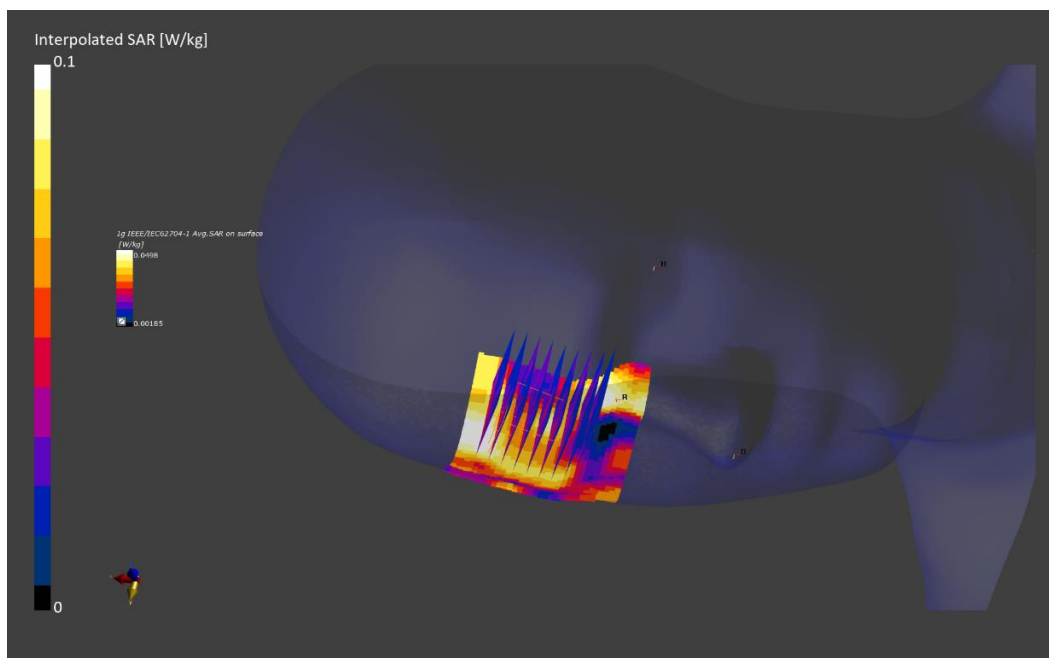
Reference Value = 0.03 W/kg; Power Drift = -0.02 dB

Peak SAR (extrapolated) = 0.070 W/kg

**SAR(1 g) = 0.046 W/kg;**

Smallest distance from peaks to all points 3 dB below is 16.2 mm

Ratio of SAR at M2 to SAR at M1 = 97.7 %



# ELEMENT

**DUT: BCGA2117; Type: Head Mounted Device; Serial: LV9GDP4QDX**

Communication System: UID:10032 - CAA, CW; MAIA: Y; Frequency: 5731.0 MHz  
Medium: 5200-5800 Head; Medium parameters used:  
f = 5731.0 MHz; cond = 5.29 S/m; perm = 34.1; density = 1000 kg/m<sup>3</sup>  
Phantom Section: Facedown; Space: 0.00 mm

Test Date: 03/13/2023; Ambient Temp: 21.5°C; Tissue Temp: 20.2°C

Probe: EX3DV4 - SN7427; ConvF:(4.8,4.8,4.8); Calibrated: 2023-02-13  
Sensor-Surface: 3.0mm (VMS + 6p)  
Electronics: DAE4 Sn1403; Calibrated: 2023-02-15  
Phantom: SAM-FaceDown V10.0; Serial: 1046  
Measurement SW: DASYS Module SAR V16.2.0.1425

**Mode: NB UNII-3, Antenna NB UNII\_L (5 GHz), Variant 2, Head SAR, Low Ch**

**Volume Scan (89.4 x 72.7):** Measurement grid: dx=5 mm, dy=5 mm

**Zoom Scan (22.0 x 22.0 x 22.0):** Measurement grid: dx=4.0 mm, dy=4.0 mm, dz=1.4 mm; Graded Ratio: 1.4

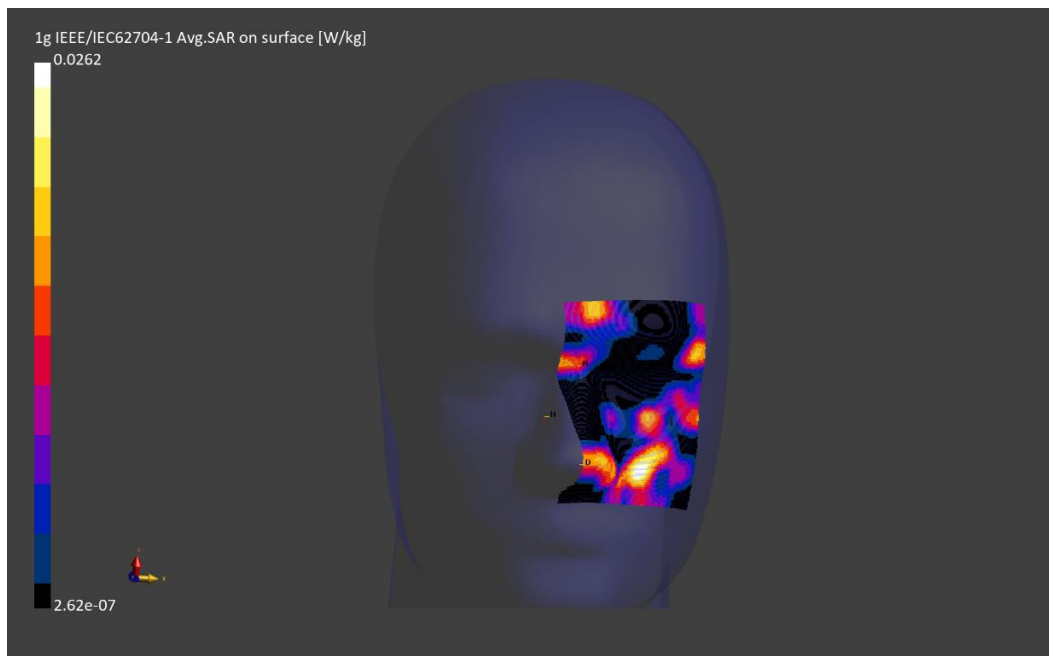
Reference Value = 0.00 W/kg; Power Drift = 0.00 dB

Peak SAR (extrapolated) = 0.093 W/kg

**SAR(1 g) = 0.03 W/kg;**

Smallest distance from peaks to all points 3 dB below is N/A

Ratio of SAR at M2 to SAR at M1 = 83.7 %



# ELEMENT

**DUT: BCGA2117; Type: Head Mounted Device; Serial: YWQ4M6TVH0**

Communication System: UID:10415 - AAA, WLAN; MAIA: Y; Frequency: 2417.0 MHz

Medium: 2450 Head; Medium parameters used:

f = 2417.0 MHz; cond = 1.83 S/m; perm = 38.7; density = 1000 kg/m<sup>3</sup>

Phantom Section: Flat; Space: 0.00 mm

Test Date: 03/02/2023; Ambient Temp: 19.0°C; Tissue Temp: 19.0°C

Probe: EX3DV4 - SN3949; ConvF:(7.87,7.87,7.87); Calibrated: 2022-09-19

Sensor-Surface: 1.4mm (VMS + 6p)

Electronics: DAE4 Sn1684; Calibrated: 2022-09-15

Phantom: Twin-SAM V8.0; Serial: 1598

Measurement SW: DASY Module SAR V16.2.0.1425

**Mode: IEEE 802.11b, 22 MHz Bandwidth, Antenna 1  
Variant 1, Extremity SAR, Ch. 2, 1 Mbps**

**Area Scan (80.0 x 120.0):** Measurement grid: dx=10.0 mm, dy=10.0 mm

**Zoom Scan (30.0 x 30.0 x 30.0):** Measurement grid: dx=4.9 mm, dy=4.9 mm, dz=1.5 mm; Graded Ratio: 1.5

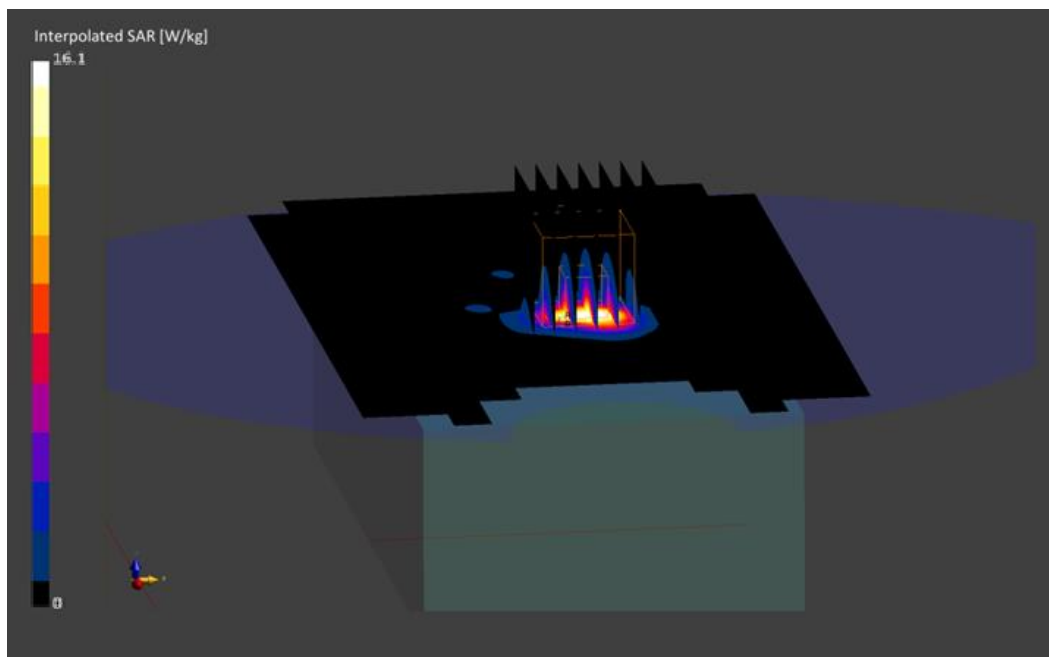
Reference Value = 9.03 W/kg; Power Drift = -0.07 dB

Peak SAR (extrapolated) = 16.1 W/kg

**SAR(10 g) = 2.25 W/kg**

Smallest distance from peaks to all points 3 dB below is 6.6 mm

Ratio of SAR at M2 to SAR at M1 = 73.0 %



# ELEMENT

**DUT: BCGA2117; Type: Head Mounted Device; Serial: M99429MXDC**

Communication System: UID:10117 - CAD, WLAN; MAIA: Y; Frequency: 5230.0 MHz

Medium: 5200-5800 Head; Medium parameters used:

f = 5230.0 MHz; cond = 4.75 S/m; perm = 35.9; density = 1000 kg/m<sup>3</sup>

Phantom Section: Flat; Space: 0.00 mm

Test Date: 04/12/2023; Ambient Temp: 23.9°C; Tissue Temp: 19.7°C

Probe: EX3DV4 - SN7308; ConvF:(5.61,5.61,5.61); Calibrated: 2023-02-13

Sensor-Surface: 1.4mm (VMS + 6p)

Electronics: DAE4 Sn467; Calibrated: 2023-02-15

Phantom: Twin-SAM V8.0; Serial: 1598

Measurement SW: DASY Module SAR V16.2.0.1425

**Mode: IEEE 801.11n, 40 MHz Bandwidth, UNII-1, Antenna 2  
Variant 2, Ch. 46, Extremity SAR, 13.5 Mbps**

**Area Scan (80.0 x 120.0):** Measurement grid: dx=10.0 mm, dy=10.0 mm

**Zoom Scan (22.0 x 22.0 x 22.0):** Measurement grid: dx=4.0 mm, dy=4.0 mm, dz=1.4 mm; Graded Ratio: 1.4

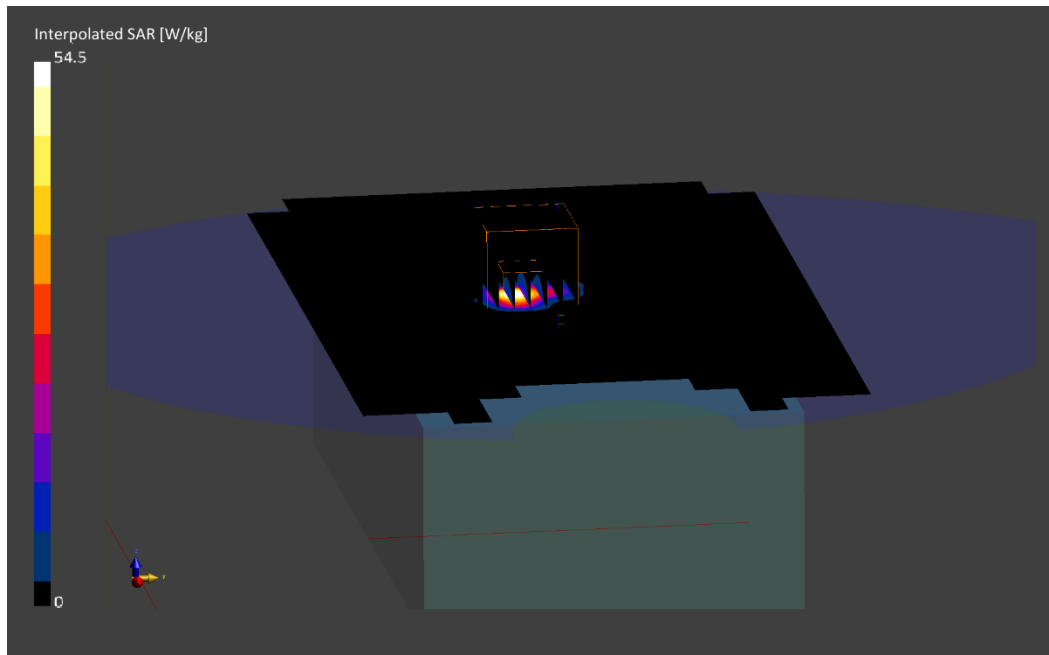
Reference Value = 17.28 W/kg; Power Drift = -0.01 dB

Peak SAR (extrapolated) = 54.5 W/kg

**SAR(10 g) = 2.76 W/kg**

Smallest distance from peaks to all points 3 dB below is 4.7 mm

Ratio of SAR at M2 to SAR at M1 = 64.7 %



# ELEMENT

**DUT: BCGA2117; Type: Head Mounted Device; Serial: YV4PVHN41T**

Communication System: UID:10032 - CAA, Bluetooth; MAIA: Y; Frequency: 2402.0 MHz

Medium: 2450 Head; Medium parameters used:

$f = 2402.0$  MHz;  $\text{cond} = 1.83$  S/m;  $\text{perm} = 38.6$ ;  $\text{density} = 1000$  kg/m<sup>3</sup>

Phantom Section: Flat; Space: 0.00 mm

Test Date: 02/28/2023; Ambient Temp: 22.3°C; Tissue Temp: 19.6°C

Probe: EX3DV4 - SN3949; ConvF:(7.87,7.87,7.87); Calibrated: 2022-09-19

Sensor-Surface: 1.4mm (VMS + 6p)

Electronics: DAE4 Sn1684; Calibrated: 2022-09-15

Phantom: Twin-SAM V8.0; Serial: 1598

Measurement SW: DASY Module SAR V16.2.0.1425

**Mode: Bluetooth, Antenna 1, Variant 2, Extremity SAR, Ch.0, 1Mbps**

**Area Scan (80.0 x 120.0):** Measurement grid:  $dx=10.0$  mm,  $dy=10.0$  mm

**Zoom Scan (30.0 x 30.0 x 30.0):** Measurement grid:  $dx=5.0$  mm,  $dy=5.0$  mm,  $dz=1.5$  mm; Graded Ratio: 1.5

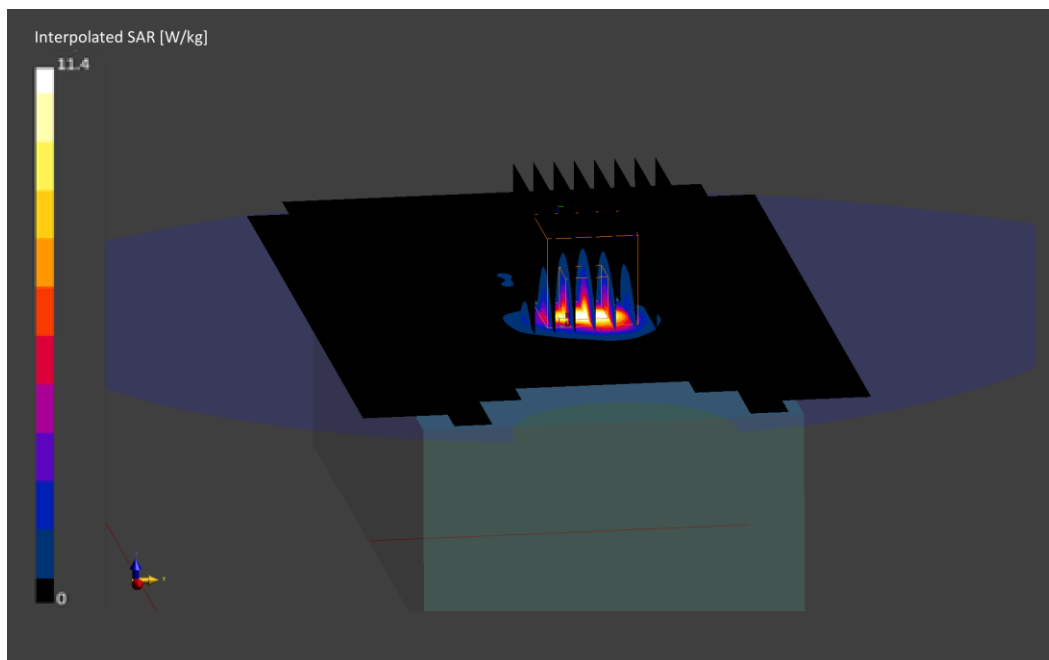
Reference Value = 6.61 W/kg; Power Drift = 0.02 dB

Peak SAR (extrapolated) = 11.4 W/kg

**SAR(10 g) = 1.59 W/kg**

Smallest distance from peaks to all points 3 dB below is 6.5 mm

Ratio of SAR at M2 to SAR at M1 = 74.3 %





# ELEMENT

**DUT: BCGA2117; Type: Head Mounted Device; Serial: YWQ4M6TVH0**

Communication System: UID:10032 - CAA, CW; MAIA: Y; Frequency: 5201.0 MHz  
Medium: 5200-5800 Head; Medium parameters used:  
f = 5201.0 MHz; cond = 4.72 S/m; perm = 36.0; density = 1000 kg/m<sup>3</sup>  
Phantom Section: Flat; Space: 0.00 mm

Test Date: 04/12/2023; Ambient Temp: 23.9°C; Tissue Temp: 19.7°C

Probe: EX3DV4 - SN7308; ConvF:(5.61,5.61,5.61); Calibrated: 2023-02-13  
Sensor-Surface: 1.4mm (VMS + 6p)  
Electronics: DAE4 Sn467; Calibrated: 2023-02-15  
Phantom: Twin-SAM V8.0; Serial: 1598  
Measurement SW: DASY Module SAR V16.2.0.1425

**Mode: NB UNII-1, Antenna NB UNII\_R (5 GHz), Variant 1, Extremity SAR, Low Ch.**

**Area Scan (80.0 x 120.0):** Measurement grid: dx=10.0 mm, dy=10.0 mm

**Zoom Scan (22.0 x 22.0 x 22.0):** Measurement grid: dx=4.0 mm, dy=4.0 mm, dz=1.4 mm; Graded Ratio: 1.4

Reference Value = 0.46 W/kg; Power Drift = -0.05 dB

Peak SAR (extrapolated) = 0.952 W/kg

**SAR(10 g) = 0.069 W/kg**

Smallest distance from peaks to all points 3 dB below is 6.6 mm

Ratio of SAR at M2 to SAR at M1 = 63.3 %

