

## APPENDIX A: SAR TEST DATA

# PCTEST

**DUT: BCGA2069; Type: Tablet Device; Serial: DLXZV01BPQLD**

Communication System: UID 0, \_GSM GPRS; 2 Tx slots; Frequency: 824.2 MHz; Duty Cycle: 1:4.15

Medium: 835 Body Medium parameters used (interpolated):

$f = 824.2$  MHz;  $\sigma = 0.966$  S/m;  $\epsilon_r = 54.718$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section; Space: 0.0 cm

Test Date: 01-16-2020; Ambient Temp: 20.4°C; Tissue Temp: 18.8°C

Probe: EX3DV4 - SN7427; ConvF(10.18, 10.18, 10.18) @ 824.2 MHz; Calibrated: 2/19/2019

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Electronics: DAE4 Sn1403; Calibrated: 2/13/2019

Phantom: Twin-SAM V4.0 Main; Type: QD 000 P40 CC; Serial: 1114

Measurement SW: DASY52, Version 52.10 (3);SEMCAD X Version 14.6.13 (7474)

**Mode: GPRS 850, Antenna 1, Body SAR, Left Edge, Low.ch, 2 Tx Slots**

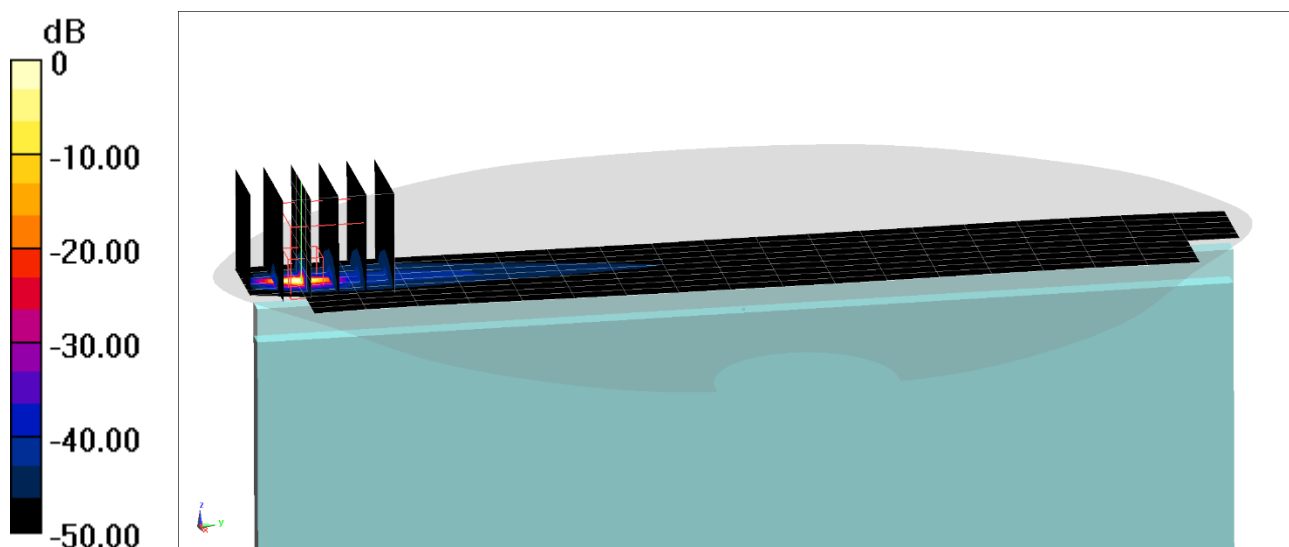
**Area Scan (10x22x1):** Measurement grid: dx=5mm, dy=15mm

**Zoom Scan (5x6x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 35.56 V/m; Power Drift = 0.04 dB

Peak SAR (extrapolated) = 6.54 W/kg

**SAR(1 g) = 1.08 W/kg; SAR(10 g) = 0.360 W/kg**



# PCTEST

**DUT: BCGA2069; Type: Tablet Device; Serial: DLXZV00BPQLD**

Communication System: UID 0, GSM GPRS; 2 Tx slots; Frequency: 1909.8 MHz; Duty Cycle: 1:4.15

Medium: 1900 Body Medium parameters used:

$f = 1910$  MHz;  $\sigma = 1.585$  S/m;  $\epsilon_r = 52.264$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section; Space: 0.0 cm

Test Date: 01-20-2020; Ambient Temp: 22.3°C; Tissue Temp: 20.0°C

Probe: EX3DV4 - SN7420; ConvF(7.64, 7.64, 7.64) @ 1909.8 MHz; Calibrated: 11/21/2019

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Electronics: DAE4 Sn1213; Calibrated: 11/13/2019

Phantom: Twin-SAM V4.0; Type: QD 000 P40 CA; Serial: 1275

Measurement SW: DASY52, Version 52.10 (3);SEMCAD X Version 14.6.13 (7474)

**Mode: GPRS 1900, Antenna 4b, Body SAR, Back side, High.ch, 2 Tx Slots**

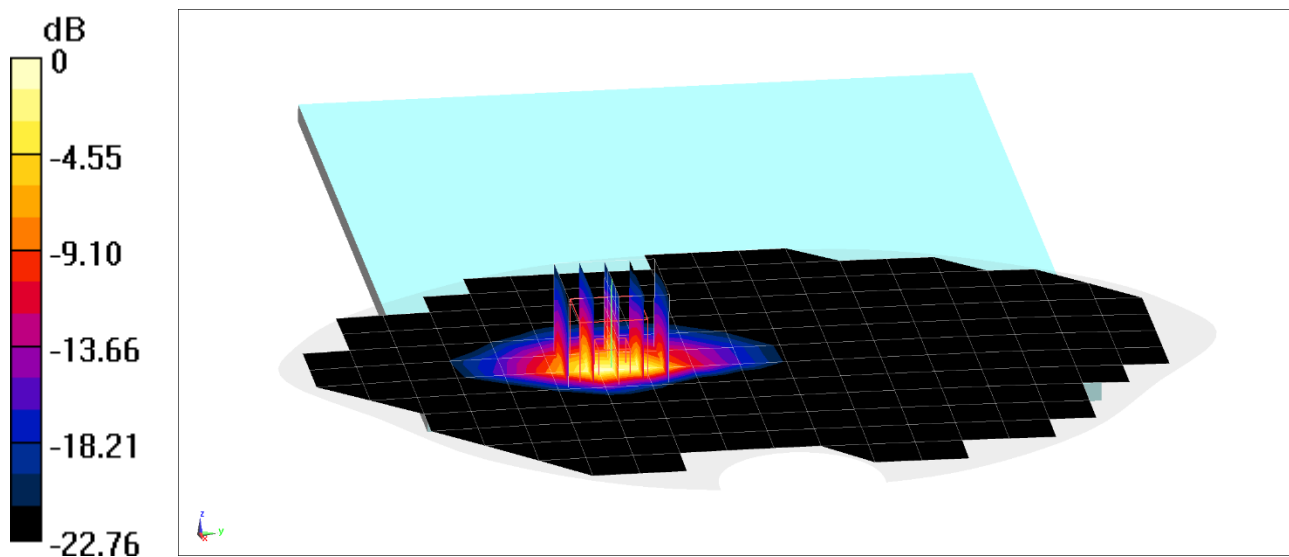
**Area Scan (15x19x1):** Measurement grid: dx=15mm, dy=15mm

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

Reference Value = 25.00 V/m; Power Drift = -0.07 dB

Peak SAR (extrapolated) = 3.00 W/kg

**SAR(1 g) = 0.983 W/kg; SAR(10 g) = 0.385 W/kg**



0 dB = 2.02 W/kg = 3.05 dBW/kg

# PCTEST

**DUT: BCGA2069; Type: Tablet Device; Serial: DLXZV01BPQLD**

Communication System: UID 0, UMTS; Frequency: 836.6 MHz; Duty Cycle: 1:1

Medium: 835 Body Medium parameters used (interpolated):

$f = 836.6 \text{ MHz}$ ;  $\sigma = 0.98 \text{ S/m}$ ;  $\epsilon_r = 54.527$ ;  $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section; Space: 0.0 cm

Test Date: 01-16-2020; Ambient Temp: 20.4°C; Tissue Temp: 18.8°C

Probe: EX3DV4 - SN7427; ConvF(10.18, 10.18, 10.18) @ 836.6 MHz; Calibrated: 2/19/2019

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Electronics: DAE4 Sn1403; Calibrated: 2/13/2019

Phantom: Twin-SAM V4.0 Main; Type: QD 000 P40 CC; Serial: 1114

Measurement SW: DASY52, Version 52.10 (3);SEMCAD X Version 14.6.13 (7474)

**Mode: UMTS 850, Antenna 1, Body SAR, Left Edge, Mid.ch**

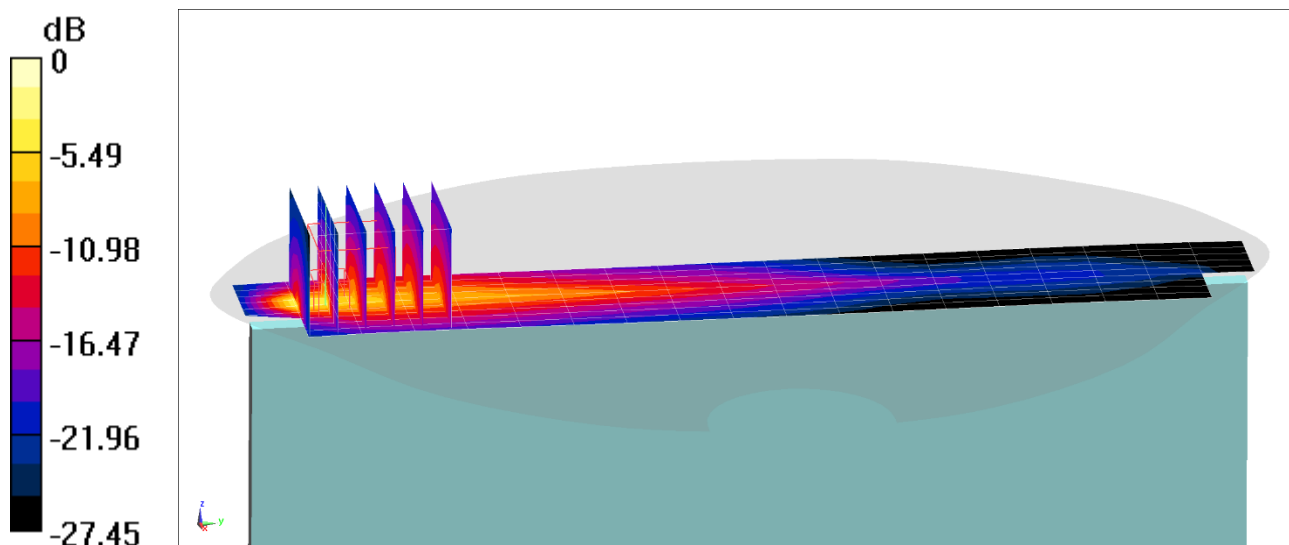
**Area Scan (10x22x1):** Measurement grid: dx=5mm, dy=15mm

**Zoom Scan (6x6x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 37.64 V/m; Power Drift = 0.02 dB

Peak SAR (extrapolated) = 7.29 W/kg

**SAR(1 g) = 1.1 W/kg; SAR(10 g) = 0.376 W/kg**



0 dB = 5.02 W/kg = 7.01 dBW/kg

# PCTEST

**DUT: BCGA2069; Type: Tablet Device; Serial: DLXZV01JPQLD**

Communication System: UID 0, UMTS; Frequency: 1732.4 MHz; Duty Cycle: 1:1

Medium: 1750 Body Medium parameters used (interpolated):

$f = 1732.4 \text{ MHz}$ ;  $\sigma = 1.49 \text{ S/m}$ ;  $\epsilon_r = 51.377$ ;  $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section; Space: 0.0 cm

Test Date: 01-28-2020; Ambient Temp: 21.9°C; Tissue Temp: 19.0°C

Probe: EX3DV4 - SN7427; ConvF(8.14, 8.14, 8.14) @ 1732.4 MHz; Calibrated: 2/19/2019

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Electronics: DAE4 Sn1403; Calibrated: 2/13/2019

Phantom: Twin-SAM V4.0 Main; Type: QD 000 P40 CC; Serial: 1114

Measurement SW: DASY52, Version 52.10 (3);SEMCAD X Version 14.6.13 (7474)

**Mode: UMTS 1750, Antenna 2a, Body SAR, Back side, Mid.ch**

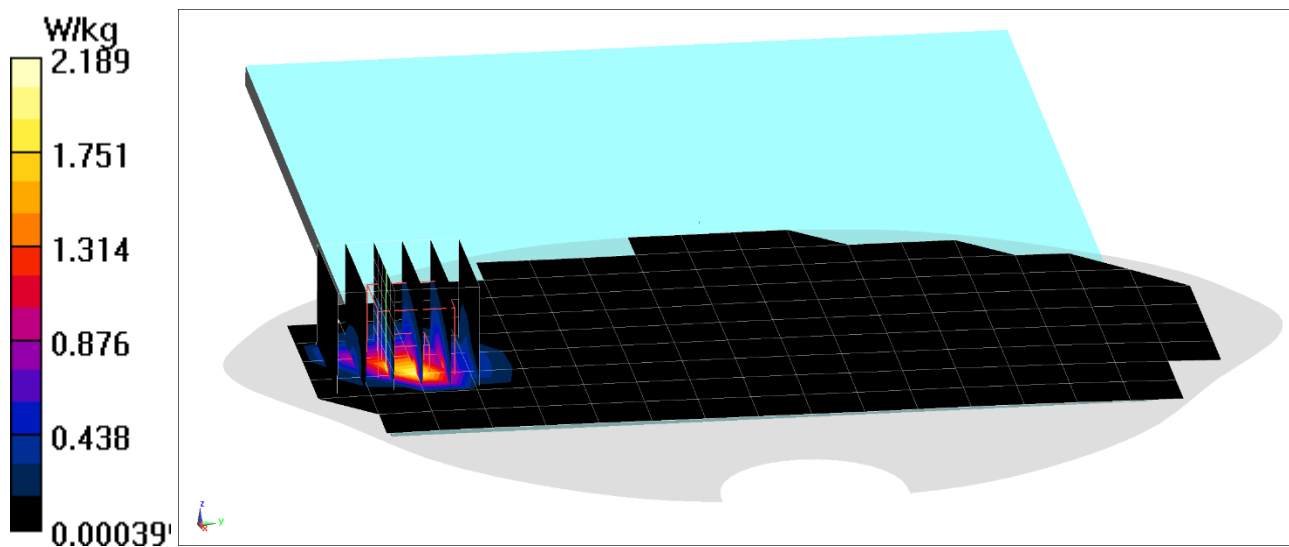
**Area Scan (11x18x1):** Measurement grid:  $dx=15\text{mm}$ ,  $dy=15\text{mm}$

**Zoom Scan (6x6x7)/Cube 0:** Measurement grid:  $dx=8\text{mm}$ ,  $dy=8\text{mm}$ ,  $dz=5\text{mm}$

Reference Value = 29.87 V/m; Power Drift = 0.12 dB

Peak SAR (extrapolated) = 3.33 W/kg

SAR(1 g) = 1.16 W/kg; SAR(10 g) = 0.555 W/kg



# PCTEST

**DUT: BCGA2069; Type: Tablet Device; Serial: DLXZV01JPQLD**

Communication System: UID 0, UMTS; Frequency: 1852.4 MHz; Duty Cycle: 1:1

Medium: 1900 Body Medium parameters used (interpolated):

$f = 1852.4 \text{ MHz}$ ;  $\sigma = 1.55 \text{ S/m}$ ;  $\epsilon_r = 51.683$ ;  $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section; Space: 0.0 cm

Test Date: 01-22-2020; Ambient Temp: 21.1°C; Tissue Temp: 20.0°C

Probe: EX3DV4 - SN7420; ConvF(7.64, 7.64, 7.64) @ 1852.4 MHz; Calibrated: 11/21/2019

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Electronics: DAE4 Sn1213; Calibrated: 11/13/2019

Phantom: Twin-SAM V4.0; Type: QD 000 P40 CA; Serial: 1275

Measurement SW: DASY52, Version 52.10 (3);SEMCAD X Version 14.6.13 (7474)

**Mode: UMTS 1900, Antenna 4a, Body SAR, Back side, Low.ch**

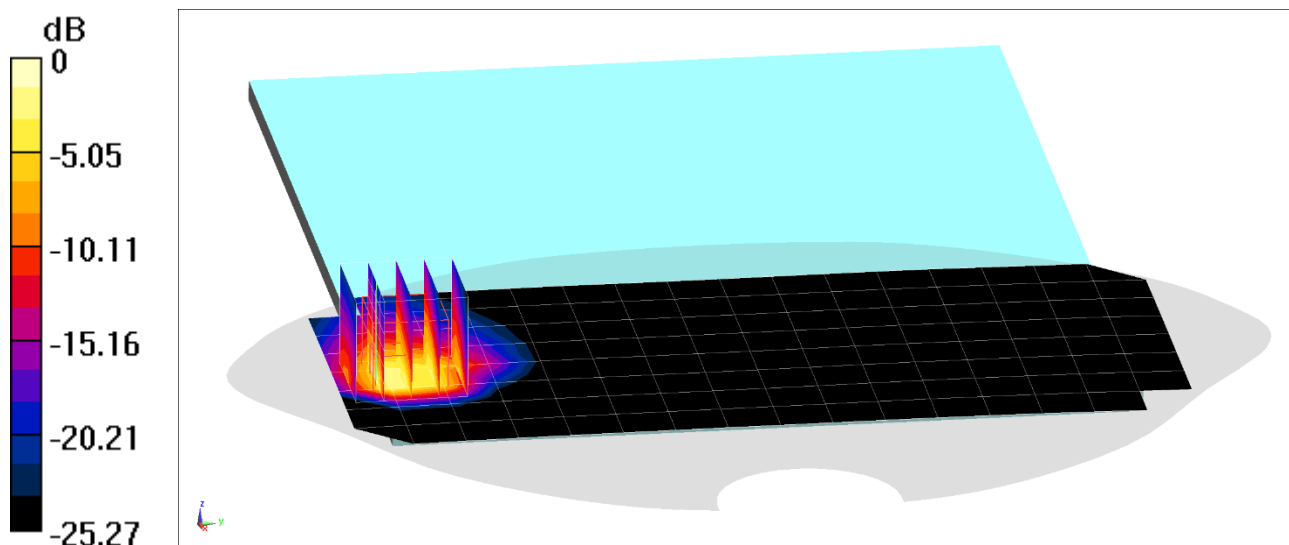
**Area Scan (9x17x1):** Measurement grid:  $dx=15\text{mm}$ ,  $dy=15\text{mm}$

**Zoom Scan (5x5x7)/Cube 0:** Measurement grid:  $dx=8\text{mm}$ ,  $dy=8\text{mm}$ ,  $dz=5\text{mm}$

Reference Value = 26.24 V/m; Power Drift = -0.01 dB

Peak SAR (extrapolated) = 4.20 W/kg

**SAR(1 g) = 1.17 W/kg; SAR(10 g) = 0.572 W/kg**



0 dB = 2.62 W/kg = 4.18 dBW/kg

# PCTEST

**DUT: BCGA2069; Type: Tablet Device; Serial: DLXZV00QPQLD**

Communication System: UID 0, LTE Band 71; Frequency: 680.5 MHz; Duty Cycle: 1:1

Medium: 750 Body Medium parameters used (interpolated):

$f = 680.5$  MHz;  $\sigma = 0.911$  S/m;  $\epsilon_r = 54.421$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section; Space: 0.0 cm

Test Date: 01-16-2020; Ambient Temp: 20.7°C; Tissue Temp: 20.7°C

Probe: EX3DV4 - SN7421; ConvF(9.66, 9.66, 9.66) @ 680.5 MHz; Calibrated: 3/18/2019

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Electronics: DAE4 Sn604; Calibrated: 3/13/2019

Phantom: Twin-SAM V4.0; Type: QD 000 P40 CD; Serial: 1736

Measurement SW: DASY52, Version 52.10 (3);SEMCAD X Version 14.6.13 (7474)

**Mode: LTE Band 71, Antenna 1, Body SAR, Left Edge, Mid.ch,  
20 MHz Bandwidth, QPSK, 1 RB, 0 RB Offset**

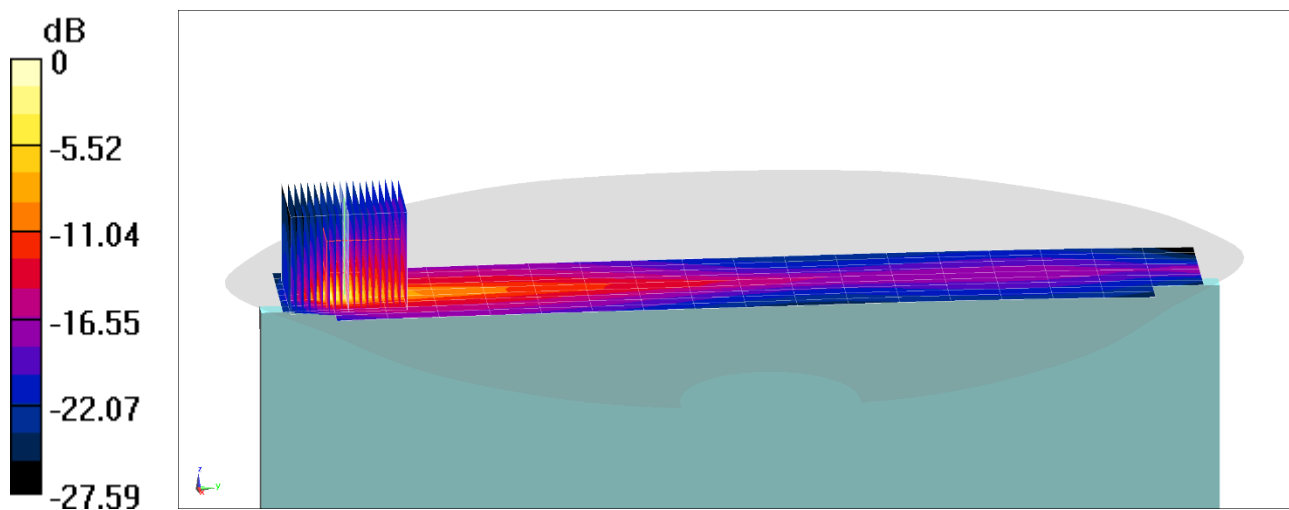
**Area Scan (10x21x1):** Measurement grid: dx=5mm, dy=15mm

**Zoom Scan (17x19x8)/Cube 0:** Measurement grid: dx=1.9mm, dy=1.9mm, dz=1.4mm; Graded Ratio: 1.4

Reference Value = 32.08 V/m; Power Drift = 0.02 dB

Peak SAR (extrapolated) = 22.7 W/kg

**SAR(1 g) = 1.12 W/kg; SAR(10 g) = 0.297 W/kg**



0 dB = 4.48 W/kg = 6.51 dBW/kg

# PCTEST

**DUT: BCGA2069; Type: Tablet Device; Serial: DLXZV00BPQLD**

Communication System: UID 0, LTE Band 12; Frequency: 707.5 MHz; Duty Cycle: 1:1

Medium: 750 Body Medium parameters used (interpolated):

$f = 707.5$  MHz;  $\sigma = 0.928$  S/m;  $\epsilon_r = 54.629$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section; Space: 0.0 cm

Test Date: 01-16-2020; Ambient Temp: 20.7°C; Tissue Temp: 20.7°C

Probe: EX3DV4 - SN7421; ConvF(9.66, 9.66, 9.66) @ 707.5 MHz; Calibrated: 3/18/2019

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Electronics: DAE4 Sn604; Calibrated: 3/13/2019

Phantom: Twin-SAM V4.0; Type: QD 000 P40 CD; Serial: 1736

Measurement SW: DASY52, Version 52.10 (3);SEMCAD X Version 14.6.13 (7474)

**Mode: LTE Band 12, Antenna 1, Body SAR, Left Edge, Mid.ch,  
10 MHz Bandwidth, QPSK, 1 RB, 0 RB Offset**

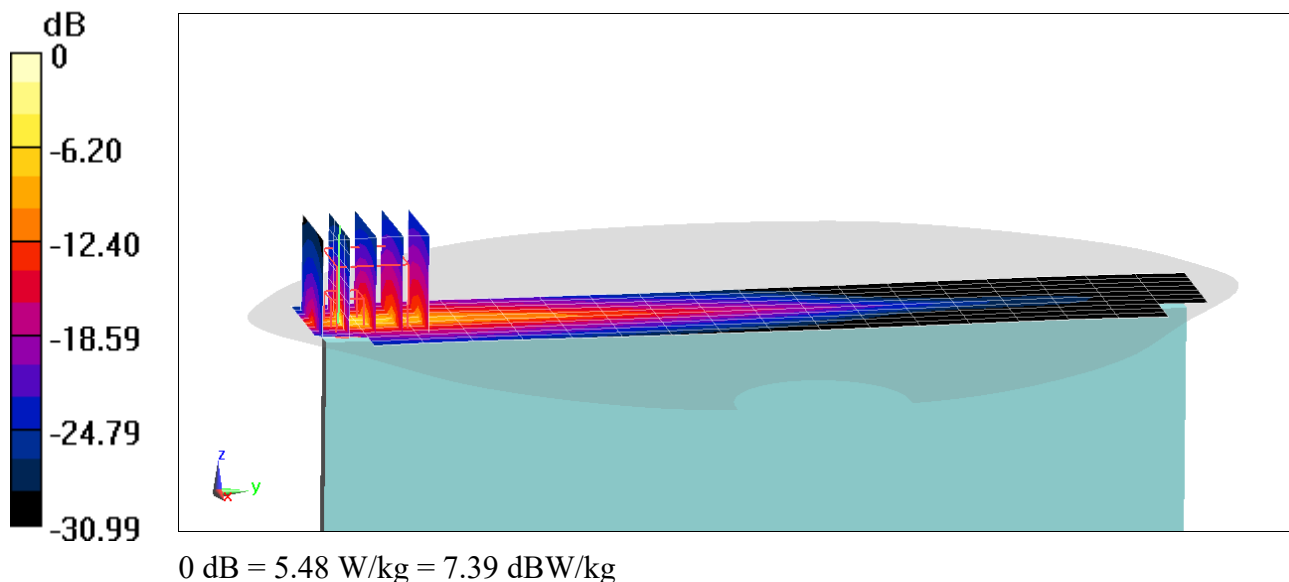
**Area Scan (11x7x1):** Measurement grid: dx=5mm, dy=15mm

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

Reference Value = 33.50 V/m; Power Drift = -0.10 dB

Peak SAR (extrapolated) = 8.44 W/kg

**SAR(1 g) = 1.15 W/kg; SAR(10 g) = 0.352 W/kg**



# PCTEST

**DUT: BCGA2069; Type: Tablet Device; Serial: DLXZV00JPQLD**

Communication System: UID 0, LTE Band 13; Frequency: 782 MHz; Duty Cycle: 1:1

Medium: 750 Body Medium parameters used (interpolated):

$f = 782 \text{ MHz}$ ;  $\sigma = 1.008 \text{ S/m}$ ;  $\epsilon_r = 53.413$ ;  $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section; Space: 0.0 cm

Test Date: 01-16-2020; Ambient Temp: 20.7°C; Tissue Temp: 20.7°C

Probe: EX3DV4 - SN7421; ConvF(9.66, 9.66, 9.66) @ 782 MHz; Calibrated: 3/18/2019

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Electronics: DAE4 Sn604; Calibrated: 3/13/2019

Phantom: Twin-SAM V4.0; Type: QD 000 P40 CD; Serial: 1736

Measurement SW: DASY52, Version 52.10 (3);SEMCAD X Version 14.6.13 (7474)

**Mode: LTE Band 13, Antenna 3, Body SAR, Back side, Mid.ch,  
10 MHz Bandwidth, QPSK, 1 RB, 0 RB Offset**

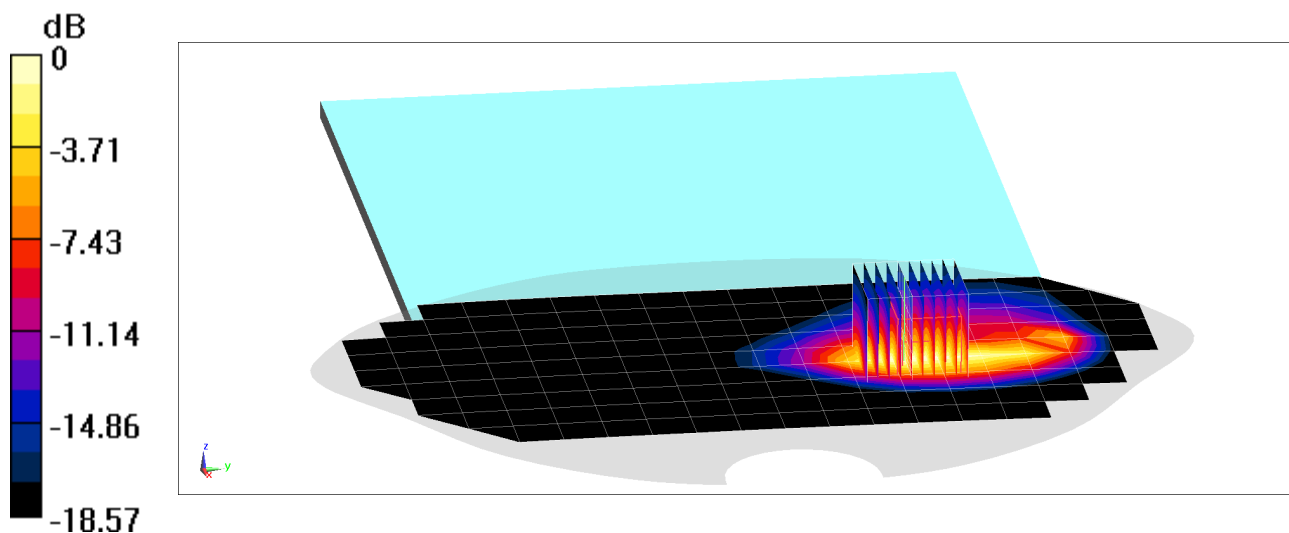
**Area Scan (10x19x1):** Measurement grid: dx=15mm, dy=15mm

**Zoom Scan (10x10x8)/Cube 0:** Measurement grid: dx=3.8mm, dy=3.8mm, dz=1.4mm; Graded Ratio: 1.4

Reference Value = 31.07 V/m; Power Drift = -0.17 dB

Peak SAR (extrapolated) = 2.80 W/kg

**SAR(1 g) = 1.06 W/kg; SAR(10 g) = 0.545 W/kg**



0 dB = 1.91 W/kg = 2.81 dBW/kg

# PCTEST

**DUT: BCGA2069; Type: Tablet Device; Serial: DLXZV01EPQLD**

Communication System: UID 0, LTE Band 14; Frequency: 793 MHz; Duty Cycle: 1:1

Medium: 750 Body Medium parameters used (interpolated):

$f = 793 \text{ MHz}$ ;  $\sigma = 1.014 \text{ S/m}$ ;  $\epsilon_r = 53.426$ ;  $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section; Space: 0.0 cm

Test Date: 01-16-2020; Ambient Temp: 20.7°C; Tissue Temp: 20.7°C

Probe: EX3DV4 - SN7421; ConvF(9.66, 9.66, 9.66) @ 793 MHz; Calibrated: 3/18/2019

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Electronics: DAE4 Sn604; Calibrated: 3/13/2019

Phantom: Twin-SAM V4.0; Type: QD 000 P40 CD; Serial: 1736

Measurement SW: DASY52, Version 52.10 (3);SEMCAD X Version 14.6.13 (7474)

**Mode: LTE Band 14, Antenna 3, Body SAR, Back side, Mid.ch,  
10 MHz Bandwidth, QPSK, 1 RB, 0 RB Offset**

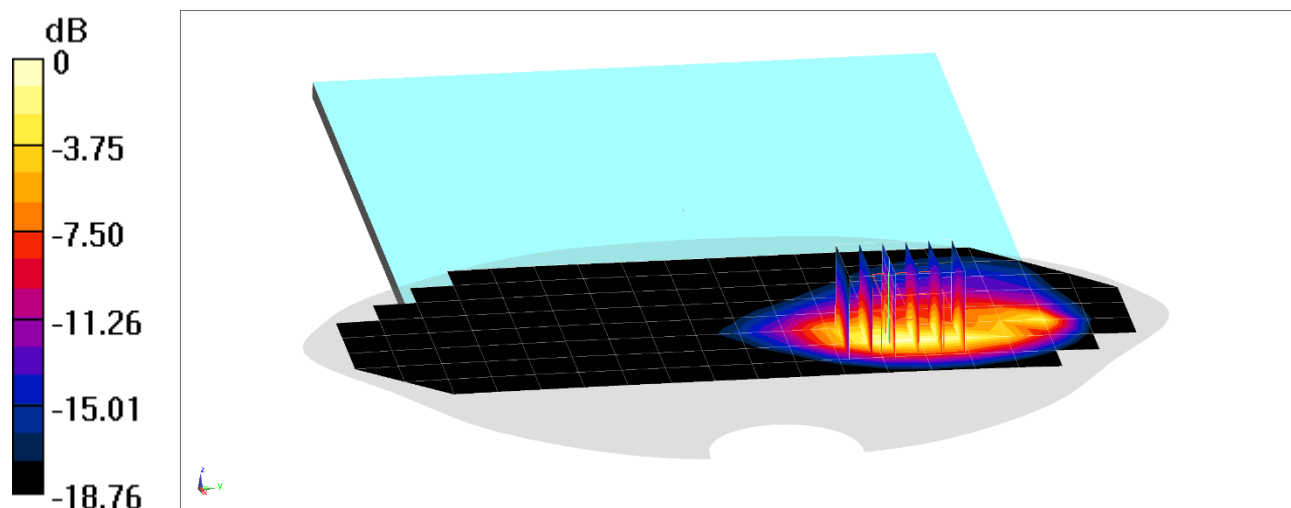
**Area Scan (9x21x1):** Measurement grid: dx=15mm, dy=15mm

**Zoom Scan (5x6x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 33.98 V/m; Power Drift = 0.02 dB

Peak SAR (extrapolated) = 2.65 W/kg

**SAR(1 g) = 1.14 W/kg; SAR(10 g) = 0.581 W/kg**



0 dB = 1.97 W/kg = 2.94 dBW/kg

# PCTEST

**DUT: BCGA2069; Type: Tablet Device; Serial: DLXZV007PQLD**

Communication System: UID 0, \_LTE Band 26; Frequency: 819 MHz; Duty Cycle: 1:1

Medium: 835 Body Medium parameters used (interpolated):

$f = 819 \text{ MHz}$ ;  $\sigma = 0.96 \text{ S/m}$ ;  $\epsilon_r = 54.799$ ;  $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section; Space: 0.0 cm

Test Date: 01-16-2020; Ambient Temp: 20.4°C; Tissue Temp: 18.8°C

Probe: EX3DV4 - SN7427; ConvF(10.18, 10.18, 10.18) @ 819 MHz; Calibrated: 2/19/2019

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Electronics: DAE4 Sn1403; Calibrated: 2/13/2019

Phantom: Twin-SAM V4.0 Main; Type: QD 000 P40 CC; Serial: 1114

Measurement SW: DASY52, Version 52.10 (3);SEMCAD X Version 14.6.13 (7474)

**Mode: LTE Band 26 (Cell.), Antenna 1, Body SAR, Left Edge, Low.ch,  
10 MHz Bandwidth, QPSK, 25 RB, 25 RB Offset**

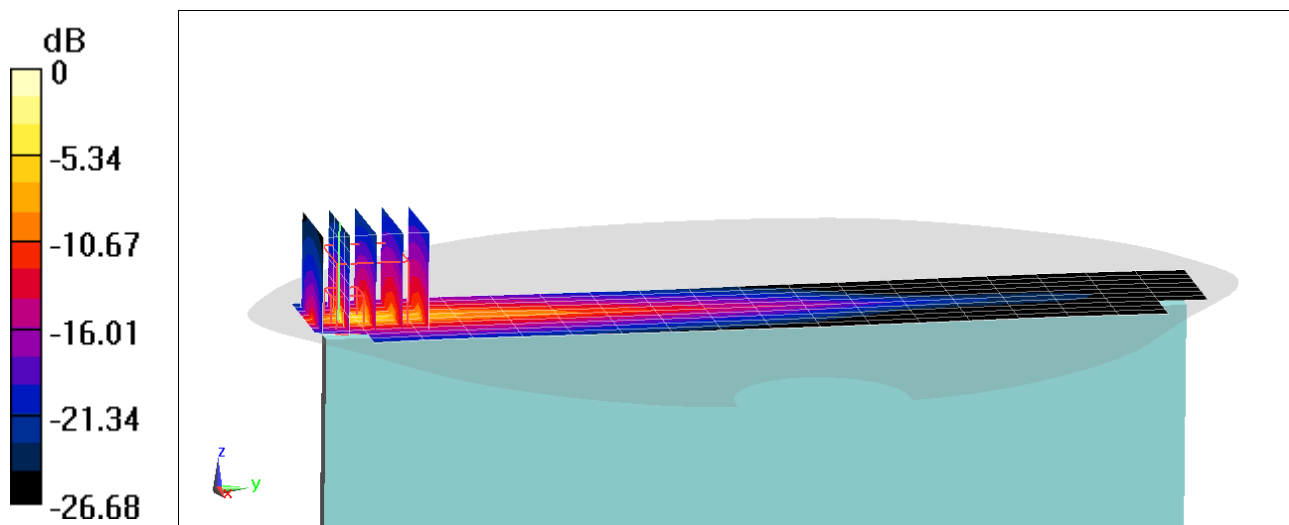
**Area Scan (10x21x1):** Measurement grid:  $dx=5\text{mm}$ ,  $dy=15\text{mm}$

**Zoom Scan (5x5x7)/Cube 0:** Measurement grid:  $dx=8\text{mm}$ ,  $dy=8\text{mm}$ ,  $dz=5\text{mm}$

Reference Value = 36.53 V/m; Power Drift = -0.12 dB

Peak SAR (extrapolated) = 5.19 W/kg

**SAR(1 g) = 1.12 W/kg; SAR(10 g) = 0.410 W/kg**



0 dB = 3.41 W/kg = 5.33 dBW/kg

# PCTEST

**DUT: BCGA2069; Type: Tablet Device; Serial: DLXZV00RPQLD**

Communication System: UID 0, LTE Band 5; Frequency: 836.5 MHz; Duty Cycle: 1:1

Medium: 835 Body Medium parameters used (interpolated):

$f = 836.5$  MHz;  $\sigma = 0.98$  S/m;  $\epsilon_r = 54.528$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section; Space: 0.0 cm

Test Date: 01-16-2020; Ambient Temp: 20.4°C; Tissue Temp: 18.8°C

Probe: EX3DV4 - SN7427; ConvF(10.18, 10.18, 10.18) @ 836.5 MHz; Calibrated: 2/19/2019

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Electronics: DAE4 Sn1403; Calibrated: 2/13/2019

Phantom: Twin-SAM V4.0 Main; Type: QD 000 P40 CC; Serial: 1114

Measurement SW: DASY52, Version 52.10 (3);SEMCAD X Version 14.6.13 (7474)

**Mode: LTE Band 5 (Cell.), Antenna 1, Body SAR, Left Edge, Mid.ch,  
10 MHz Bandwidth, QPSK, 50 RB, 0 RB Offset**

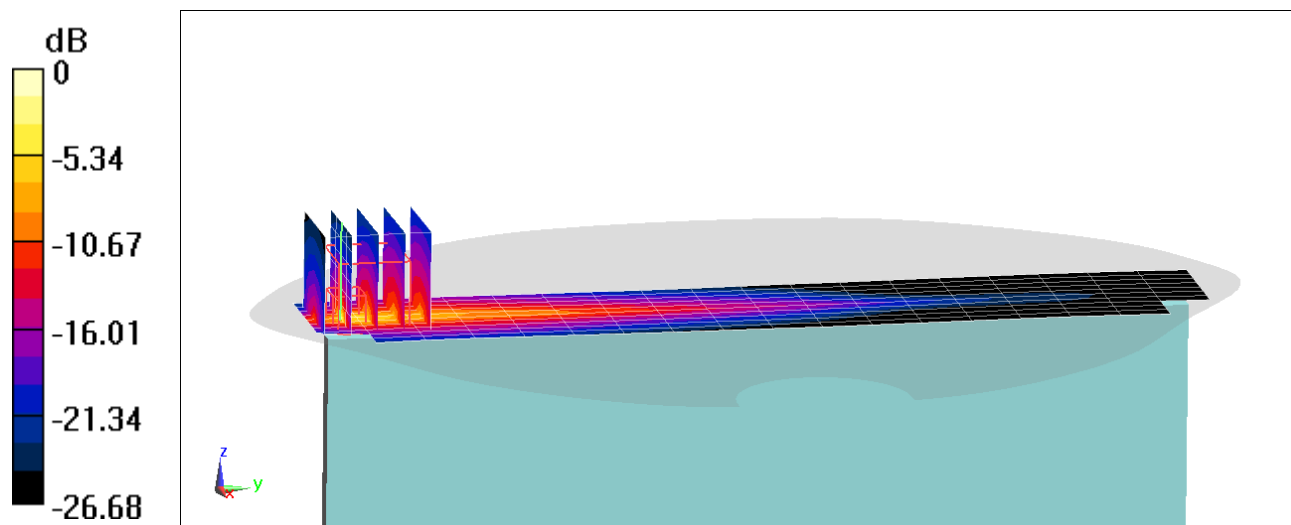
**Area Scan (10x21x1):** Measurement grid: dx=5mm, dy=15mm

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

Reference Value = 35.71 V/m; Power Drift = 0.11 dB

Peak SAR (extrapolated) = 7.39 W/kg

**SAR(1 g) = 1.14 W/kg; SAR(10 g) = 0.405 W/kg**



0 dB = 4.82 W/kg = 6.83 dBW/kg

# PCTEST

**DUT: BCGA2069; Type: Tablet Device; Serial: DLXZV011PQLD**

Communication System: UID 0, LTE Band 4 (AWS); Frequency: 1732.5 MHz; Duty Cycle: 1:1

Medium: 1750 Body Medium parameters used (interpolated):

$f = 1732.5 \text{ MHz}$ ;  $\sigma = 1.5 \text{ S/m}$ ;  $\epsilon_r = 51.345$ ;  $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section; Space: 0.0 cm

Test Date: 01-26-2020; Ambient Temp: 19.8°C; Tissue Temp: 19.9°C

Probe: EX3DV4 - SN7427; ConvF(8.14, 8.14, 8.14) @ 1732.5 MHz; Calibrated: 2/19/2019

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Electronics: DAE4 Sn1403; Calibrated: 2/13/2019

Phantom: Twin-SAM V4.0 Main; Type: QD 000 P40 CC; Serial: 1114

Measurement SW: DASY52, Version 52.10 (3);SEMCAD X Version 14.6.13 (7474)

**Mode: LTE Band 4 (AWS), Antenna 4a, Body SAR, Back side, Mid.ch,  
20 MHz Bandwidth, QPSK, 100 RB, 0 RB Offset**

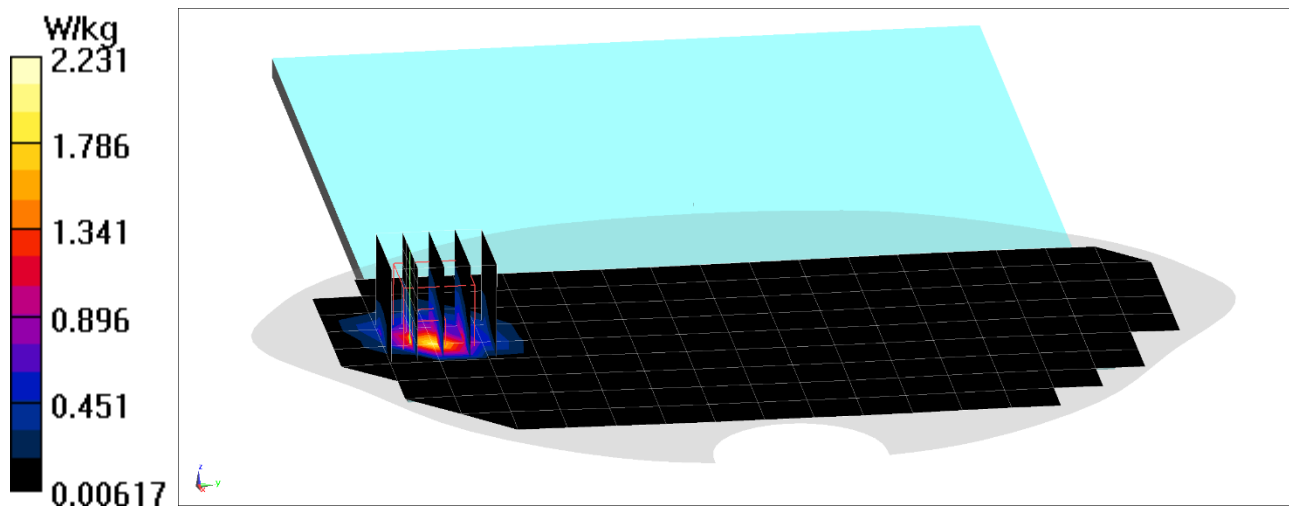
**Area Scan (10x18x1):** Measurement grid: dx=15mm, dy=15mm

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

Reference Value = 27.09 V/m; Power Drift = -0.11 dB

Peak SAR (extrapolated) = 3.19 W/kg

**SAR(1 g) = 1.06 W/kg; SAR(10 g) = 0.507 W/kg**



# PCTEST

**DUT: BCGA2069; Type: Tablet Device; Serial: DLXZV011PQLD**

Communication System: UID 0, LTE Band 66 (AWS); Frequency: 1770 MHz; Duty Cycle: 1:1

Medium: 1750 Body Medium parameters used (interpolated):

$f = 1770 \text{ MHz}$ ;  $\sigma = 1.539 \text{ S/m}$ ;  $\epsilon_r = 51.216$ ;  $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section; Space: 0.0 cm

Test Date: 01-26-2020; Ambient Temp: 19.8°C; Tissue Temp: 19.9°C

Probe: EX3DV4 - SN7427; ConvF(8.14, 8.14, 8.14) @ 1770 MHz; Calibrated: 2/19/2019

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Electronics: DAE4 Sn1403; Calibrated: 2/13/2019

Phantom: Twin-SAM V4.0 Main; Type: QD 000 P40 CC; Serial: 1114

Measurement SW: DASY52, Version 52.10 (3);SEMCAD X Version 14.6.13 (7474)

**Mode: LTE Band 66 (AWS), Antenna 4a, Body SAR, Back side, High.ch,  
20 MHz Bandwidth, QPSK, 50 RB, 0 RB Offset**

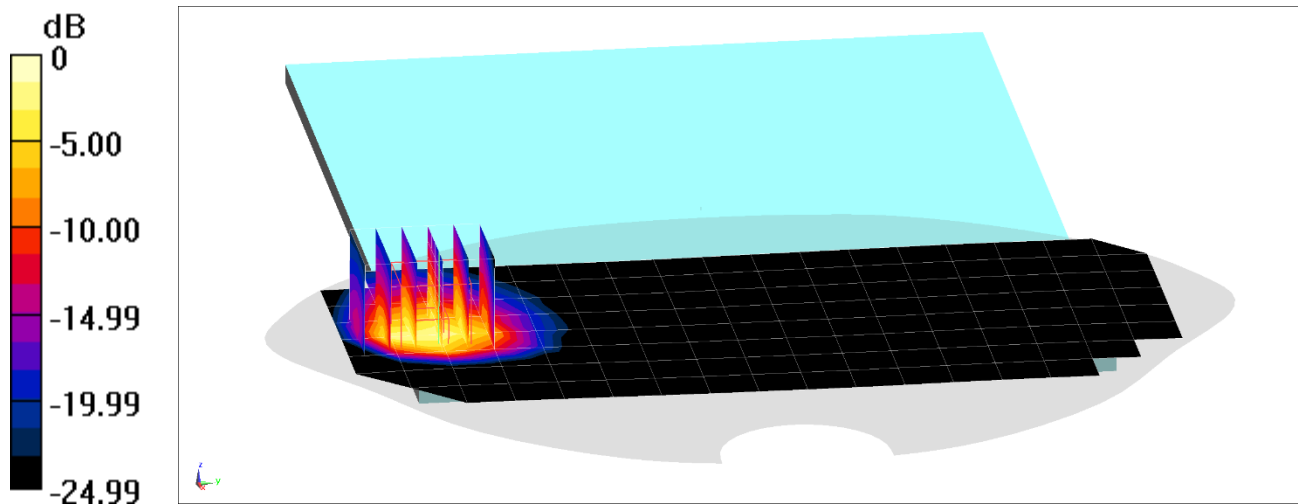
**Area Scan (9x18x1):** Measurement grid: dx=15mm, dy=15mm

**Zoom Scan (5x6x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 25.31 V/m; Power Drift = -0.14 dB

Peak SAR (extrapolated) = 3.06 W/kg

**SAR(1 g) = 1.11 W/kg; SAR(10 g) = 0.518 W/kg**



0 dB = 2.04 W/kg = 3.10 dBW/kg

# PCTEST

**DUT: BCGA2069; Type: Tablet Device; Serial: DLXZV0GPQLD**

Communication System: UID 0, LTE Band 2 (PCS), Frequency: 1900 MHz; Duty Cycle: 1:1

Medium: 1900 Body Medium parameters used (interpolated):

$f = 1900 \text{ MHz}$ ;  $\sigma = 1.578 \text{ S/m}$ ;  $\epsilon_r = 52.272$ ;  $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section; Space: 0.0 cm

Test Date: 01-20-2020; Ambient Temp: 22.3°C; Tissue Temp: 20.0°C

Probe: EX3DV4 - SN7420; ConvF(7.64, 7.64, 7.64) @ 1900 MHz; Calibrated: 11/21/2019

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Electronics: DAE4 Sn1213; Calibrated: 11/13/2019

Phantom: Twin-SAM V4.0; Type: QD 000 P40 CA; Serial: 1275

Measurement SW: DASY52, Version 52.10 (3);SEMCAD X Version 14.6.13 (7474)

**Mode: LTE Band 2 (PCS), Antenna 4a, Body SAR, Back side, High.ch,  
20 MHz Bandwidth, QPSK, 100 RB, 0 RB Offset**

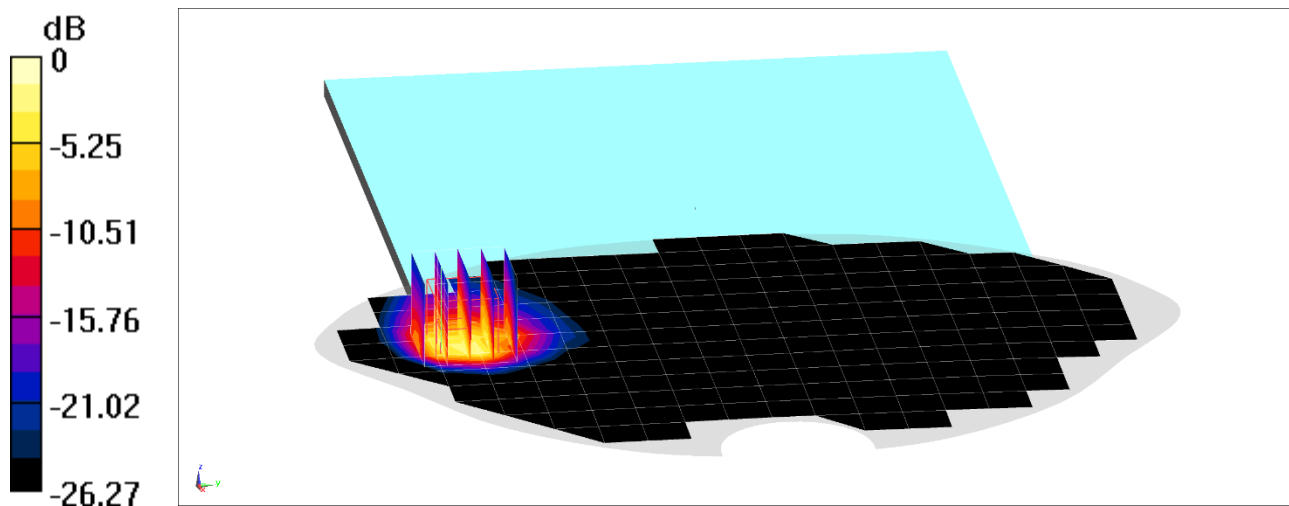
**Area Scan (15x19x1):** Measurement grid:  $dx=15\text{mm}$ ,  $dy=15\text{mm}$

**Zoom Scan (5x5x7)/Cube 0:** Measurement grid:  $dx=8\text{mm}$ ,  $dy=8\text{mm}$ ,  $dz=5\text{mm}$

Reference Value = 26.12 V/m; Power Drift = 0.04 dB

Peak SAR (extrapolated) = 4.04 W/kg

**SAR(1 g) = 1.16 W/kg; SAR(10 g) = 0.538 W/kg**



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

# PCTEST

**DUT: BCGA2069; Type: Tablet Device; Serial: DLXZV0GPQLD**

Communication System: UID 0, LTE Band 25 (PCS); Frequency: 1905 MHz; Duty Cycle: 1:1

Medium: 1900 Body Medium parameters used (interpolated):

$f = 1905 \text{ MHz}$ ;  $\sigma = 1.584 \text{ S/m}$ ;  $\epsilon_r = 52.223$ ;  $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section; Space: 0.0 cm

Test Date: 01-18-2020; Ambient Temp: 19.9°C; Tissue Temp: 20.5°C

Probe: EX3DV4 - SN7420; ConvF(7.64, 7.64, 7.64) @ 1905 MHz; Calibrated: 11/21/2019

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Electronics: DAE4 Sn1213; Calibrated: 11/13/2019

Phantom: Twin-SAM V4.0; Type: QD 000 P40 CA; Serial: 1275

Measurement SW: DASY52, Version 52.10 (3);SEMCAD X Version 14.6.13 (7474)

**Mode: LTE Band 25 (PCS), Antenna 4a, Body SAR, Back side, High.ch,  
20 MHz Bandwidth, QPSK, 50 RB, 0 RB Offset**

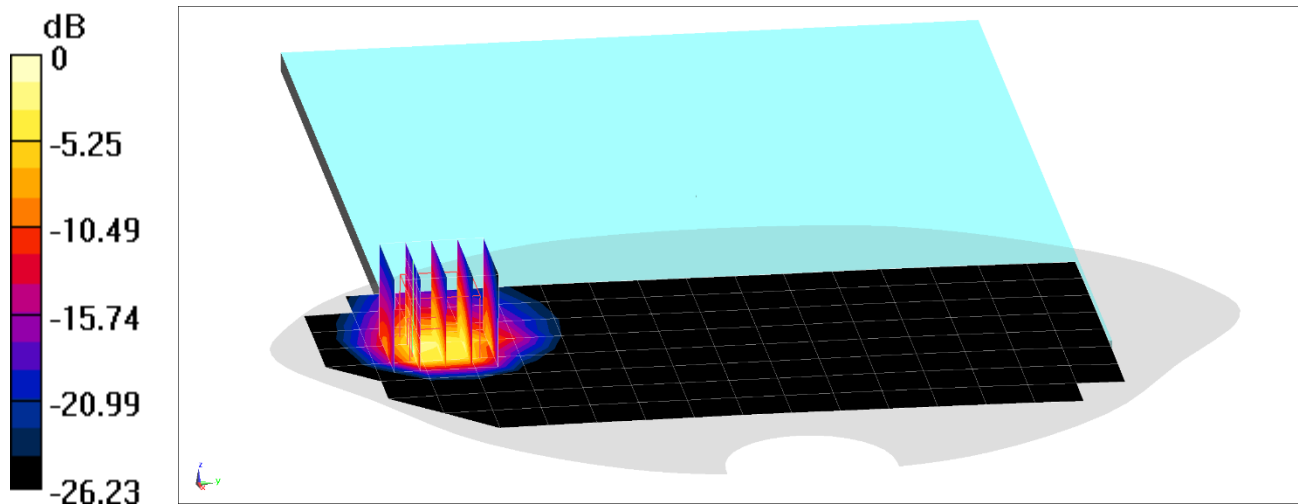
**Area Scan (9x17x1):** Measurement grid:  $dx=15\text{mm}$ ,  $dy=15\text{mm}$

**Zoom Scan (5x5x7)/Cube 0:** Measurement grid:  $dx=8\text{mm}$ ,  $dy=8\text{mm}$ ,  $dz=5\text{mm}$

Reference Value = 26.21 V/m; Power Drift = -0.04 dB

Peak SAR (extrapolated) = 4.20 W/kg

**SAR(1 g) = 1.18 W/kg; SAR(10 g) = 0.553 W/kg**



0 dB = 2.61 W/kg = 4.17 dBW/kg

# PCTEST

**DUT: BCGA2069; Type: Tablet Device; Serial: DLXZV0GPQLD**

Communication System: UID 0, LTE Band 30; Frequency: 2310 MHz; Duty Cycle: 1:1

Medium: 2300 Body Medium parameters used:

$f = 2310 \text{ MHz}$ ;  $\sigma = 1.843 \text{ S/m}$ ;  $\epsilon_r = 52.593$ ;  $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section; Space: 0.0 cm

Test Date: 01-26-2020; Ambient Temp: 23.1°C; Tissue Temp: 21.1°C

Probe: EX3DV4 - SN7532; ConvF(7.93, 7.93, 7.93) @ 2310 MHz; Calibrated: 4/12/2019

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Electronics: DAE4 Sn501; Calibrated: 4/17/2019

Phantom: Twin-SAM V4.0; Type: QD 000 P40 CC; Serial: 1179

Measurement SW: DASY52, Version 52.10 (3);SEMCAD X Version 14.6.13 (7474)

**Mode: LTE Band 30, Antenna 4a, Body SAR, Back side, Mid.ch,  
10 MHz Bandwidth, QPSK, 25 RB, 0 RB Offset**

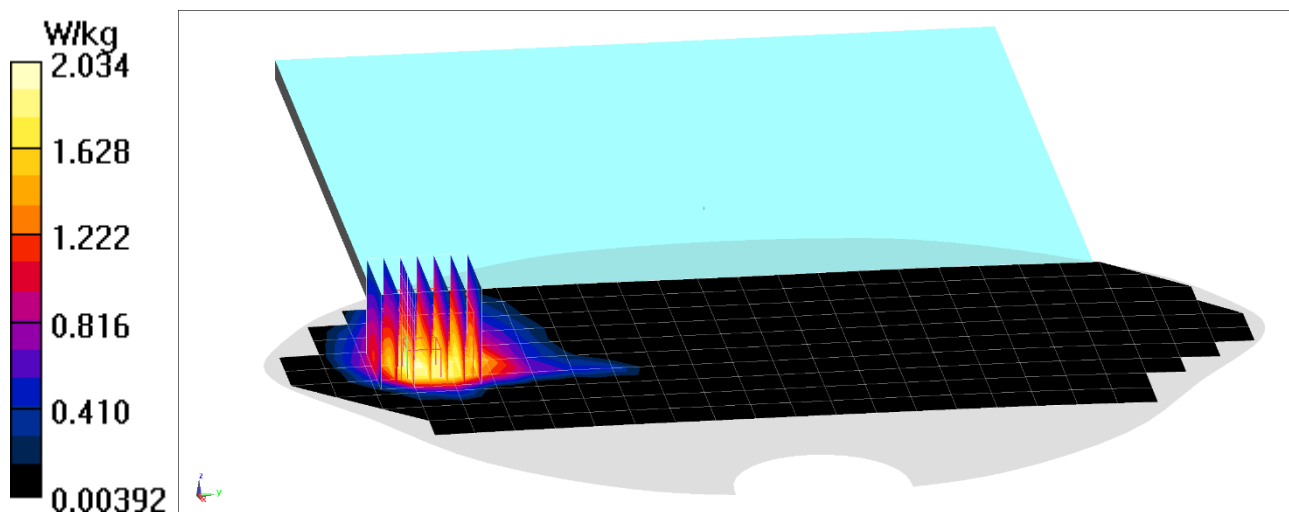
**Area Scan (11x11x1):** Measurement grid: dx=12mm, dy=12mm

**Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 24.93 V/m; Power Drift = -0.01 dB

Peak SAR (extrapolated) = 3.28 W/kg

**SAR(1 g) = 1.08 W/kg; SAR(10 g) = 0.398 W/kg**



# PCTEST

**DUT: BCGA2069; Type: Tablet Device; Serial: DLXZV00BPQLD**

Communication System: UID 0, LTE Band 7; Frequency: 2535 MHz; Duty Cycle: 1:1

Medium: 2450 Body Medium parameters used (interpolated):

$f = 2535 \text{ MHz}$ ;  $\sigma = 2.149 \text{ S/m}$ ;  $\epsilon_r = 51.543$ ;  $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section; Space: 0.0 cm

Test Date: 01-24-2020; Ambient Temp: 22.5°C; Tissue Temp: 20.9°C

Probe: EX3DV4 - SN7532; ConvF(7.47, 7.47, 7.47) @ 2535 MHz; Calibrated: 4/12/2019

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Electronics: DAE4 Sn501; Calibrated: 4/17/2019

Phantom: Twin-SAM V4.0; Type: QD 000 P40 CC; Serial: 1179

Measurement SW: DASY52, Version 52.10 (3);SEMCAD X Version 14.6.13 (7474)

**Mode: LTE Band 7, Antenna 4b, Body SAR, Back side, Mid.ch,  
20 MHz Bandwidth, QPSK, 1 RB, 50 RB Offset**

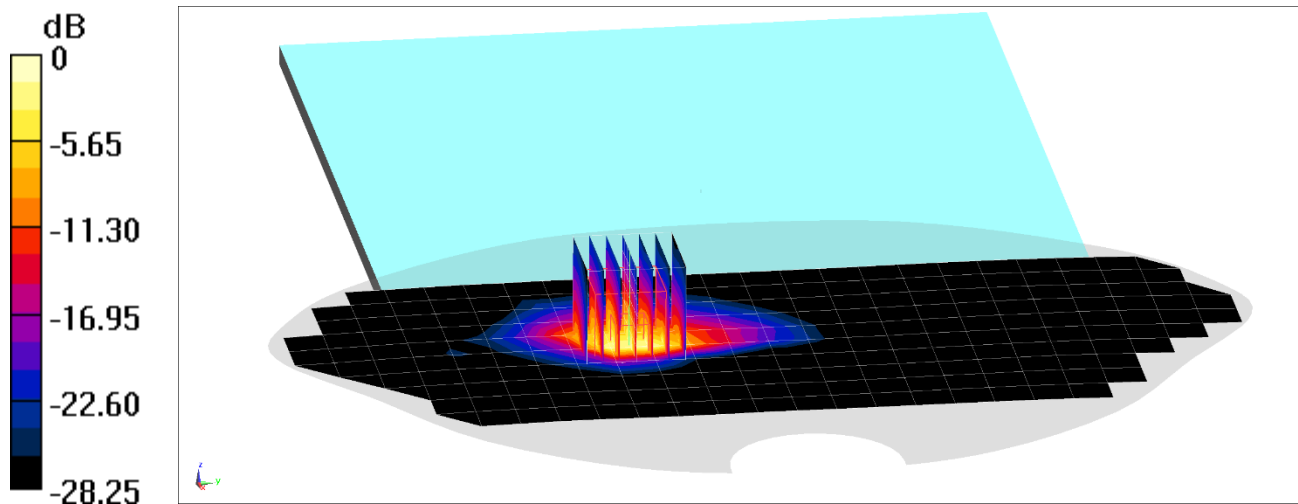
**Area Scan (11x25x1):** Measurement grid:  $dx=12\text{mm}$ ,  $dy=12\text{mm}$

**Zoom Scan (7x7x7)/Cube 0:** Measurement grid:  $dx=5\text{mm}$ ,  $dy=5\text{mm}$ ,  $dz=5\text{mm}$

Reference Value = 24.76 V/m; Power Drift = -0.02 dB

Peak SAR (extrapolated) = 4.03 W/kg

**SAR(1 g) = 1.12 W/kg; SAR(10 g) = 0.392 W/kg**



0 dB = 2.65 W/kg = 4.23 dBW/kg

# PCTEST

**DUT: BCGA2069; Type: Tablet Device; Serial: DLXZV00BPQLD**

Communication System: UID 0, LTE Band 41 (Class 3); Frequency: 2506 MHz; Duty Cycle: 1:1.58

Medium: 2450 Body Medium parameters used (interpolated):

$f = 2506 \text{ MHz}$ ;  $\sigma = 2.085 \text{ S/m}$ ;  $\epsilon_r = 52.875$ ;  $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section; Space: 0.0 cm

Test Date: 01-27-2020; Ambient Temp: 21.9°C; Tissue Temp: 20.4°C

Probe: EX3DV4 - SN3949; ConvF(7.75, 7.75, 7.75) @ 2506 MHz; Calibrated: 8/29/2019

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Electronics: DAE4 Sn1408; Calibrated: 8/12/2019

Phantom: Twin-SAM V4.0; Type: QD 000 P40 CC; Serial: 1596

Measurement SW: DASY52, Version 52.10 (3);SEMCAD X Version 14.6.13 (7474)

**Mode: LTE Band 41, Antenna 4b, Body SAR, Back side, Low.ch,  
20 MHz Bandwidth, QPSK, 1 RB, 0 RB Offset**

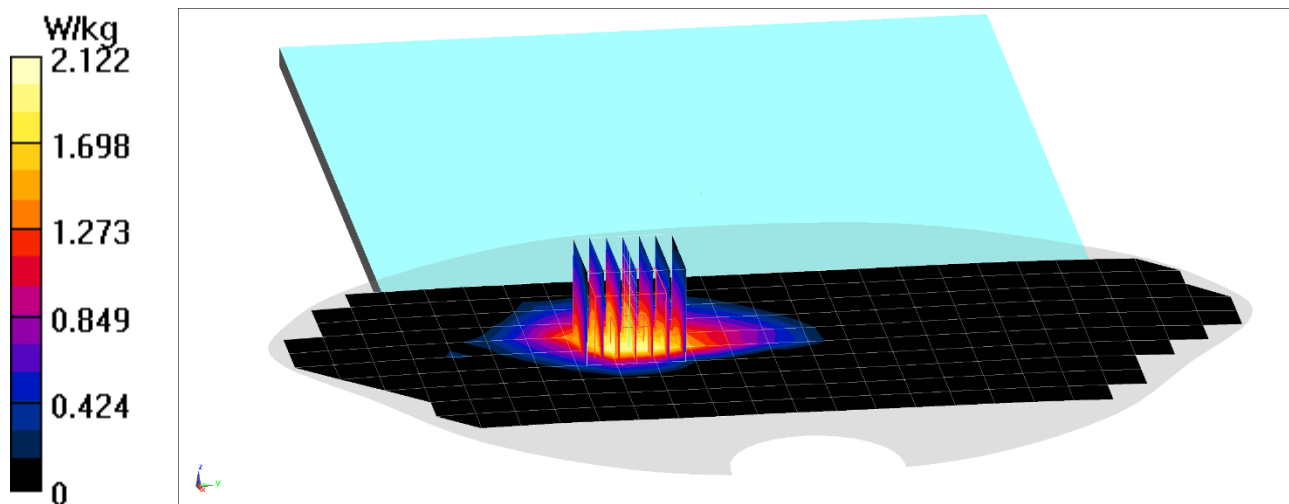
**Area Scan (11x25x1):** Measurement grid: dx=12mm, dy=12mm

**Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 24.32 V/m; Power Drift = 0.00 dB

Peak SAR (extrapolated) = 3.22 W/kg

**SAR(1 g) = 1.12 W/kg; SAR(10 g) = 0.407 W/kg**



# PCTEST

**DUT: BCGA2069; Type: Tablet Device; Serial: DLXZV00QPQLD**

Communication System: UID 0, \_LTE Band 48; Frequency: 3603.3 MHz; Duty Cycle: 1:1.58

Medium: 3500 - 3700 Body Medium parameters used (interpolated):

$f = 3603.3$  MHz;  $\sigma = 3.497$  S/m;  $\epsilon_r = 49.265$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section; Space: 0.0 cm

Test Date: 01-20-2020; Ambient Temp: 21.4°C; Tissue Temp: 20.8°C

Probe: EX3DV4 - SN3949; ConvF(6.78, 6.78, 6.78) @ 3603.3 MHz; Calibrated: 8/29/2019

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Electronics: DAE4 Sn1408; Calibrated: 8/12/2019

Phantom: Twin-SAM V4.0; Type: QD 000 P40 CC; Serial: 1596

Measurement SW: DASY52, Version 52.10 (3);SEMCAD X Version 14.6.13 (7474)

**Mode: LTE Band 48, Antenna 3, Body SAR, Right Edge, Low-Mid.ch,  
20 MHz Bandwidth, QPSK, 1 RB, 99 RB Offset**

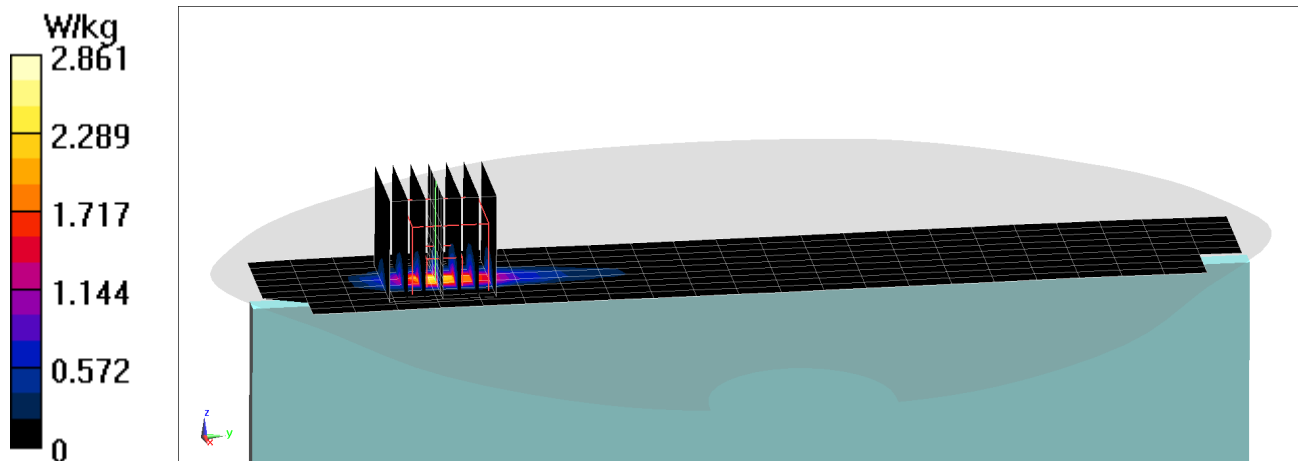
**Area Scan (10x26x1):** Measurement grid: dx=5mm, dy=12mm

**Zoom Scan (7x7x8)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=1.4mm; Graded Ratio: 1.4

Reference Value = 20.19 V/m; Power Drift = -0.03 dB

Peak SAR (extrapolated) = 4.46 W/kg

**SAR(1 g) = 1.12 W/kg; SAR(10 g) = 0.309 W/kg**



# PCTEST

**DUT: BCGA2069; Type: Tablet Device; Serial: DLXZN00LP57T**

Communication System: UID 0, IEEE 802.11b; Frequency: 2412 MHz; Duty Cycle: 1:1

Medium: 2450 Body Medium parameters used (interpolated):

$f = 2412 \text{ MHz}$ ;  $\sigma = 1.979 \text{ S/m}$ ;  $\epsilon_r = 50.8$ ;  $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section; Space: 0.0 cm

Test Date: 12-18-2019; Ambient Temp: 20.6°C; Tissue Temp: 21.6°C

Probe: EX3DV4 - SN7532; ConvF(7.66, 7.66, 7.66) @ 2412 MHz; Calibrated: 4/12/2019

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Electronics: DAE4 Sn501; Calibrated: 4/17/2019

Phantom: Twin-SAM V4.0; Type: QD 000 P40 CC; Serial: 1179

Measurement SW: DASY52, Version 52.10 (3);SEMCAD X Version 14.6.13 (7474)

**Mode: IEEE 802.11b, Antenna 2A, Variant 1, 22 MHz Bandwidth,  
Body SAR, Ch 1, 1 Mbps, Back Side**

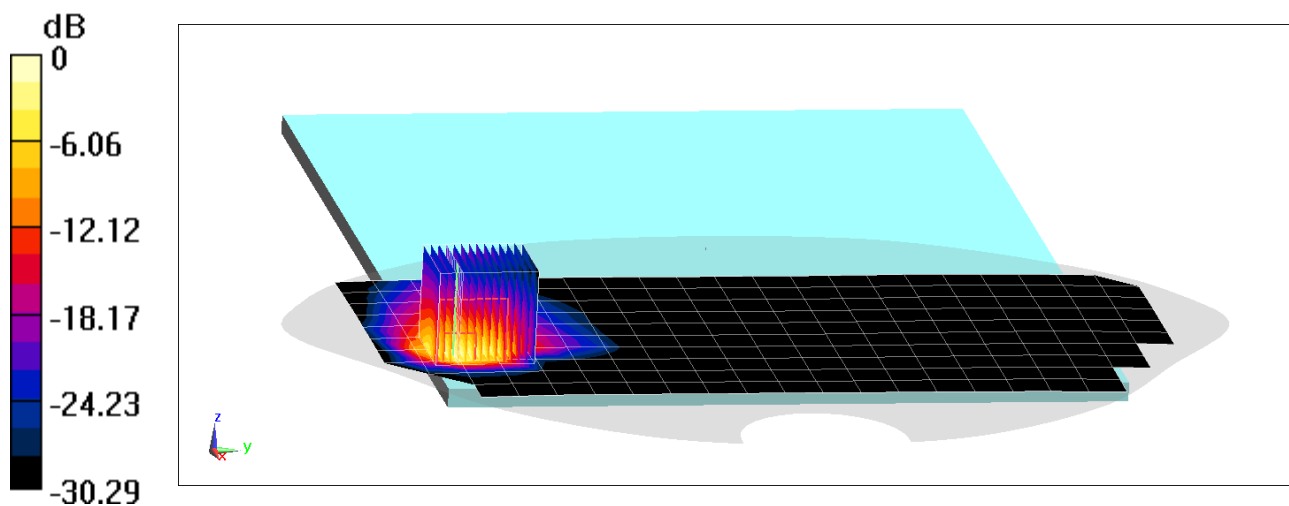
**Area Scan (11x22x1):** Measurement grid:  $dx=12\text{mm}$ ,  $dy=12\text{mm}$

**Zoom Scan (13x14x8)/Cube 0:** Measurement grid:  $dx=2.4\text{mm}$ ,  $dy=2.4\text{mm}$ ,  $dz=1.4\text{mm}$ ; Graded Ratio: 1.4

Reference Value = 20.34 V/m; Power Drift = -0.02 dB

Peak SAR (extrapolated) = 4.74 W/kg

**SAR(1 g) = 0.983 W/kg; SAR(10 g) = 0.429 W/kg**



0 dB = 2.58 W/kg = 4.12 dBW/kg

# PCTEST

**DUT: BCGA2069; Type: Tablet Device; Serial: DLXZN00LP57T**

Communication System: UID 0, \_IEEE 802.11ac; Frequency: 5775 MHz; Duty Cycle: 1:1

Medium: 5GHz Body Medium parameters used (interpolated):

$f = 5775 \text{ MHz}$ ;  $\sigma = 5.935 \text{ S/m}$ ;  $\epsilon_r = 46.573$ ;  $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section; Space: 0.0 cm

Test Date: 12-23-2019; Ambient Temp: 21.1°C; Tissue Temp: 19.5°C

Probe: EX3DV4 - SN7491; ConvF(4.32, 4.32, 4.32) @ 5775 MHz; Calibrated: 7/16/2019

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Electronics: DAE4 Sn1402; Calibrated: 7/10/2019

Phantom: Twin-SAM V8.0; Type: QD 000 P41 Ax; Serial: 1936

Measurement SW: DASY52, Version 52.10 (3);SEMCAD X Version 14.6.13 (7474)

**Mode: IEEE 802.11ac, 5 GHz ANTupper, Variant 1, U-NII-3, 80 MHz Bandwidth,  
Body SAR, Ch 155, 29.3 Mbps, Right Edge**

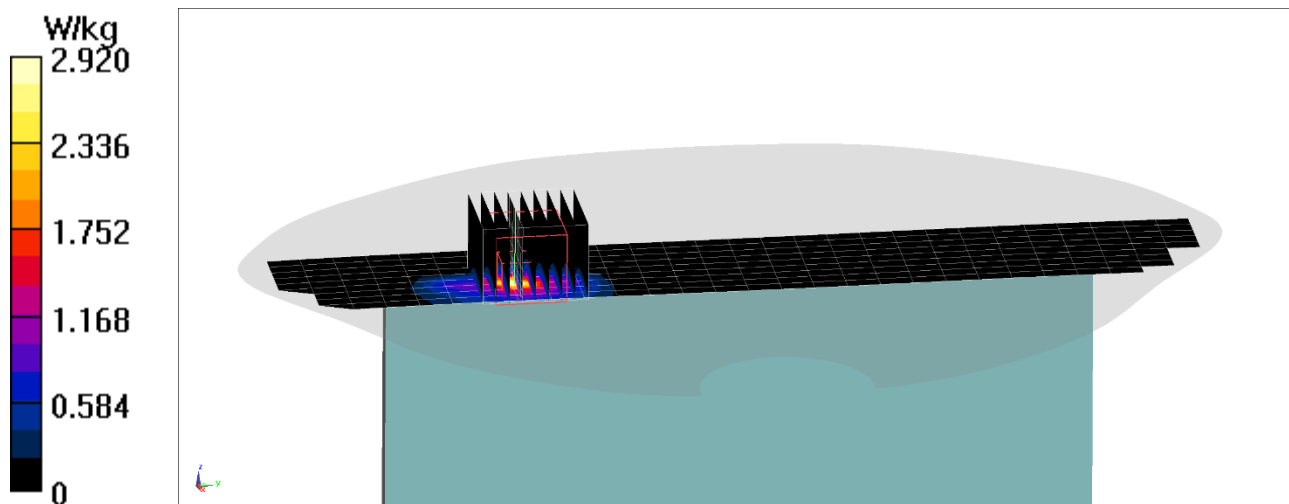
**Area Scan (10x31x1):** Measurement grid: dx=5mm, dy=10mm

**Zoom Scan (9x9x7)/Cube 0:** Measurement grid: dx=4mm, dy=4mm, dz=1.4mm; Graded Ratio: 1.4

Reference Value = 14.77 V/m; Power Drift = -0.12 dB

Peak SAR (extrapolated) = 5.13 W/kg

**SAR(1 g) = 1 W/kg; SAR(10 g) = 0.294 W/kg**



# PCTEST

**DUT: BCGA2069; Type: Tablet Device; Serial: DLXZV011PQLD**

Communication System: UID 0, Bluetooth; Frequency: 2480 MHz; Duty Cycle: 1:1.302

Medium: 2450 Body Medium parameters used (interpolated):

$f = 2480 \text{ MHz}$ ;  $\sigma = 1.992 \text{ S/m}$ ;  $\epsilon_r = 50.709$ ;  $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section; Space: 0.0 cm

Test Date: 01-14-2020; Ambient Temp: 22.1°C; Tissue Temp: 21.0°C

Probe: EX3DV4 - SN7532; ConvF(7.66, 7.66, 7.66) @ 2480 MHz; Calibrated: 4/12/2019

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Electronics: DAE4 Sn501; Calibrated: 4/17/2019

Phantom: Twin-SAM V4.0; Type: QD 000 P40 CC; Serial: 1179

Measurement SW: DASY52, Version 52.10 (3);SEMCAD X Version 14.6.13 (7474)

**Mode: Bluetooth, Antenna 2a, Body SAR, Ch 78, 1 Mbps, Back Side, Variant 2**

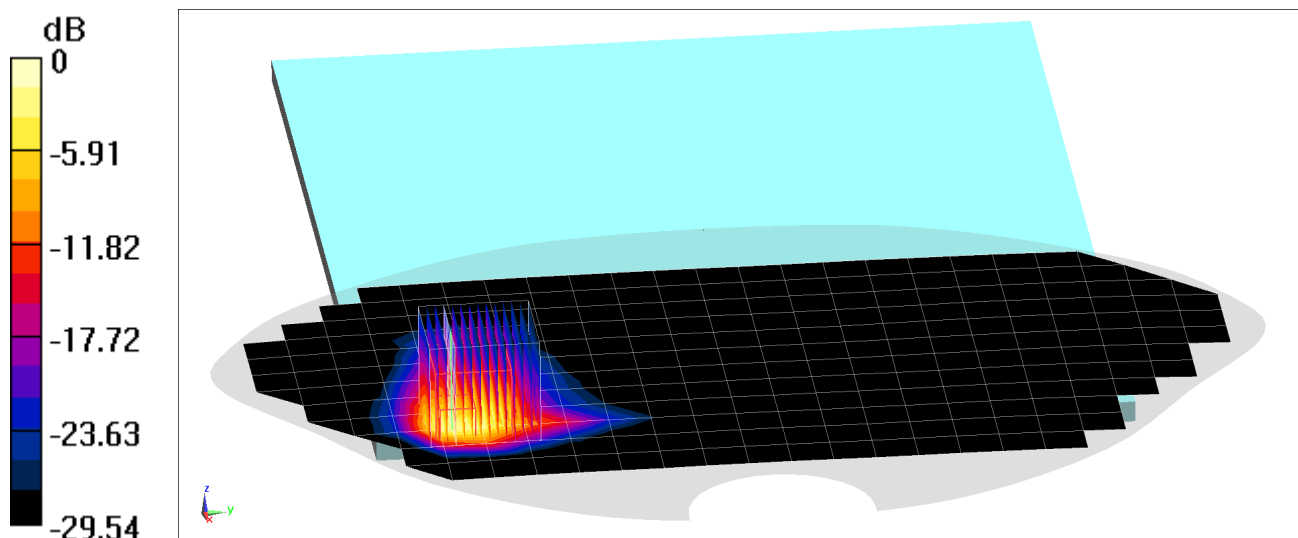
**Area Scan (13x26x1):** Measurement grid: dx=12mm, dy=12mm

**Zoom Scan (14x14x8)/Cube 0:** Measurement grid: dx=2.4mm, dy=2.4mm, dz=1.4mm; Graded Ratio: 1.4

Reference Value = 19.37 V/m; Power Drift = 0.02 dB

Peak SAR (extrapolated) = 4.45 W/kg

SAR(1 g) = 0.906 W/kg; SAR(10 g) = 0.382 W/kg



0 dB = 2.42 W/kg = 3.84 dBW/kg

## APPENDIX B: SYSTEM VERIFICATION

# PCTEST

**DUT: Dipole 750 MHz; Type: D750V3; Serial: 1034**

Communication System: UID 0, CW; Frequency: 750 MHz; Duty Cycle: 1:1

Medium: 750 Body Medium parameters used (interpolated):

$f = 750 \text{ MHz}$ ;  $\sigma = 0.956 \text{ S/m}$ ;  $\epsilon_r = 53.72$ ;  $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section; Space: 1.5 cm

Test Date: 01-16-2020; Ambient Temp: 20.7°C; Tissue Temp: 20.7°C

Probe: EX3DV4 - SN7421; ConvF(9.66, 9.66, 9.66) @ 750 MHz; Calibrated: 3/18/2019

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Electronics: DAE4 Sn604; Calibrated: 3/13/2019

Phantom: Twin-SAM V4.0; Type: QD 000 P40 CD; Serial: 1736

Measurement SW: DASY52, Version 52.10 (3);SEMCAD X Version 14.6.13 (7474)

## **750 MHz System Verification at 23.0 dBm (200 mW)**

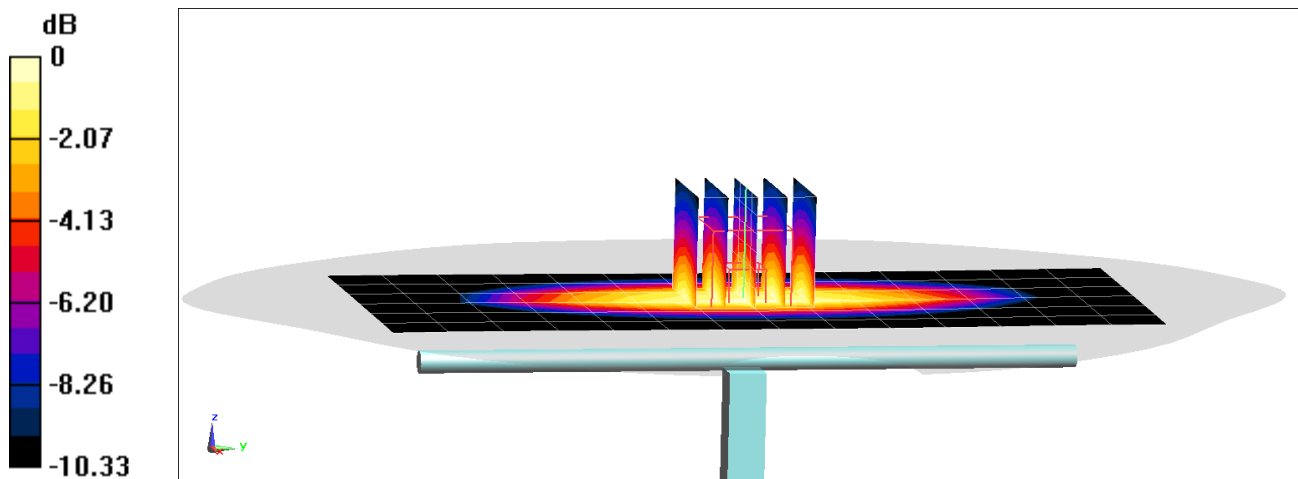
**Area Scan (7x15x1):** Measurement grid: dx=15mm, dy=15mm

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

Peak SAR (extrapolated) = 2.71 W/kg

**SAR(1 g) = 1.8 W/kg; SAR(10 g) = 1.19 W/kg**

Deviation(1 g) = 5.02%



0 dB = 2.40 W/kg = 3.80 dBW/kg

# PCTEST

**DUT: Dipole 835 MHz; Type: D835V2; Serial: 4d040**

Communication System: UID 0, CW; Frequency: 835 MHz; Duty Cycle: 1:1

Medium: 835 Body Medium parameters used:

$f = 835 \text{ MHz}$ ;  $\sigma = 0.978 \text{ S/m}$ ;  $\epsilon_r = 54.548$ ;  $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section; Space: 1.5 cm

Test Date: 01-16-2020; Ambient Temp: 20.4°C; Tissue Temp: 18.8°C

Probe: EX3DV4 - SN7427; ConvF(10.18, 10.18, 10.18) @ 835 MHz; Calibrated: 2/19/2019

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Electronics: DAE4 Sn1403; Calibrated: 2/13/2019

Phantom: Twin-SAM V4.0 Main; Type: QD 000 P40 CC; Serial: 1114

Measurement SW: DASY52, Version 52.10 (3);SEMCAD X Version 14.6.13 (7474)

## **835 MHz System Verification at 23.0 dBm (200 mW)**

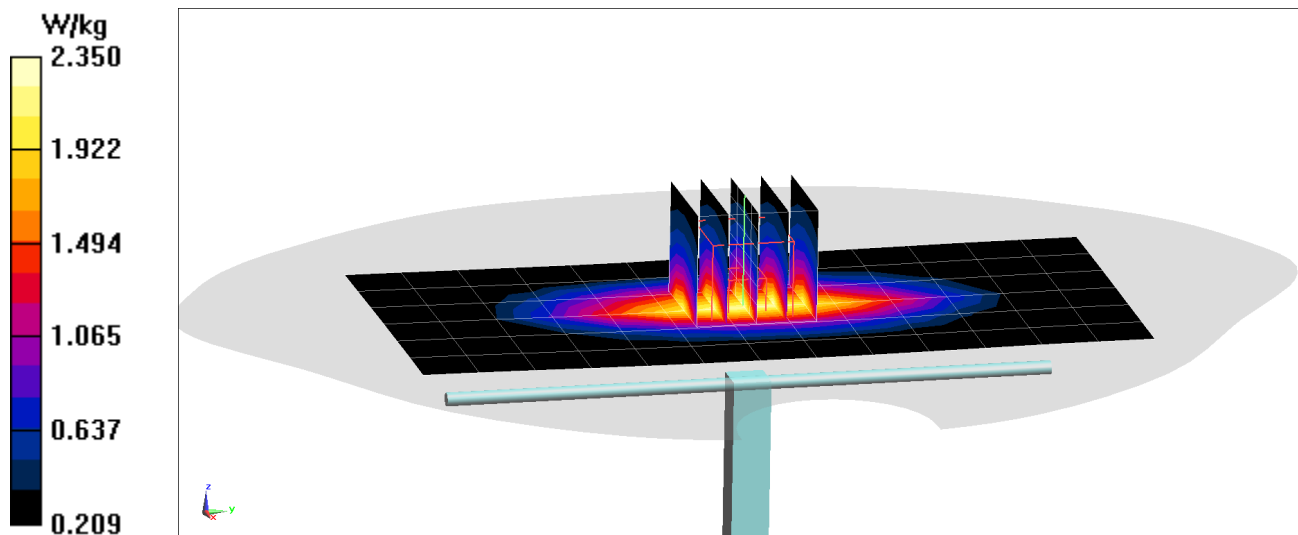
**Area Scan (7x14x1):** Measurement grid:  $dx=15\text{mm}$ ,  $dy=15\text{mm}$

**Zoom Scan (5x5x7)/Cube 0:** Measurement grid:  $dx=8\text{mm}$ ,  $dy=8\text{mm}$ ,  $dz=5\text{mm}$

Peak SAR (extrapolated) = 2.65 W/kg

**SAR(1 g) = 1.77 W/kg; SAR(10 g) = 1.17 W/kg**

Deviation(1 g) = -7.14%



# PCTEST

**DUT: Dipole 1750 MHz; Type: D1750V2; Serial: 1083**

Communication System: UID 0, CW; Frequency: 1750 MHz; Duty Cycle: 1:1

Medium: 1750 Body Medium parameters used:

$f = 1750$  MHz;  $\sigma = 1.514$  S/m;  $\epsilon_r = 51.328$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section; Space: 1.0 cm

Test Date: 01-26-2020; Ambient Temp: 19.8°C; Tissue Temp: 19.9°C

Probe: EX3DV4 - SN7427; ConvF(8.14, 8.14, 8.14) @ 1750 MHz; Calibrated: 2/19/2019

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Electronics: DAE4 Sn1403; Calibrated: 2/13/2019

Phantom: Twin-SAM V4.0 Main; Type: QD 000 P40 CC; Serial: 1114

Measurement SW: DASY52, Version 52.10 (3);SEMCAD X Version 14.6.13 (7474)

## 1750 MHz System Verification at 20.0 dBm (100 mW)

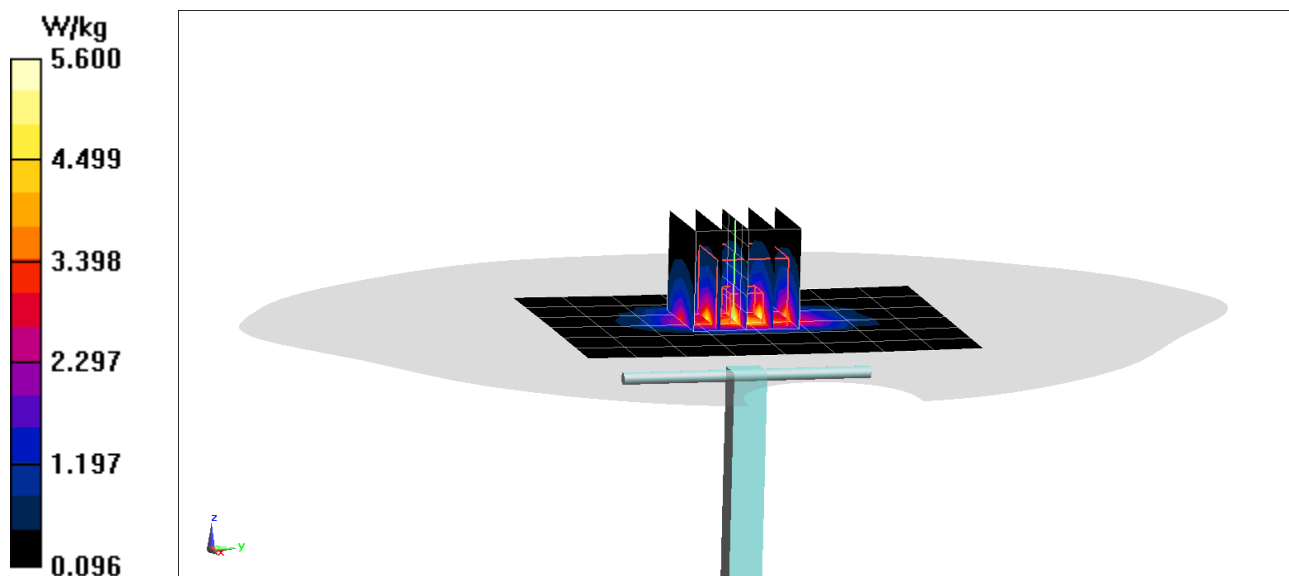
**Area Scan (7x9x1):** Measurement grid: dx=15mm, dy=15mm

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

Peak SAR (extrapolated) = 6.62 W/kg

**SAR(1 g) = 3.69 W/kg; SAR(10 g) = 1.95 W/kg**

Deviation(1 g) = -0.54%



# PCTEST

**DUT: Dipole 1750 MHz; Type: D1750V2; Serial: 1083**

Communication System: UID 0, CW; Frequency: 1750 MHz; Duty Cycle: 1:1

Medium: 1750 Body Medium parameters used:

$f = 1750 \text{ MHz}$ ;  $\sigma = 1.509 \text{ S/m}$ ;  $\epsilon_r = 51.325$ ;  $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section; Space: 1.0 cm

Test Date: 01-28-2020; Ambient Temp: 21.9°C; Tissue Temp: 19.0°C

Probe: EX3DV4 - SN7427; ConvF(8.14, 8.14, 8.14) @ 1750 MHz; Calibrated: 2/19/2019

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Electronics: DAE4 Sn1403; Calibrated: 2/13/2019

Phantom: Twin-SAM V4.0 Main; Type: QD 000 P40 CC; Serial: 1114

Measurement SW: DASY52, Version 52.10 (3);SEMCAD X Version 14.6.13 (7474)

## 1750 MHz System Verification at 20.0 dBm (100 mW)

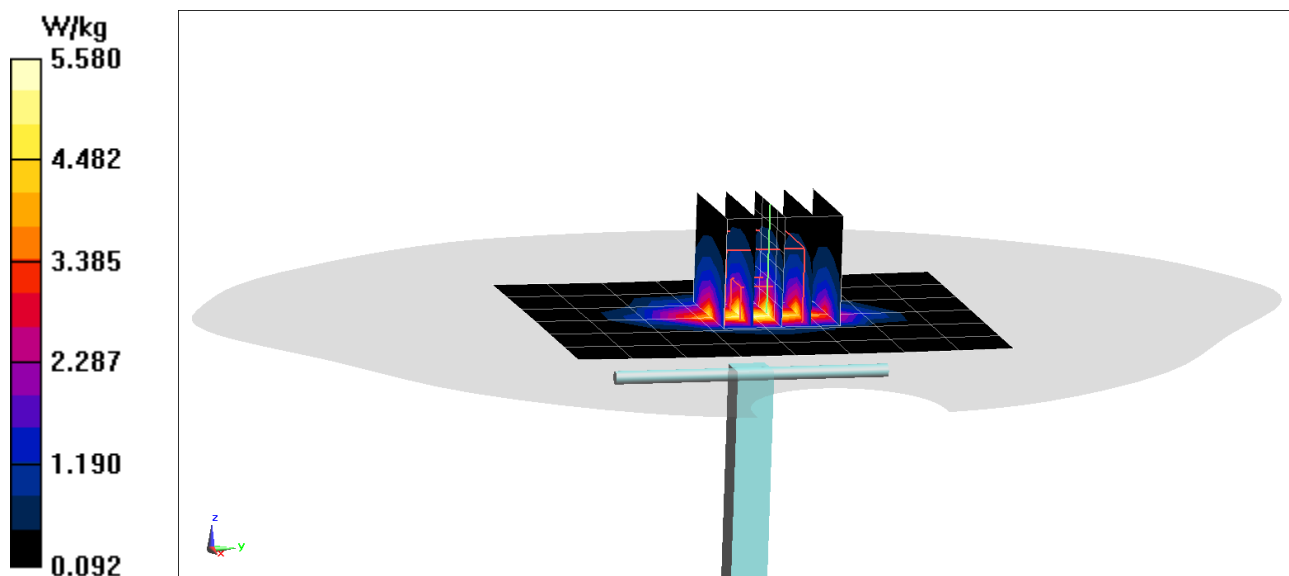
**Area Scan (7x9x1):** Measurement grid: dx=15mm, dy=15mm

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

Peak SAR (extrapolated) = 6.66 W/kg

**SAR(1 g) = 3.7 W/kg; SAR(10 g) = 1.96 W/kg**

Deviation(1 g) = -0.27%



# PCTEST

**DUT: Dipole 1900 MHz; Type: D1900V2; Serial: 5d026**

Communication System: UID 0, CW; Frequency: 1900 MHz; Duty Cycle: 1:1

Medium: 1900 Body Medium parameters used (interpolated):

$f = 1900 \text{ MHz}$ ;  $\sigma = 1.58 \text{ S/m}$ ;  $\epsilon_r = 52.228$ ;  $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section; Space: 1.0 cm

Test Date: 01-18-2020; Ambient Temp: 19.9°C; Tissue Temp: 20.5°C

Probe: EX3DV4 - SN7420; ConvF(7.64, 7.64, 7.64) @ 1900 MHz; Calibrated: 11/21/2019

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Electronics: DAE4 Sn1213; Calibrated: 11/13/2019

Phantom: Twin-SAM V4.0; Type: QD 000 P40 CA; Serial: 1275

Measurement SW: DASY52, Version 52.10 (3);SEMCAD X Version 14.6.13 (7474)

## 1900 MHz System Verification at 20.0 dBm (100 mW)

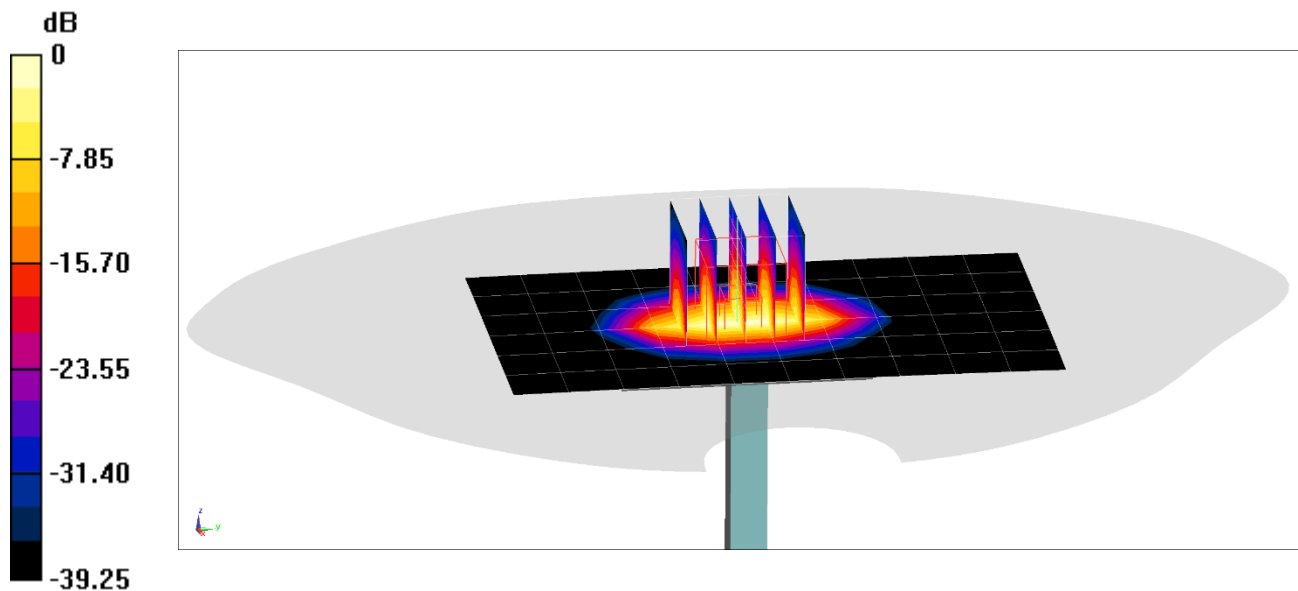
**Area Scan (7x11x1):** Measurement grid:  $dx=15\text{mm}$ ,  $dy=15\text{mm}$

**Zoom Scan (5x5x7)/Cube 0:** Measurement grid:  $dx=8\text{mm}$ ,  $dy=8\text{mm}$ ,  $dz=5\text{mm}$

Peak SAR (extrapolated) = 7.66 W/kg

**SAR(1 g) = 4.19 W/kg; SAR(10 g) = 2.16 W/kg**

Deviation(1 g) = 5.01%



0 dB = 6.11 W/kg = 7.86 dBW/kg

# PCTEST

**DUT: Dipole 1900 MHz; Type: D1900V2; Serial: 5d026**

Communication System: UID 0, CW; Frequency: 1900 MHz; Duty Cycle: 1:1

Medium: 1900 Body Medium parameters used (interpolated):

$f = 1900 \text{ MHz}$ ;  $\sigma = 1.578 \text{ S/m}$ ;  $\epsilon_r = 52.272$ ;  $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section; Space: 1.0 cm

Test Date: 01-20-2020; Ambient Temp: 22.3°C; Tissue Temp: 20.0°C

Probe: EX3DV4 - SN7420; ConvF(7.64, 7.64, 7.64) @ 1900 MHz; Calibrated: 11/21/2019

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Electronics: DAE4 Sn1213; Calibrated: 11/13/2019

Phantom: Twin-SAM V4.0; Type: QD 000 P40 CA; Serial: 1275

Measurement SW: DASY52, Version 52.10 (3);SEMCAD X Version 14.6.13 (7474)

## 1900 MHz System Verification at 20.0 dBm (100 mW)

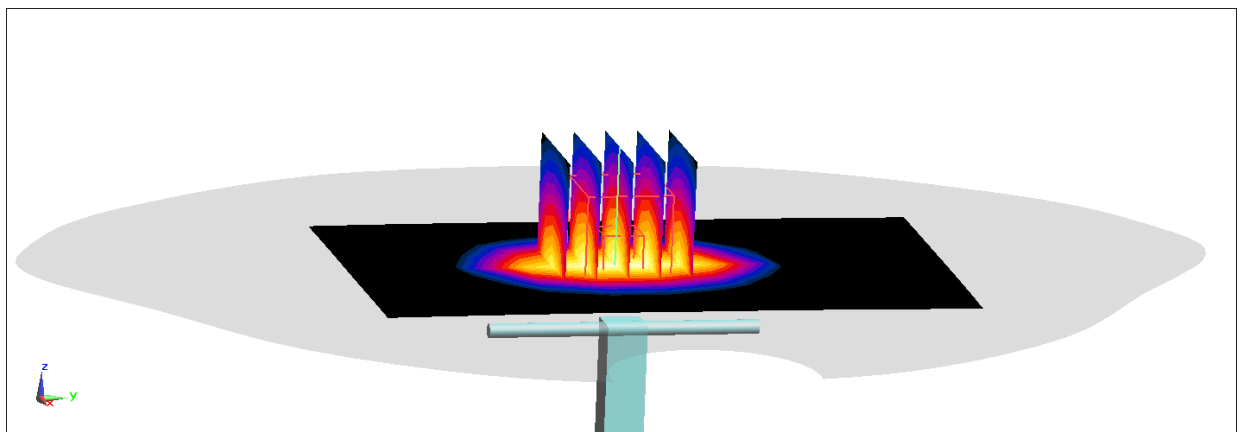
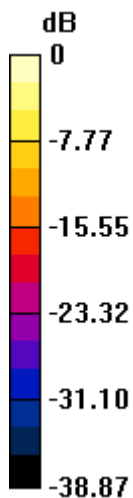
**Area Scan (7x11x1):** Measurement grid:  $dx=15\text{mm}$ ,  $dy=15\text{mm}$

**Zoom Scan (5x5x7)/Cube 0:** Measurement grid:  $dx=8\text{mm}$ ,  $dy=8\text{mm}$ ,  $dz=5\text{mm}$

Peak SAR (extrapolated) = 7.37 W/kg

**SAR(1 g) = 4.02 W/kg; SAR(10 g) = 2.07 W/kg**

Deviation(1 g) = 0.75%



0 dB = 5.98 W/kg = 7.77 dBW/kg

# PCTEST

**DUT: Dipole 1900 MHz; Type: D1900V2; Serial: 5d026**

Communication System: UID 0, CW; Frequency: 1900 MHz; Duty Cycle: 1:1

Medium: 1900 Body Medium parameters used (interpolated):

$f = 1900 \text{ MHz}$ ;  $\sigma = 1.58 \text{ S/m}$ ;  $\epsilon_r = 51.599$ ;  $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section; Space: 1.0 cm

Test Date: 01-22-2020; Ambient Temp: 21.1°C; Tissue Temp: 20.0°C

Probe: EX3DV4 - SN7420; ConvF(7.64, 7.64, 7.64) @ 1900 MHz; Calibrated: 11/21/2019

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Electronics: DAE4 Sn1213; Calibrated: 11/13/2019

Phantom: Twin-SAM V4.0; Type: QD 000 P40 CA; Serial: 1275

Measurement SW: DASY52, Version 52.10 (3);SEMCAD X Version 14.6.13 (7474)

## 1900 MHz System Verification at 20.0 dBm (100 mW)

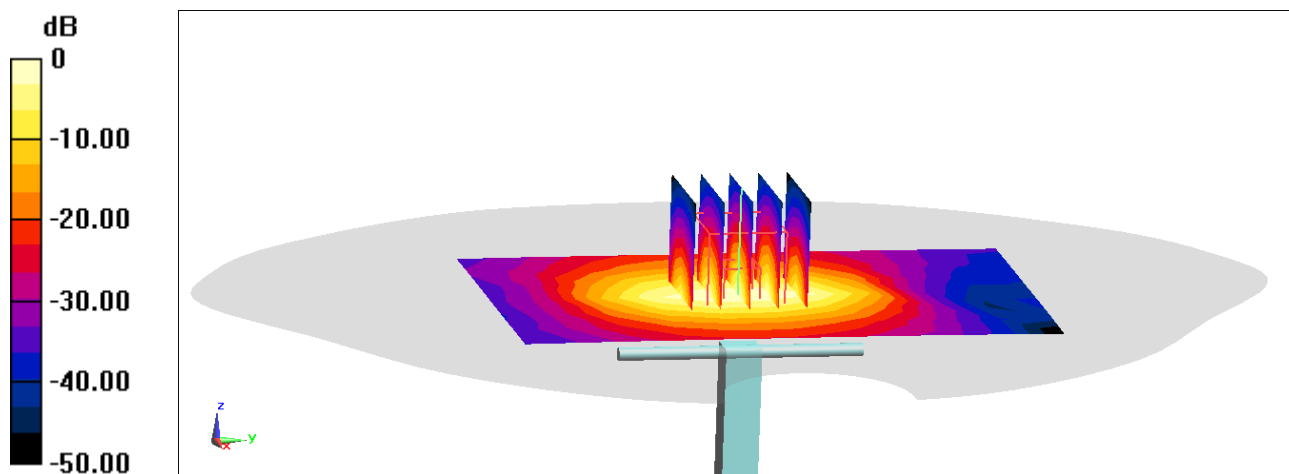
**Area Scan (7x11x1):** Measurement grid:  $dx=15\text{mm}$ ,  $dy=15\text{mm}$

**Zoom Scan (5x5x7)/Cube 0:** Measurement grid:  $dx=8\text{mm}$ ,  $dy=8\text{mm}$ ,  $dz=5\text{mm}$

Peak SAR (extrapolated) = 7.51 W/kg

**SAR(1 g) = 4.08 W/kg; SAR(10 g) = 2.1 W/kg**

Deviation(1 g) = 2.26%



0 dB = 5.99 W/kg = 7.77 dBW/kg

# PCTEST

**DUT: Dipole 2300 MHz; Type: D2300V3; Serial: 1038**

Communication System: UID 0, CW; Frequency: 2300 MHz; Duty Cycle: 1:1

Medium: 2300 MHz Body Medium parameters used:

$f = 2300 \text{ MHz}$ ;  $\sigma = 1.829 \text{ S/m}$ ;  $\epsilon_r = 52.614$ ;  $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section; Space: 1.0 cm

Test Date: 01-26-2020; Ambient Temp: 23.1°C; Tissue Temp: 21.1°C

Probe: EX3DV4 - SN7532; ConvF(7.93, 7.93, 7.93) @ 2300 MHz; Calibrated: 4/12/2019

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Electronics: DAE4 Sn501; Calibrated: 4/17/2019

Phantom: Twin-SAM V4.0; Type: QD 000 P40 CC; Serial: 1179

Measurement SW: DASY52, Version 52.10 (3);SEMCAD X Version 14.6.13 (7474)

## 2300 MHz System Verification at 20.0 dBm (100 mW)

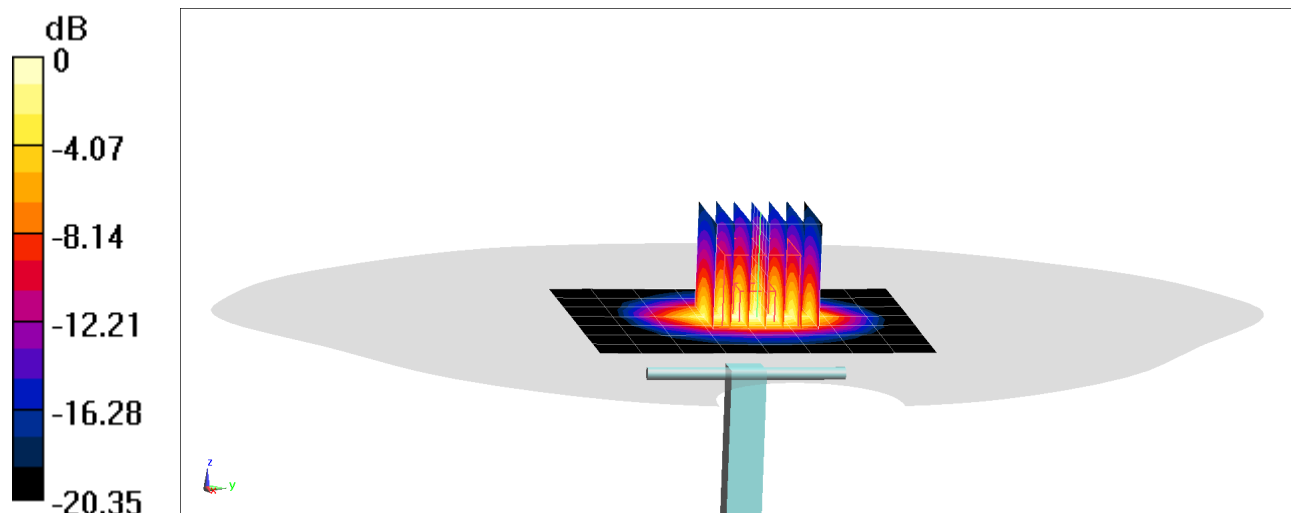
**Area Scan (8x9x1):** Measurement grid:  $dx=12\text{mm}$ ,  $dy=12\text{mm}$

**Zoom Scan (7x7x7)/Cube 0:** Measurement grid:  $dx=5\text{mm}$ ,  $dy=5\text{mm}$ ,  $dz=5\text{mm}$

Peak SAR (extrapolated) = 8.62 W/kg

**SAR(1 g) = 4.41 W/kg; SAR(10 g) = 2.11 W/kg**

Deviation(1 g) = -5.57%



# PCTEST

**DUT: Dipole 2450 MHz; Type: D2450V2; Serial: 921**

Communication System: UID 0, CW; Frequency: 2450 MHz; Duty Cycle: 1:1

Medium: 2450 Body Medium parameters used:

$f = 2450 \text{ MHz}$ ;  $\sigma = 2.022 \text{ S/m}$ ;  $\epsilon_r = 50.678$ ;  $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section; Space: 1.0 cm

Test Date: 12-18-2019; Ambient Temp: 20.6°C; Tissue Temp: 21.6°C

Probe: EX3DV4 - SN7532; ConvF(7.66, 7.66, 7.66) @ 2450 MHz; Calibrated: 4/12/2019

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Electronics: DAE4 Sn501; Calibrated: 4/17/2019

Phantom: Twin-SAM V4.0; Type: QD 000 P40 CC; Serial: 1179

Measurement SW: DASY52, Version 52.10 (3);SEMCAD X Version 14.6.13 (7474)

## 2450 MHz System Verification at 20.0 dBm (100 mW)

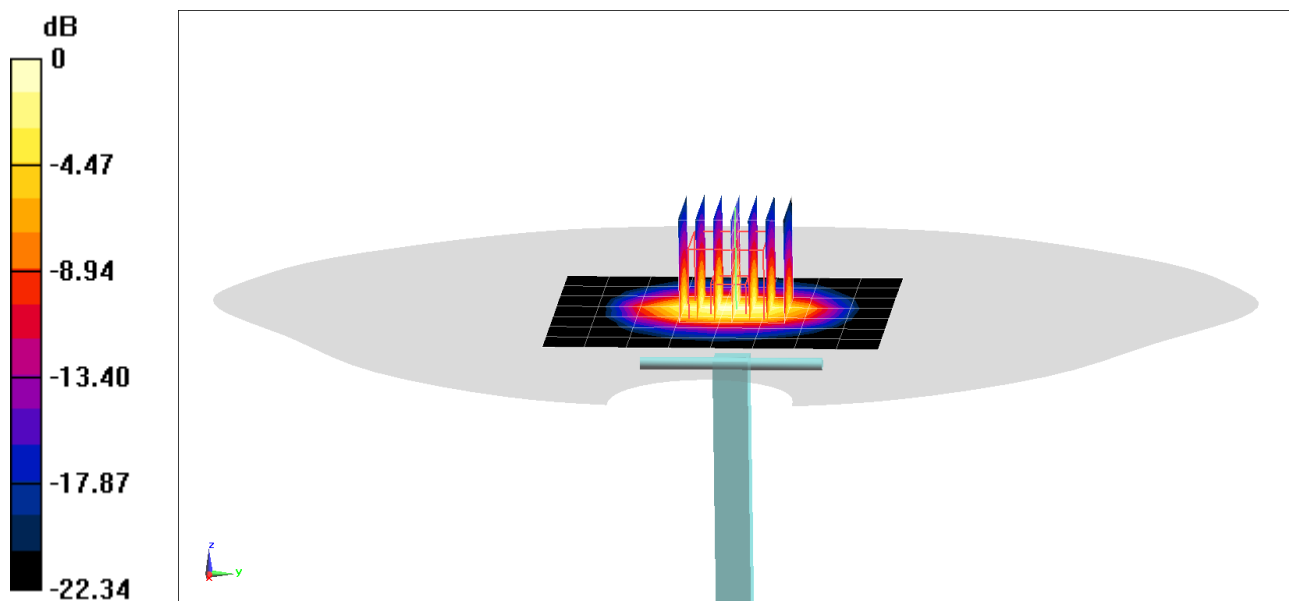
**Area Scan (8x9x1):** Measurement grid: dx=12mm, dy=12mm

**Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Peak SAR (extrapolated) = 10.9 W/kg

**SAR(1 g) = 5.32 W/kg; SAR(10 g) = 2.45 W/kg**

Deviation(1 g) = 4.72%



0 dB = 8.82 W/kg = 9.45 dBW/kg

# PCTEST

**DUT: Dipole 2450 MHz; Type: D2450V2; Serial: 921**

Communication System: UID 0, CW; Frequency: 2450 MHz; Duty Cycle: 1:1

Medium: 2450 Body Medium parameters used:

$f = 2450$  MHz;  $\sigma = 1.948$  S/m;  $\epsilon_r = 50.877$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section; Space: 1.0 cm

Test Date: 01-14-2020; Ambient Temp: 22.1°C; Tissue Temp: 21.0°C

Probe: EX3DV4 - SN7532; ConvF(7.66, 7.66, 7.66) @ 2450 MHz; Calibrated: 4/12/2019

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Electronics: DAE4 Sn501; Calibrated: 4/17/2019

Phantom: Twin-SAM V4.0; Type: QD 000 P40 CC; Serial: 1179

Measurement SW: DASY52, Version 52.10 (3);SEMCAD X Version 14.6.13 (7474)

## 2450 MHz System Verification at 20.0 dBm (100 mW)

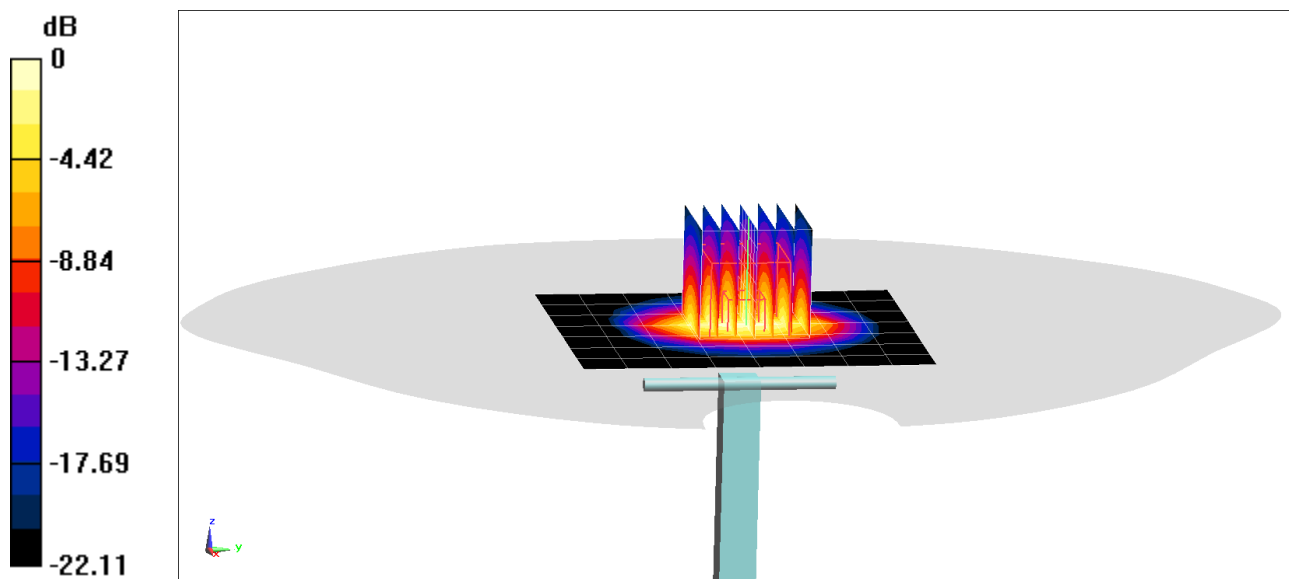
**Area Scan (8x9x1):** Measurement grid: dx=12mm, dy=12mm

**Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Peak SAR (extrapolated) = 10.5 W/kg

**SAR(1 g) = 5.12 W/kg; SAR(10 g) = 2.36 W/kg**

Deviation(1 g) = 0.79%



# PCTEST

**DUT: Dipole 2450 MHz; Type: D2450V2; Serial: 945**

Communication System: UID 0, CW; Frequency: 2450 MHz; Duty Cycle: 1:1

Medium: 2450 Body Medium parameters used:

$f = 2450 \text{ MHz}$ ;  $\sigma = 2.032 \text{ S/m}$ ;  $\epsilon_r = 51.895$ ;  $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section; Space: 1.0 cm

Test Date: 01-24-2020; Ambient Temp: 22.5°C; Tissue Temp: 20.9°C

Probe: EX3DV4 - SN7532; ConvF(7.66, 7.66, 7.66) @ 2450 MHz; Calibrated: 4/12/2019

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Electronics: DAE4 Sn501; Calibrated: 4/17/2019

Phantom: Twin-SAM V4.0; Type: QD 000 P40 CC; Serial: 1179

Measurement SW: DASY52, Version 52.10 (3);SEMCAD X Version 14.6.13 (7474)

## 2450 MHz System Verification at 20.0 dBm (100 mW)

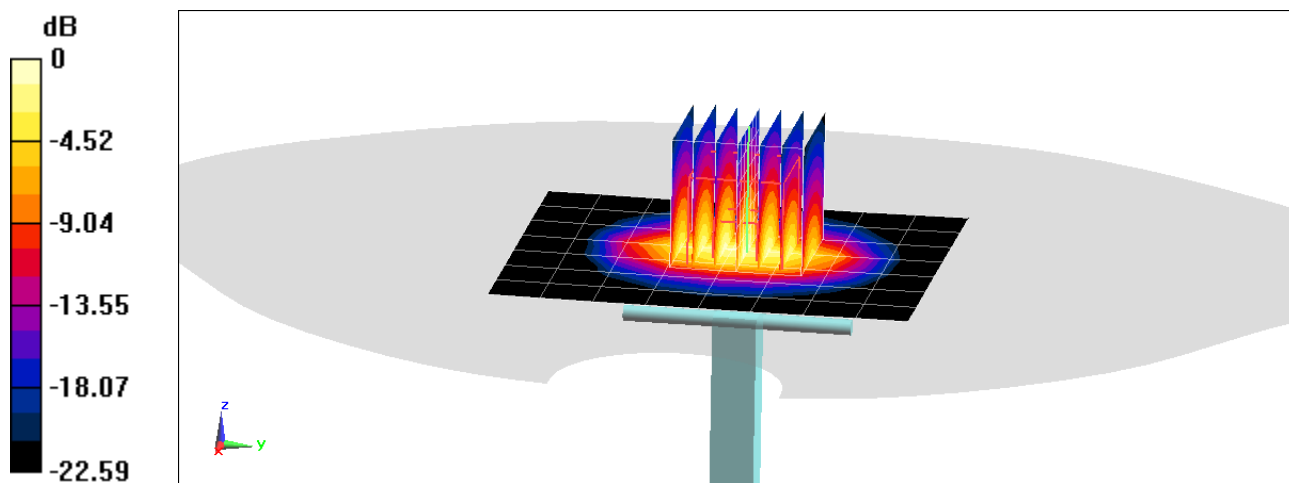
**Area Scan (8x9x1):** Measurement grid:  $dx=12\text{mm}$ ,  $dy=12\text{mm}$

**Zoom Scan (7x7x7)/Cube 0:** Measurement grid:  $dx=5\text{mm}$ ,  $dy=5\text{mm}$ ,  $dz=5\text{mm}$

Peak SAR (extrapolated) = 10.8 W/kg

**SAR(1 g) = 5.22 W/kg; SAR(10 g) = 2.38 W/kg**

Deviation(1 g) = 5.67%



# PCTEST

**DUT: Dipole 2450 MHz; Type: D2450V2; Serial: 945**

Communication System: UID 0, CW; Frequency: 2450 MHz; Duty Cycle: 1:1

Medium: 2450 MHz Body Medium parameters used:

$f = 2450 \text{ MHz}$ ;  $\sigma = 2.023 \text{ S/m}$ ;  $\epsilon_r = 53.116$ ;  $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section; Space: 1.0 cm

Test Date: 01-27-2020; Ambient Temp: 21.9°C; Tissue Temp: 20.4°C

Probe: EX3DV4 - SN3949; ConvF(7.75, 7.75, 7.75) @ 2450 MHz; Calibrated: 8/29/2019

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Electronics: DAE4 Sn1408; Calibrated: 8/12/2019

Phantom: Twin-SAM V4.0; Type: QD 000 P40 CC; Serial: 1596

Measurement SW: DASY52, Version 52.10 (3);SEMCAD X Version 14.6.13 (7474)

## 2450 MHz System Verification at 20.0 dBm (100 mW)

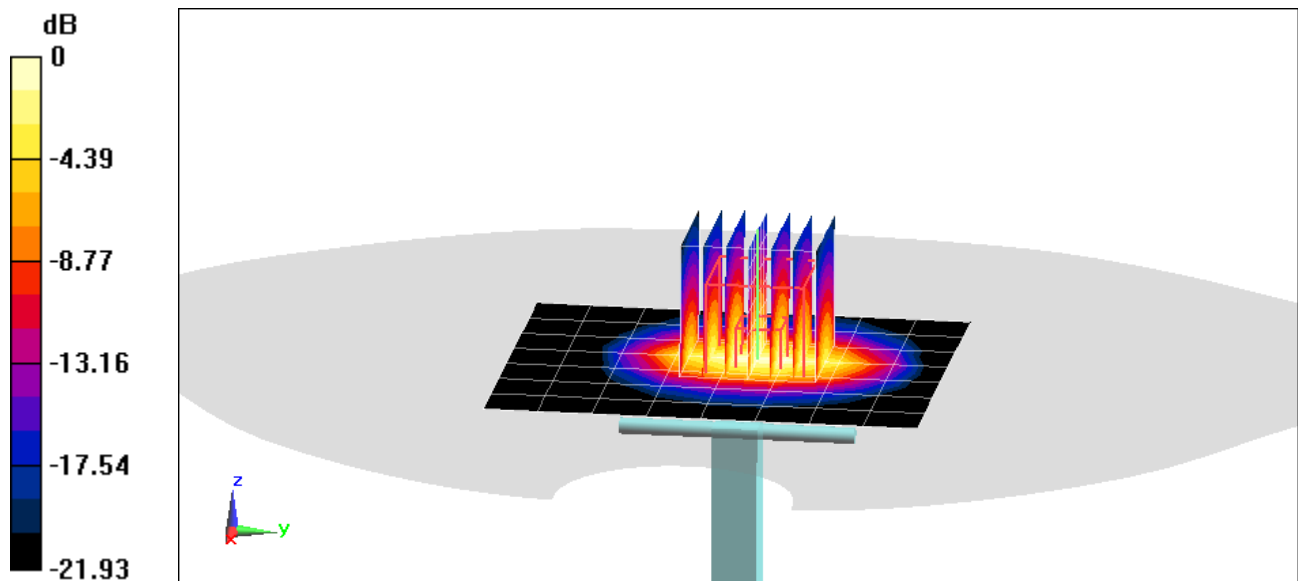
**Area Scan (8x9x1):** Measurement grid:  $dx=12\text{mm}$ ,  $dy=12\text{mm}$

**Zoom Scan (7x7x7)/Cube 0:** Measurement grid:  $dx=5\text{mm}$ ,  $dy=5\text{mm}$ ,  $dz=5\text{mm}$

Peak SAR (extrapolated) = 10.8 W/kg

**SAR(1 g) = 5.29 W/kg; SAR(10 g) = 2.46 W/kg**

Deviation(1 g) = 7.09%



0 dB = 8.80 W/kg = 9.44 dBW/kg

# PCTEST

**DUT: Dipole 2600 MHz; Type: D2600V2; Serial: 1009**

Communication System: UID 0, CW; Frequency: 2600 MHz; Duty Cycle: 1:1

Medium: 2450 Body Medium parameters used:

$f = 2600 \text{ MHz}$ ;  $\sigma = 2.245 \text{ S/m}$ ;  $\epsilon_r = 51.234$ ;  $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section; Space: 1.0 cm

Test Date: 01-24-2020; Ambient Temp: 22.5°C; Tissue Temp: 20.9°C

Probe: EX3DV4 - SN7532; ConvF(7.47, 7.47, 7.47) @ 2600 MHz; Calibrated: 4/12/2019

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Electronics: DAE4 Sn501; Calibrated: 4/17/2019

Phantom: Twin-SAM V4.0; Type: QD 000 P40 CC; Serial: 1179

Measurement SW: DASY52, Version 52.10 (3);SEMCAD X Version 14.6.13 (7474)

## 2600 MHz System Verification at 20.0 dBm (100 mW)

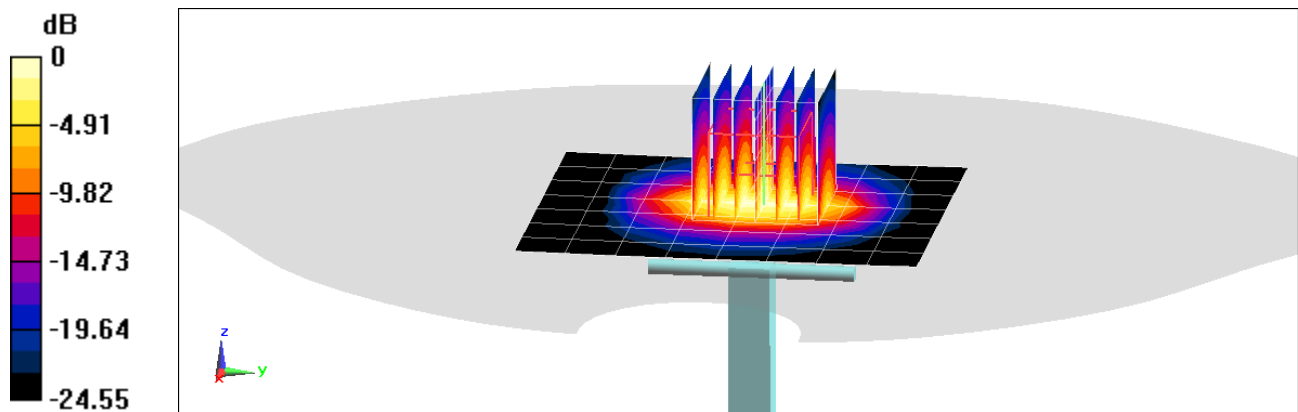
**Area Scan (8x9x1):** Measurement grid: dx=12mm, dy=12mm

**Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Peak SAR (extrapolated) = 12.7 W/kg

**SAR(1 g) = 5.7 W/kg; SAR(10 g) = 2.47 W/kg**

Deviation(1 g) = 2.70%



0 dB = 9.90 W/kg = 9.96 dBW/kg

# PCTEST

**DUT: Dipole 2600 MHz; Type: D2600V2; Serial: 1009**

Communication System: UID 0, CW; Frequency: 2600 MHz; Duty Cycle: 1:1

Medium: 2450 MHz Body Medium parameters used:

$f = 2600 \text{ MHz}$ ;  $\sigma = 2.198 \text{ S/m}$ ;  $\epsilon_r = 52.6$ ;  $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section; Space: 1.0 cm

Test Date: 01-27-2020; Ambient Temp: 21.9°C; Tissue Temp: 20.4°C

Probe: EX3DV4 - SN3949; ConvF(7.69, 7.69, 7.69) @ 2600 MHz; Calibrated: 8/29/2019

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Electronics: DAE4 Sn1408; Calibrated: 8/12/2019

Phantom: Twin-SAM V4.0; Type: QD 000 P40 CC; Serial: 1596

Measurement SW: DASY52, Version 52.10 (3);SEMCAD X Version 14.6.13 (7474)

## **2600 MHz System Verification at 20.0 dBm (100 mW)**

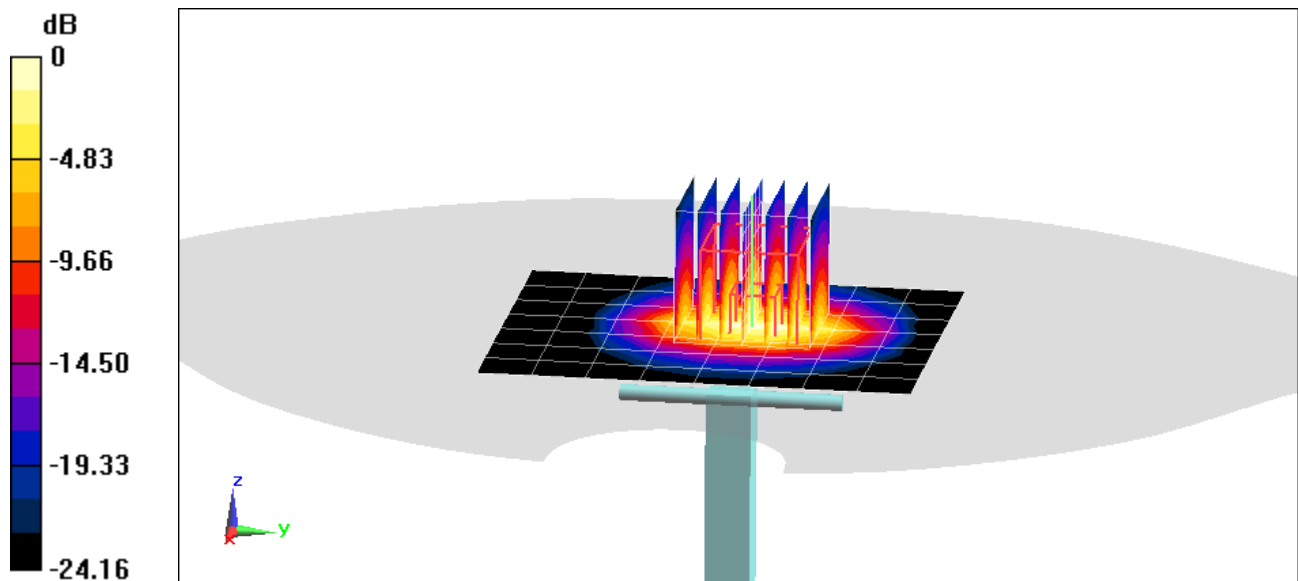
**Area Scan (8x9x1):** Measurement grid: dx=12mm, dy=12mm

**Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Peak SAR (extrapolated) = 11.7 W/kg

**SAR(1 g) = 5.34 W/kg; SAR(10 g) = 2.34 W/kg**

Deviation(1 g) = -3.78%



0 dB = 9.27 W/kg = 9.67 dBW/kg

# PCTEST

**DUT: Dipole 3500 MHz; Type: D3500V2; Serial: 1068**

Communication System: UID 0, CW; Frequency: 3500 MHz; Duty Cycle: 1:1

Medium: 3500 - 3700 MHz Body Medium parameters used:

$f = 3500$  MHz;  $\sigma = 3.361$  S/m;  $\epsilon_r = 49.551$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section; Space: 1.0 cm

Test Date: 01-20-2019; Ambient Temp: 21.4°C; Tissue Temp: 20.8°C

Probe: EX3DV4 - SN3949; ConvF(6.88, 6.88, 6.88) @ 3500 MHz; Calibrated: 8/29/2019

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Electronics: DAE4 Sn1408; Calibrated: 8/12/2019

Phantom: Twin-SAM V4.0; Type: QD 000 P40 CC; Serial: 1596

Measurement SW: DASY52, Version 52.10 (3);SEMCAD X Version 14.6.13 (7474)

## **3500 MHz System Verification at 20.0 dBm (100 mW)**

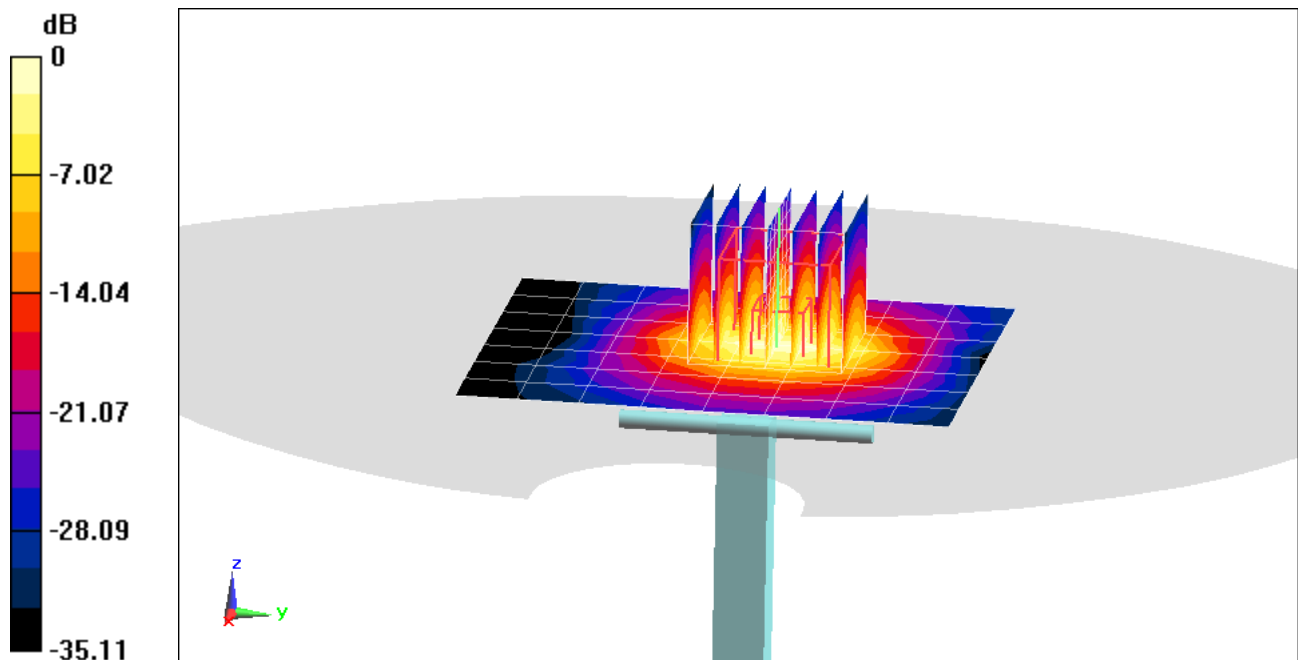
**Area Scan (8x9x1):** Measurement grid: dx=12mm, dy=12mm

**Zoom Scan (7x7x8)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=4mm

Peak SAR (extrapolated) = 15.9 W/kg

**SAR(1 g) = 6.16 W/kg; SAR(10 g) = 2.28 W/kg**

Deviation(1 g) = -5.67%



0 dB = 12.0 W/kg = 10.79 dBW/kg

# PCTEST

**DUT: Dipole 3700 MHz; Type: D3700V2; Serial: 1029**

Communication System: UID 0, CW; Frequency: 3700 MHz; Duty Cycle: 1:1

Medium: 3500 - 3700 MHz Body Medium parameters used (interpolated):

$f = 3700 \text{ MHz}$ ;  $\sigma = 3.628 \text{ S/m}$ ;  $\epsilon_r = 48.993$ ;  $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section; Space: 1.0 cm

Test Date: 01-20-2019; Ambient Temp: 21.4°C; Tissue Temp: 20.8°C

Probe: EX3DV4 - SN3949; ConvF(6.78, 6.78, 6.78) @ 3700 MHz; Calibrated: 8/29/2019

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Electronics: DAE4 Sn1408; Calibrated: 8/12/2019

Phantom: Twin-SAM V4.0; Type: QD 000 P40 CC; Serial: 1596

Measurement SW: DASY52, Version 52.10 (3);SEMCAD X Version 14.6.13 (7474)

## **3700 MHz System Verification at 20.0 dBm (100 mW)**

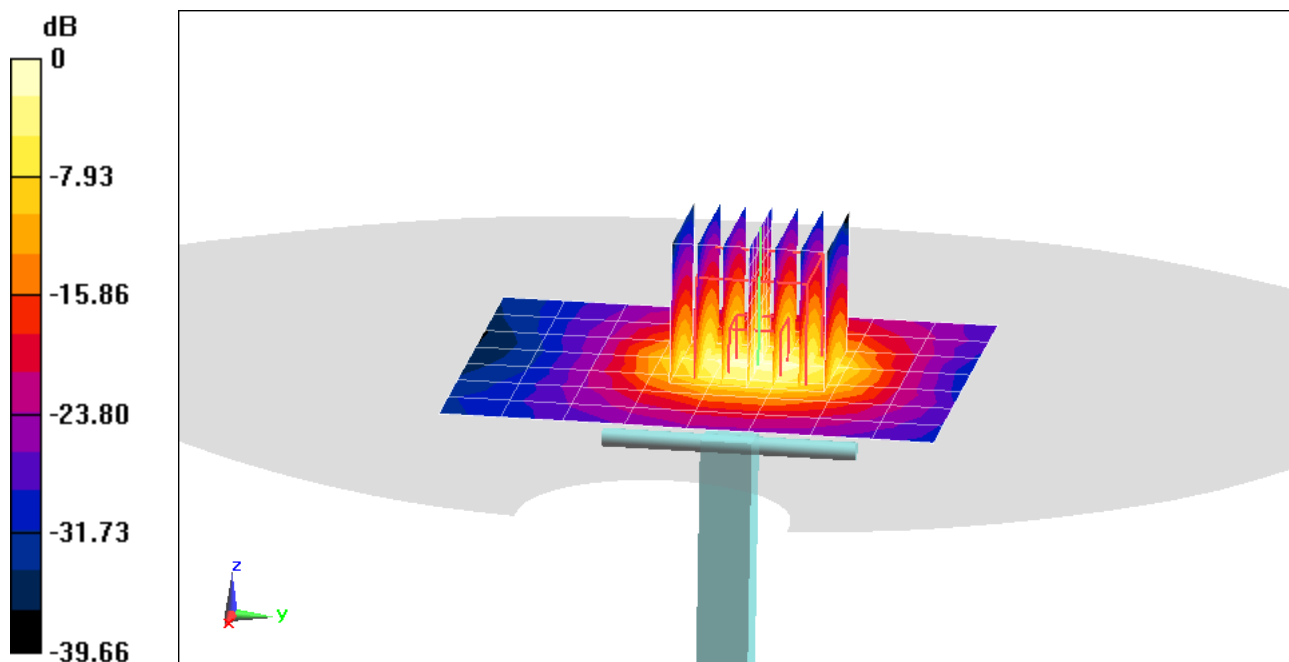
**Area Scan (8x9x1):** Measurement grid:  $dx=12\text{mm}$ ,  $dy=12\text{mm}$

**Zoom Scan (7x7x8)/Cube 0:** Measurement grid:  $dx=5\text{mm}$ ,  $dy=5\text{mm}$ ,  $dz=4\text{mm}$

Peak SAR (extrapolated) = 17.2 W/kg

**SAR(1 g) = 6.28 W/kg; SAR(10 g) = 2.22 W/kg**

Deviation(1 g) = -3.24%



0 dB = 12.7 W/kg = 11.04 dBW/kg

# PCTEST

**DUT: Dipole 5 GHz; Type: D5GHzV2; Serial: 1123**

Communication System: UID 0, CW; Frequency: 5250 MHz; Duty Cycle: 1:1

Medium: 5GHz Body Medium parameters used (interpolated):

$f = 5250 \text{ MHz}$ ;  $\sigma = 5.186 \text{ S/m}$ ;  $\epsilon_r = 47.606$ ;  $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section; Space: 1.0 cm

Test Date: 12-23-2019; Ambient Temp: 21.1°C; Tissue Temp: 19.5°C

Probe: EX3DV4 - SN7491; ConvF(4.87, 4.87, 4.87) @ 5250 MHz; Calibrated: 7/16/2019

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Electronics: DAE4 Sn1402; Calibrated: 7/10/2019

Phantom: Twin-SAM V8.0; Type: QD 000 P41 Ax; Serial: 1936

Measurement SW: DASY52, Version 52.10 (3);SEMCAD X Version 14.6.13 (7474)

## 5250 MHz System Verification at 17.0 dBm (50 mW)

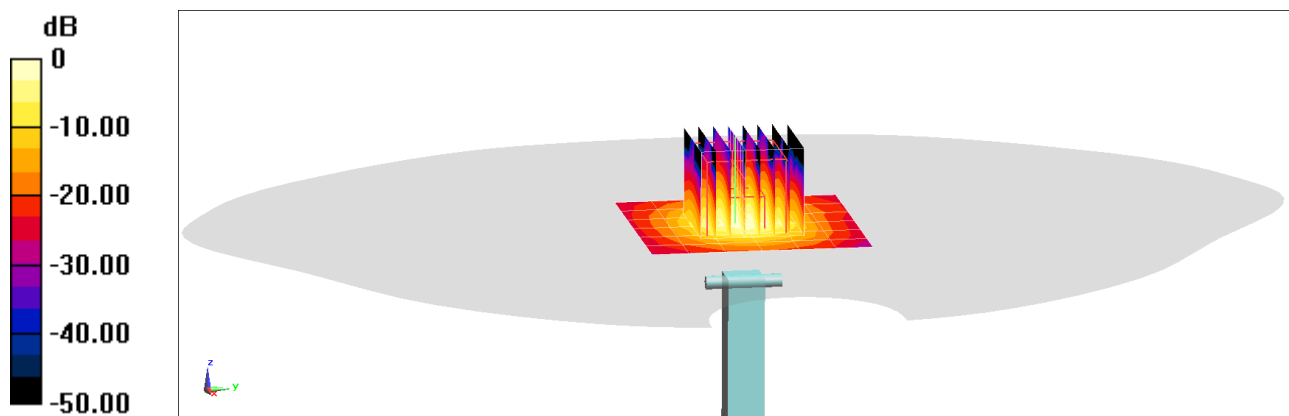
**Area Scan (7x7x1):** Measurement grid: dx=10mm, dy=10mm

**Zoom Scan (8x8x7)/Cube 0:** Measurement grid: dx=4mm, dy=4mm, dz=1.4mm; Graded Ratio: 1.4

Peak SAR (extrapolated) = 14.0 W/kg

**SAR(1 g) = 3.75 W/kg; SAR(10 g) = 1.04 W/kg**

Deviation(1 g) = 1.35%



# PCTEST

**DUT: Dipole 5 GHz; Type: D5GHzV2; Serial: 1123**

Communication System: UID 0, CW; Frequency: 5600 MHz; Duty Cycle: 1:1

Medium: 5GHz Body Medium parameters used:

$f = 5600 \text{ MHz}$ ;  $\sigma = 5.674 \text{ S/m}$ ;  $\epsilon_r = 46.932$ ;  $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section; Space: 1.0 cm

Test Date: 12-23-2019; Ambient Temp: 21.1°C; Tissue Temp: 19.5°C

Probe: EX3DV4 - SN7491; ConvF(4.23, 4.23, 4.23) @ 5600 MHz; Calibrated: 7/16/2019

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Electronics: DAE4 Sn1402; Calibrated: 7/10/2019

Phantom: Twin-SAM V8.0; Type: QD 000 P41 Ax; Serial: 1936

Measurement SW: DASY52, Version 52.10 (3);SEMCAD X Version 14.6.13 (7474)

## 5600 MHz System Verification at 17.0 dBm (50 mW)

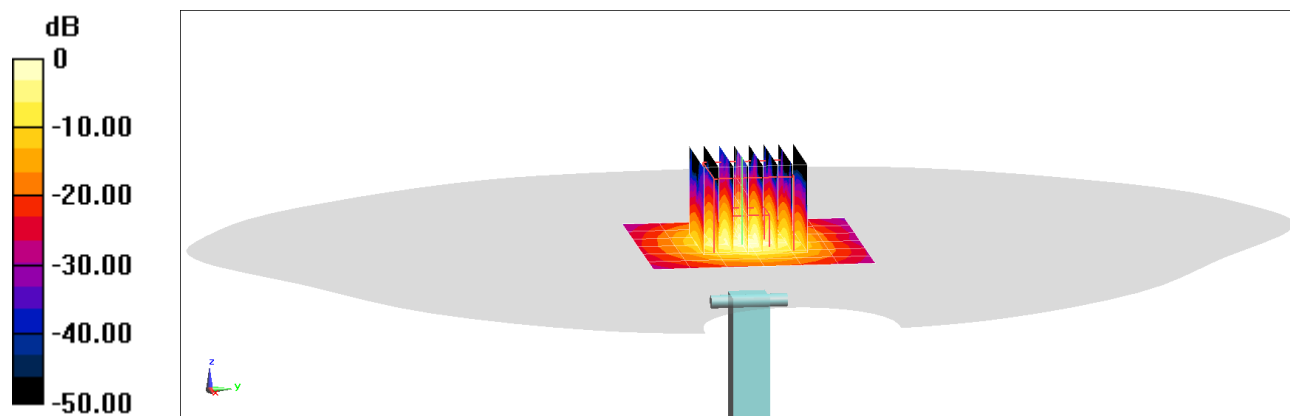
**Area Scan (7x7x1):** Measurement grid:  $dx=10\text{mm}$ ,  $dy=10\text{mm}$

**Zoom Scan (8x8x7)/Cube 0:** Measurement grid:  $dx=4\text{mm}$ ,  $dy=4\text{mm}$ ,  $dz=1.4\text{mm}$ ; Graded Ratio: 1.4

Peak SAR (extrapolated) = 16.8 W/kg

**SAR(1 g) = 4.02 W/kg; SAR(10 g) = 1.1 W/kg**

Deviation(1 g) = 3.61%



0 dB = 9.56 W/kg = 9.80 dBW/kg

# PCTEST

**DUT: Dipole 5 GHz; Type: D5GHzV2; Serial: 1123**

Communication System: UID 0, CW; Frequency: 5750 MHz; Duty Cycle: 1:1

Medium: 5GHz Body Medium parameters used (interpolated):

$f = 5750 \text{ MHz}$ ;  $\sigma = 5.901 \text{ S/m}$ ;  $\epsilon_r = 46.627$ ;  $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section; Space: 1.0 cm

Test Date: 12-23-2019; Ambient Temp: 21.1°C; Tissue Temp: 19.5°C

Probe: EX3DV4 - SN7491; ConvF(4.32, 4.32, 4.32) @ 5750 MHz; Calibrated: 7/16/2019

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Electronics: DAE4 Sn1402; Calibrated: 7/10/2019

Phantom: Twin-SAM V8.0; Type: QD 000 P41 Ax; Serial: 1936

Measurement SW: DASY52, Version 52.10 (3);SEMCAD X Version 14.6.13 (7474)

## **5750 MHz System Verification at 17.0 dBm (50 mW)**

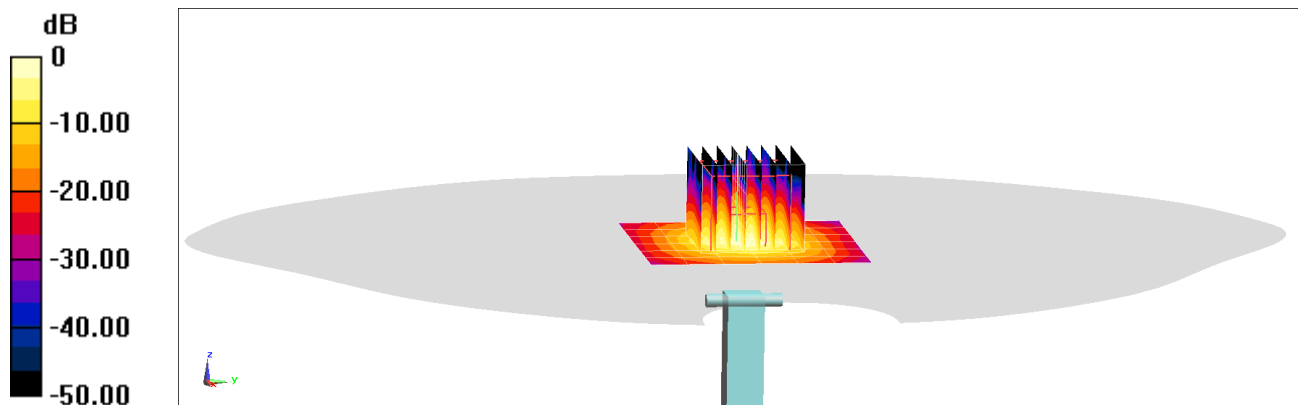
**Area Scan (7x7x1):** Measurement grid: dx=10mm, dy=10mm

**Zoom Scan (8x8x7)/Cube 0:** Measurement grid: dx=4mm, dy=4mm, dz=1.4mm; Graded Ratio: 1.4

Peak SAR (extrapolated) = 15.5 W/kg

**SAR(1 g) = 3.58 W/kg; SAR(10 g) = 0.992 W/kg**

Deviation(1 g) = -4.15%



0 dB = 8.79 W/kg = 9.44 dBW/kg

## APPENDIX C: SAR TISSUE SPECIFICATIONS

|                                               |                                                                                                   |                              |                                        |
|-----------------------------------------------|---------------------------------------------------------------------------------------------------|------------------------------|----------------------------------------|
| <b>FCC ID:</b> BCGA2069                       |  <b>PCTEST</b> | <b>SAR EVALUATION REPORT</b> | <b>Approved by:</b><br>Quality Manager |
| <b>Test Dates:</b><br>12/18/2019 – 01/28/2020 | <b>DUT Type:</b><br>Tablet Device                                                                 |                              | <b>APPENDIX C:</b><br>Page 1 of 3      |

#### Measurement Procedure for Tissue verification:

- 1) The network analyzer and probe system was configured and calibrated.
- 2) The probe was immersed in the tissue. The tissue was placed in a nonmetallic container. Trapped air bubbles beneath the flange were minimized by placing the probe at a slight angle.
- 3) The complex admittance with respect to the probe aperture was measured
- 4) The complex relative permittivity  $\epsilon'$  can be calculated from the below equation (Pournaropoulos and Misra):

$$Y = \frac{j2\omega\epsilon_r\epsilon_0}{[\ln(b/a)]^2} \int_a^b \int_a^b \int_0^\pi \cos\phi' \frac{\exp[-j\omega r(\mu_0\epsilon_r'\epsilon_0)^{1/2}]}{r} d\phi' d\rho' d\rho$$

where  $Y$  is the admittance of the probe in contact with the sample, the primed and unprimed coordinates refer to source and observation points, respectively,  $r^2 = \rho^2 + \rho'^2 - 2\rho\rho' \cos\phi'$ ,  $\omega$  is the angular frequency, and  $j = \sqrt{-1}$ .

### 3 Composition / Information on ingredients

#### 3.2 Mixtures

**Description:** Aqueous solution with surfactants and inhibitors

#### Declarable, or hazardous components:

|                                                                        |                                                                                                                       |           |
|------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------|-----------|
| CAS: 107-21-1<br>EINECS: 203-473-3<br>Reg.nr.: 01-2119456816-28-0000   | <b>Ethanedial</b><br>STOT RE 2, H373;<br>Acute Tox. 4, H302                                                           | >1.0-4.9% |
| CAS: 68608-26-4<br>EINECS: 271-781-5<br>Reg.nr.: 01-2119527859-22-0000 | <b>Sodium petroleum sulfonate</b><br>Eye Irrit. 2, H319                                                               | < 2.9%    |
| CAS: 107-41-5<br>EINECS: 203-489-0<br>Reg.nr.: 01-2119539582-35-0000   | <b>Hexylene Glycol / 2-Methyl-pentane-2,4-diol</b><br>Skin Irrit. 2, H315; Eye Irrit. 2, H319                         | < 2.9%    |
| CAS: 68920-66-1<br>NLP: 500-236-9<br>Reg.nr.: 01-2119489407-26-0000    | <b>Alkoxyated alcohol, &gt; C<sub>16</sub></b><br>Aquatic Chronic 2, H411;<br>Skin Irrit. 2, H315; Eye Irrit. 2, H319 | < 2.0%    |

#### Additional information:

For the wording of the listed risk phrases refer to section 16.

Not mentioned CAS-, EINECS- or registration numbers are to be regarded as Proprietary/Confidential.

The specific chemical identity and/or exact percentage concentration of proprietary components is withheld as a trade secret.

**Figure C-1**

Note: Liquid recipes are proprietary SPEAG. Since the composition is approximate to the actual liquids utilized, the manufacturer tissue-equivalent liquid data sheets are provided below.

|                                               |                                                                                                   |                              |                                        |
|-----------------------------------------------|---------------------------------------------------------------------------------------------------|------------------------------|----------------------------------------|
| <b>FCC ID:</b> BCGA2069                       |  <b>PCTEST</b> | <b>SAR EVALUATION REPORT</b> | <b>Approved by:</b><br>Quality Manager |
| <b>Test Dates:</b><br>12/18/2019 – 01/28/2020 | <b>DUT Type:</b><br>Tablet Device                                                                 |                              | <b>APPENDIX C:</b><br>Page 2 of 3      |

## Measurement Certificate / Material Test

Item Name **Body Tissue Simulating Liquid (MBBL600-6000V6)**  
Product No. SL AAM U16 BC (Batch: 181029-1)  
Manufacturer SPEAG

## Measurement Method

TSL dielectric parameters measured using calibrated DAK probe.

## Target Parameters

Target parameters as defined in the KDB 865664 compliance standard.

## Test Condition

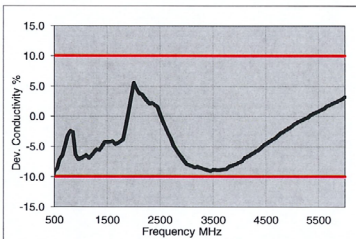
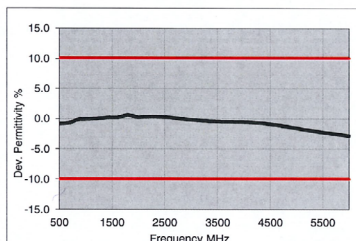
Ambient Condition 22°C ; 30% humidity  
TSL Temperature 22°C  
Test Date 30-Oct-18  
Operator CL

## Additional Information

TSL Density  
TSL Heat-capacity

## Results

| f [MHz] | Measured |      |       | Target |       | Diff.to Target [%] |         |
|---------|----------|------|-------|--------|-------|--------------------|---------|
|         | e'       | e''  | sigma | eps    | sigma | Δ-eps              | Δ-sigma |
| 800     | 55.1     | 21.3 | 0.95  | 55.3   | 0.97  | -0.4               | -2.1    |
| 825     | 55.1     | 20.8 | 0.96  | 55.2   | 0.98  | -0.3               | -2.0    |
| 835     | 55.1     | 20.6 | 0.96  | 55.1   | 0.99  | 0.0                | -2.5    |
| 850     | 55.1     | 20.4 | 0.96  | 55.2   | 0.99  | -0.1               | -3.0    |
| 900     | 55.0     | 19.7 | 0.98  | 55.0   | 1.05  | 0.0                | -6.7    |
| 1400    | 54.2     | 15.6 | 1.22  | 54.1   | 1.28  | 0.2                | -4.7    |
| 1450    | 54.1     | 15.4 | 1.24  | 54.0   | 1.30  | 0.2                | -4.6    |
| 1500    | 54.1     | 15.3 | 1.27  | 53.9   | 1.33  | 0.3                | -4.5    |
| 1550    | 54.0     | 15.1 | 1.30  | 53.9   | 1.36  | 0.2                | -4.4    |
| 1600    | 53.9     | 15.0 | 1.33  | 53.8   | 1.39  | 0.2                | -4.3    |
| 1625    | 53.9     | 14.9 | 1.35  | 53.8   | 1.41  | 0.3                | -4.3    |
| 1640    | 53.9     | 14.9 | 1.36  | 53.7   | 1.42  | 0.3                | -4.2    |
| 1650    | 53.8     | 14.9 | 1.36  | 53.7   | 1.43  | 0.2                | -4.9    |
| 1700    | 53.8     | 14.8 | 1.40  | 53.6   | 1.46  | 0.4                | -4.1    |
| 1750    | 53.7     | 14.7 | 1.43  | 53.4   | 1.49  | 0.5                | -4.0    |
| 1800    | 53.7     | 14.6 | 1.46  | 53.3   | 1.52  | 0.8                | -3.9    |
| 1810    | 53.7     | 14.6 | 1.47  | 53.3   | 1.52  | 0.8                | -3.3    |
| 1825    | 53.7     | 14.6 | 1.48  | 53.3   | 1.52  | 0.8                | -2.6    |
| 1850    | 53.6     | 14.5 | 1.50  | 53.3   | 1.52  | 0.6                | -1.3    |
| 1900    | 53.5     | 14.5 | 1.53  | 53.3   | 1.52  | 0.4                | 0.7     |
| 1950    | 53.5     | 14.5 | 1.57  | 53.3   | 1.52  | 0.4                | 3.3     |
| 2000    | 53.4     | 14.4 | 1.60  | 53.3   | 1.52  | 0.2                | 5.3     |
| 2050    | 53.4     | 14.4 | 1.64  | 53.2   | 1.57  | 0.3                | 4.5     |
| 2100    | 53.3     | 14.4 | 1.68  | 53.2   | 1.62  | 0.2                | 3.7     |
| 2150    | 53.3     | 14.4 | 1.72  | 53.1   | 1.66  | 0.4                | 3.6     |
| 2200    | 53.2     | 14.4 | 1.76  | 53.0   | 1.71  | 0.3                | 2.9     |
| 2250    | 53.1     | 14.4 | 1.81  | 53.0   | 1.76  | 0.2                | 2.8     |
| 2300    | 53.1     | 14.4 | 1.85  | 52.9   | 1.81  | 0.4                | 2.2     |
| 2350    | 53.0     | 14.5 | 1.89  | 52.8   | 1.85  | 0.3                | 2.2     |
| 2400    | 52.9     | 14.5 | 1.94  | 52.8   | 1.90  | 0.2                | 2.1     |
| 2450    | 52.9     | 14.5 | 1.98  | 52.7   | 1.95  | 0.4                | 1.5     |
| 2500    | 52.8     | 14.6 | 2.03  | 52.6   | 2.02  | 0.3                | 0.5     |
| 2550    | 52.7     | 14.6 | 2.07  | 52.6   | 2.09  | 0.2                | -1.0    |
| 2600    | 52.6     | 14.7 | 2.12  | 52.5   | 2.16  | 0.2                | -1.9    |



|      |      |      |      |      |      |      |      |
|------|------|------|------|------|------|------|------|
| 3500 | 51.1 | 15.5 | 3.02 | 51.3 | 3.31 | -0.4 | -8.8 |
| 3700 | 50.8 | 15.7 | 3.24 | 51.1 | 3.55 | -0.5 | -8.8 |
| 5200 | 48.1 | 18.2 | 5.27 | 49.0 | 5.30 | -1.8 | -0.6 |
| 5250 | 48.0 | 18.3 | 5.34 | 49.0 | 5.36 | -1.9 | -0.4 |
| 5300 | 47.9 | 18.4 | 5.41 | 48.9 | 5.42 | -2.0 | -0.2 |
| 5500 | 47.5 | 18.6 | 5.70 | 48.6 | 5.65 | -2.2 | 0.8  |
| 5600 | 47.3 | 18.8 | 5.84 | 48.5 | 5.77 | -2.3 | 1.3  |
| 5700 | 47.1 | 18.9 | 5.99 | 48.3 | 5.88 | -2.5 | 1.8  |
| 5800 | 47.0 | 19.0 | 6.14 | 48.2 | 6.00 | -2.6 | 2.3  |

TSL Dielectric Parameters

1

Figure C-2  
600 – 5800 MHz Body Tissue Equivalent Matter

|                                        |                                                                                     |                       |                                 |
|----------------------------------------|-------------------------------------------------------------------------------------|-----------------------|---------------------------------|
| FCC ID: BCGA2069                       |  | SAR EVALUATION REPORT | Approved by:<br>Quality Manager |
| Test Dates:<br>12/18/2019 – 01/28/2020 | DUT Type:<br>Tablet Device                                                          |                       | APPENDIX C:<br>Page 3 of 3      |

## APPENDIX D: SAR SYSTEM VALIDATION

|                                               |                                                                                                   |                              |                                        |
|-----------------------------------------------|---------------------------------------------------------------------------------------------------|------------------------------|----------------------------------------|
| <b>FCC ID:</b> BCGA2069                       |  <b>PCTEST</b> | <b>SAR EVALUATION REPORT</b> | <b>Approved by:</b><br>Quality Manager |
| <b>Test Dates:</b><br>12/18/2019 – 01/28/2020 | <b>DUT Type:</b><br>Tablet Device                                                                 |                              | <b>APPENDIX D:</b><br>Page 1 of 2      |

Per FCC KDB Publication 865664 D02v01r02, SAR system validation status should be documented to confirm measurement accuracy. The SAR systems (including SAR probes, system components and software versions) used for this device were validated against its performance specifications prior to the SAR measurements. Reference dipoles were used with the required tissue- equivalent media for system validation, according to the procedures outlined in FCC KDB Publication 865664 D01v01r04 and IEEE 1528-2013. Since SAR probe calibrations are frequency dependent, each probe calibration point was validated at a frequency within the valid frequency range of the probe calibration point, using the system that normally operates with the probe for routine SAR measurements and according to the required tissue-equivalent media.

A tabulated summary of the system validation status including the validation date(s), measurement frequencies, SAR probes and tissue dielectric parameters has been included.

**Table D-1**  
**SAR System Validation Summary – 1g**

| SAR System | Freq. (MHz) | Date       | Probe SN | Probe Cal Point |      | Cond. ( $\sigma$ ) | Perm. ( $\epsilon_r$ ) | CW VALIDATION |                 |                | MOD. VALIDATION |             |      |
|------------|-------------|------------|----------|-----------------|------|--------------------|------------------------|---------------|-----------------|----------------|-----------------|-------------|------|
|            |             |            |          |                 |      |                    |                        | SENSITIVITY   | PROBE LINEARITY | PROBE ISOTROPY | MOD. TYPE       | DUTY FACTOR | PAR  |
| AM1        | 750         | 7/15/2019  | 7421     | 750             | Body | 0.93               | 53.942                 | PASS          | PASS            | PASS           | N/A             | N/A         | N/A  |
| AM6        | 835         | 8/7/2019   | 7427     | 835             | Body | 0.959              | 54.066                 | PASS          | PASS            | PASS           | GMSK            | PASS        | N/A  |
| AM6        | 1750        | 3/12/2019  | 7427     | 1750            | Body | 1.456              | 51.525                 | PASS          | PASS            | PASS           | N/A             | N/A         | N/A  |
| AM2        | 1900        | 12/5/2019  | 7420     | 1900            | Body | 1.49               | 52.56                  | PASS          | PASS            | PASS           | GMSK            | PASS        | N/A  |
| AM4        | 2300        | 4/23/2019  | 7532     | 2300            | Body | 1.897              | 50.974                 | PASS          | PASS            | PASS           | N/A             | N/A         | N/A  |
| AM4        | 2450        | 4/23/2019  | 7532     | 2450            | Body | 2.027              | 50.762                 | PASS          | PASS            | PASS           | OFDM/TDD        | PASS        | PASS |
| AM3        | 2450        | 9/4/2019   | 3949     | 2450            | Body | 1.955              | 52.22                  | PASS          | PASS            | PASS           | OFDM/TDD        | PASS        | PASS |
| AM4        | 2600        | 4/23/2019  | 7532     | 2600            | Body | 2.167              | 50.527                 | PASS          | PASS            | PASS           | TDD             | PASS        | N/A  |
| AM3        | 2600        | 9/4/2019   | 3949     | 2600            | Body | 2.096              | 51.97                  | PASS          | PASS            | PASS           | TDD             | PASS        | N/A  |
| AM3        | 3500        | 12/11/2019 | 3949     | 3500            | Body | 3.448              | 50.786                 | PASS          | PASS            | PASS           | TDD             | PASS        | N/A  |
| AM3        | 3700        | 12/11/2019 | 3949     | 3700            | Body | 3.67               | 50.471                 | PASS          | PASS            | PASS           | TDD             | PASS        | N/A  |
| AM5        | 5250        | 8/27/2019  | 7491     | 5250            | Body | 5.352              | 47.481                 | PASS          | PASS            | PASS           | OFDM            | N/A         | PASS |
| AM5        | 5600        | 8/14/2019  | 7491     | 5600            | Body | 5.897              | 46.808                 | PASS          | PASS            | PASS           | OFDM            | N/A         | PASS |
| AM5        | 5750        | 8/14/2019  | 7491     | 5750            | Body | 6.122              | 46.512                 | PASS          | PASS            | PASS           | OFDM            | N/A         | PASS |

NOTE: While the probes have been calibrated for both CW and modulated signals, all measurements were performed using communication systems calibrated for CW signals only. Modulations in the table above represent test configurations for which the measurement system has been validated per FCC KDB Publication 865664 D01v01r04 for scenarios when CW probe calibrations are used with other signal types. SAR systems were validated for modulated signals with a periodic duty cycle, such as GMSK, or with a high peak to average ratio (>5 dB), such as OFDM according to FCC KDB Publication 865664 D01v01r04.

|                                        |                                                                                     |                       |                                 |
|----------------------------------------|-------------------------------------------------------------------------------------|-----------------------|---------------------------------|
| FCC ID: BCGA2069                       |  | SAR EVALUATION REPORT | Approved by:<br>Quality Manager |
| Test Dates:<br>12/18/2019 – 01/28/2020 | DUT Type:<br>Tablet Device                                                          |                       | APPENDIX D:<br>Page 2 of 2      |

# APPENDIX F: DOWNLINK LTE CA RF CONDUCTED POWERS

## 1.1 LTE Downlink Only Carrier Aggregation Test Reduction Methodology

SAR test exclusion for LTE downlink Carrier Aggregation is determined by power measurements according to the number of component carriers (CCs) supported by the product implementation. Per April 2018 TCBC Workshop Notes, the following test reduction methodology was applied to determine the combinations required for conducted power measurements.

### LTE DLCA Test Reduction Methodology:

- The supported combinations were arranged by the number of component carriers in columns.
- Any limitations on the PCC or SCC for each combination were identified alongside the combination (e.g. CA\_2A-2A-4A-12A, but B12 can only be configured as a SCC).
- Power measurements were performed for "supersets" (LTE CA combinations with multiple components carriers) and any "subsets" (LTE CA combinations with fewer component carriers) that were not completely covered by the supersets.
- Only subsets that have the exact same components as a superset were excluded for measurement.
- When there were certain restrictions on component carriers that existed in the superset that were not applied for the subset, the subset configuration was additionally evaluated.
- Both inter-band and intra-band downlink carrier aggregation scenarios were considered.
- Downlink CA combinations for SISO and 4x4 Downlink MIMO operations were measured independently, per May 2017 TCBC Workshop notes.
- The antenna with highest maximum output power for each LTE Band was selected for the PCC configurations of DLCA power measurements.

Table 1 – Example of Exclusion Table for SISO Configurations

| Index   | ACC                                                                                                                                                         | Supported Channel Bandwidth (MHz) | Restriction   | Completely Covered by Measurement Superset |
|---------|-------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------|---------------|--------------------------------------------|
| 222-41  | CA 2A                                                                                                                                                       | 5, 10, 15, 20                     | 5, 10, 15, 20 | Yes                                        |
| 222-42  | CA 2A-2A                                                                                                                                                    | 5, 10, 15, 20                     | 5, 10, 15, 20 | Yes                                        |
| 222-43  | CA 2A-2A-2A                                                                                                                                                 | 5, 10, 15, 20                     | 5, 10, 15, 20 | Yes                                        |
| 222-44  | CA 2A-2A-2A-2A                                                                                                                                              | 5, 10, 15, 20                     | 5, 10, 15, 20 | Yes                                        |
| 222-45  | CA 2A-2A-2A-2A-2A                                                                                                                                           | 5, 10, 15, 20                     | 5, 10, 15, 20 | Yes                                        |
| 222-46  | CA 2A-2A-2A-2A-2A-2A                                                                                                                                        | 5, 10, 15, 20                     | 5, 10, 15, 20 | Yes                                        |
| 222-47  | CA 2A-2A-2A-2A-2A-2A-2A                                                                                                                                     | 5, 10, 15, 20                     | 5, 10, 15, 20 | Yes                                        |
| 222-48  | CA 2A-2A-2A-2A-2A-2A-2A-2A                                                                                                                                  | 5, 10, 15, 20                     | 5, 10, 15, 20 | Yes                                        |
| 222-49  | CA 2A-2A-2A-2A-2A-2A-2A-2A-2A                                                                                                                               | 5, 10, 15, 20                     | 5, 10, 15, 20 | Yes                                        |
| 222-50  | CA 2A-2A-2A-2A-2A-2A-2A-2A-2A-2A                                                                                                                            | 5, 10, 15, 20                     | 5, 10, 15, 20 | Yes                                        |
| 222-51  | CA 2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A                                                                                                                         | 5, 10, 15, 20                     | 5, 10, 15, 20 | Yes                                        |
| 222-52  | CA 2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A                                                                                                                      | 5, 10, 15, 20                     | 5, 10, 15, 20 | Yes                                        |
| 222-53  | CA 2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A                                                                                                                   | 5, 10, 15, 20                     | 5, 10, 15, 20 | Yes                                        |
| 222-54  | CA 2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A                                                                                                                | 5, 10, 15, 20                     | 5, 10, 15, 20 | Yes                                        |
| 222-55  | CA 2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A                                                                                                             | 5, 10, 15, 20                     | 5, 10, 15, 20 | Yes                                        |
| 222-56  | CA 2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A                                                                                                          | 5, 10, 15, 20                     | 5, 10, 15, 20 | Yes                                        |
| 222-57  | CA 2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A                                                                                                       | 5, 10, 15, 20                     | 5, 10, 15, 20 | Yes                                        |
| 222-58  | CA 2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A                                                                                                    | 5, 10, 15, 20                     | 5, 10, 15, 20 | Yes                                        |
| 222-59  | CA 2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A                                                                                                 | 5, 10, 15, 20                     | 5, 10, 15, 20 | Yes                                        |
| 222-60  | CA 2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A                                                                                              | 5, 10, 15, 20                     | 5, 10, 15, 20 | Yes                                        |
| 222-61  | CA 2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A                                                                                           | 5, 10, 15, 20                     | 5, 10, 15, 20 | Yes                                        |
| 222-62  | CA 2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A                                                                                        | 5, 10, 15, 20                     | 5, 10, 15, 20 | Yes                                        |
| 222-63  | CA 2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A                                                                                     | 5, 10, 15, 20                     | 5, 10, 15, 20 | Yes                                        |
| 222-64  | CA 2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A                                                                                  | 5, 10, 15, 20                     | 5, 10, 15, 20 | Yes                                        |
| 222-65  | CA 2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A                                                                               | 5, 10, 15, 20                     | 5, 10, 15, 20 | Yes                                        |
| 222-66  | CA 2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A                                                                            | 5, 10, 15, 20                     | 5, 10, 15, 20 | Yes                                        |
| 222-67  | CA 2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A                                                                         | 5, 10, 15, 20                     | 5, 10, 15, 20 | Yes                                        |
| 222-68  | CA 2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A                                                                      | 5, 10, 15, 20                     | 5, 10, 15, 20 | Yes                                        |
| 222-69  | CA 2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A                                                                   | 5, 10, 15, 20                     | 5, 10, 15, 20 | Yes                                        |
| 222-70  | CA 2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A                                                                | 5, 10, 15, 20                     | 5, 10, 15, 20 | Yes                                        |
| 222-71  | CA 2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A                                                             | 5, 10, 15, 20                     | 5, 10, 15, 20 | Yes                                        |
| 222-72  | CA 2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A                                                          | 5, 10, 15, 20                     | 5, 10, 15, 20 | Yes                                        |
| 222-73  | CA 2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A                                                       | 5, 10, 15, 20                     | 5, 10, 15, 20 | Yes                                        |
| 222-74  | CA 2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A                                                    | 5, 10, 15, 20                     | 5, 10, 15, 20 | Yes                                        |
| 222-75  | CA 2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A                                                 | 5, 10, 15, 20                     | 5, 10, 15, 20 | Yes                                        |
| 222-76  | CA 2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A                                              | 5, 10, 15, 20                     | 5, 10, 15, 20 | Yes                                        |
| 222-77  | CA 2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A                                           | 5, 10, 15, 20                     | 5, 10, 15, 20 | Yes                                        |
| 222-78  | CA 2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A                                        | 5, 10, 15, 20                     | 5, 10, 15, 20 | Yes                                        |
| 222-79  | CA 2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A                                     | 5, 10, 15, 20                     | 5, 10, 15, 20 | Yes                                        |
| 222-80  | CA 2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A                                  | 5, 10, 15, 20                     | 5, 10, 15, 20 | Yes                                        |
| 222-81  | CA 2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A                               | 5, 10, 15, 20                     | 5, 10, 15, 20 | Yes                                        |
| 222-82  | CA 2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A                            | 5, 10, 15, 20                     | 5, 10, 15, 20 | Yes                                        |
| 222-83  | CA 2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A                         | 5, 10, 15, 20                     | 5, 10, 15, 20 | Yes                                        |
| 222-84  | CA 2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A                      | 5, 10, 15, 20                     | 5, 10, 15, 20 | Yes                                        |
| 222-85  | CA 2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A                   | 5, 10, 15, 20                     | 5, 10, 15, 20 | Yes                                        |
| 222-86  | CA 2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A                | 5, 10, 15, 20                     | 5, 10, 15, 20 | Yes                                        |
| 222-87  | CA 2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A             | 5, 10, 15, 20                     | 5, 10, 15, 20 | Yes                                        |
| 222-88  | CA 2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A          | 5, 10, 15, 20                     | 5, 10, 15, 20 | Yes                                        |
| 222-89  | CA 2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A       | 5, 10, 15, 20                     | 5, 10, 15, 20 | Yes                                        |
| 222-90  | CA 2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A    | 5, 10, 15, 20                     | 5, 10, 15, 20 | Yes                                        |
| 222-91  | CA 2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A | 5, 10, 15, 20                     | 5, 10, 15, 20 | Yes                                        |
| 222-92  | CA 2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A    | 5, 10, 15, 20                     | 5, 10, 15, 20 | Yes                                        |
| 222-93  | CA 2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A | 5, 10, 15, 20                     | 5, 10, 15, 20 | Yes                                        |
| 222-94  | CA 2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A | 5, 10, 15, 20                     | 5, 10, 15, 20 | Yes                                        |
| 222-95  | CA 2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A | 5, 10, 15, 20                     | 5, 10, 15, 20 | Yes                                        |
| 222-96  | CA 2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A    | 5, 10, 15, 20                     | 5, 10, 15, 20 | Yes                                        |
| 222-97  | CA 2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A    | 5, 10, 15, 20                     | 5, 10, 15, 20 | Yes                                        |
| 222-98  | CA 2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A    | 5, 10, 15, 20                     | 5, 10, 15, 20 | Yes                                        |
| 222-99  | CA 2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A    | 5, 10, 15, 20                     | 5, 10, 15, 20 | Yes                                        |
| 222-100 | CA 2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A    | 5, 10, 15, 20                     | 5, 10, 15, 20 | Yes                                        |

Table 2 – Example of Exclusion Table for 4x4 Downlink MIMO Configurations

| Index    | ACC                                                                     | Supported Channel Bandwidth (MHz) |               |     |     | Restriction | Completely Covered by Measurement Superset                                                                              | Index    | ACC                                                                                                                  | Supported Channel Bandwidth (MHz) |               |               |     | Restriction | Completely Covered by Measurement Superset |
|----------|-------------------------------------------------------------------------|-----------------------------------|---------------|-----|-----|-------------|-------------------------------------------------------------------------------------------------------------------------|----------|----------------------------------------------------------------------------------------------------------------------|-----------------------------------|---------------|---------------|-----|-------------|--------------------------------------------|
|          |                                                                         | CC1                               | CC2           | CC3 | CC4 |             |                                                                                                                         |          |                                                                                                                      | CC1                               | CC2           | CC3           | CC4 |             |                                            |
| ACC-0001 | CA 2A                                                                   | 5, 10, 15, 20                     | 5, 10, 15, 20 |     |     | ACC-0005    |                                                                                                                         | ACC-0001 | CA 2A-2A-2A                                                                                                          | 5, 10, 15, 20                     | 5, 10, 15, 20 | 5, 10, 15, 20 |     | No          |                                            |
| ACC-0002 | CA 2A-2A                                                                | 5, 10, 15, 20                     | 5, 10, 15, 20 |     |     | ACC-0006    | CA 2A-2A-2A                                                                                                             | ACC-0002 | CA 2A-2A-2A                                                                                                          | 5, 10, 15, 20                     | 5, 10, 15, 20 | 5, 10, 15, 20 |     | No          |                                            |
| ACC-0003 | CA 2A-2A-2A                                                             | 5, 10, 15, 20                     | 5, 10, 15, 20 |     |     | ACC-0007    | CA 2A-2A-2A-2A                                                                                                          | ACC-0003 | CA 2A-2A-2A-2A                                                                                                       | 5, 10, 15, 20                     | 5, 10, 15, 20 | 5, 10, 15, 20 |     | No          |                                            |
| ACC-0004 | CA 2A-2A-2A-2A                                                          | 5, 10, 15, 20                     | 5, 10, 15, 20 |     |     | ACC-0008    | CA 2A-2A-2A-2A-2A                                                                                                       | ACC-0004 | CA 2A-2A-2A-2A-2A                                                                                                    | 5, 10, 15, 20                     | 5, 10, 15, 20 | 5, 10, 15, 20 |     | No          |                                            |
| ACC-0005 | CA 2A-2A-2A-2A-2A                                                       | 5, 10, 15, 20                     | 5, 10, 15, 20 |     |     | ACC-0009    | CA 2A-2A-2A-2A-2A-2A                                                                                                    | ACC-0005 | CA 2A-2A-2A-2A-2A-2A                                                                                                 | 5, 10, 15, 20                     | 5, 10, 15, 20 | 5, 10, 15, 20 |     | No          |                                            |
| ACC-0006 | CA 2A-2A-2A-2A-2A-2A                                                    | 5, 10, 15, 20                     | 5, 10, 15, 20 |     |     | ACC-0010    | CA 2A-2A-2A-2A-2A-2A-2A                                                                                                 | ACC-0006 | CA 2A-2A-2A-2A-2A-2A-2A                                                                                              | 5, 10, 15, 20                     | 5, 10, 15, 20 | 5, 10, 15, 20 |     | No          |                                            |
| ACC-0007 | CA 2A-2A-2A-2A-2A-2A-2A                                                 | 5, 10, 15, 20                     | 5, 10, 15, 20 |     |     | ACC-0011    | CA 2A-2A-2A-2A-2A-2A-2A-2A                                                                                              | ACC-0007 | CA 2A-2A-2A-2A-2A-2A-2A-2A                                                                                           | 5, 10, 15, 20                     | 5, 10, 15, 20 | 5, 10, 15, 20 |     | No          |                                            |
| ACC-0008 | CA 2A-2A-2A-2A-2A-2A-2A-2A                                              | 5, 10, 15, 20                     | 5, 10, 15, 20 |     |     | ACC-0012    | CA 2A-2A-2A-2A-2A-2A-2A-2A-2A                                                                                           | ACC-0008 | CA 2A-2A-2A-2A-2A-2A-2A-2A-2A                                                                                        | 5, 10, 15, 20                     | 5, 10, 15, 20 | 5, 10, 15, 20 |     | No          |                                            |
| ACC-0009 | CA 2A-2A-2A-2A-2A-2A-2A-2A-2A                                           | 5, 10, 15, 20                     | 5, 10, 15, 20 |     |     | ACC-0013    | CA 2A-2A-2A-2A-2A-2A-2A-2A-2A-2A                                                                                        | ACC-0009 | CA 2A-2A-2A-2A-2A-2A-2A-2A-2A-2A                                                                                     | 5, 10, 15, 20                     | 5, 10, 15, 20 | 5, 10, 15, 20 |     | No          |                                            |
| ACC-0010 | CA 2A-2A-2A-2A-2A-2A-2A-2A-2A-2A                                        | 5, 10, 15, 20                     | 5, 10, 15, 20 |     |     | ACC-0014    | CA 2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A                                                                                     | ACC-0010 | CA 2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A                                                                                  | 5, 10, 15, 20                     | 5, 10, 15, 20 | 5, 10, 15, 20 |     | No          |                                            |
| ACC-0011 | CA 2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A                                     | 5, 10, 15, 20                     | 5, 10, 15, 20 |     |     | ACC-0015    | CA 2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A                                                                                  | ACC-0011 | CA 2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A                                                                               | 5, 10, 15, 20                     | 5, 10, 15, 20 | 5, 10, 15, 20 |     | No          |                                            |
| ACC-0012 | CA 2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A                                  | 5, 10, 15, 20                     | 5, 10, 15, 20 |     |     | ACC-0016    | CA 2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A                                                                               | ACC-0012 | CA 2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A                                                                            | 5, 10, 15, 20                     | 5, 10, 15, 20 | 5, 10, 15, 20 |     | No          |                                            |
| ACC-0013 | CA 2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A                               | 5, 10, 15, 20                     | 5, 10, 15, 20 |     |     | ACC-0017    | CA 2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A                                                                            | ACC-0013 | CA 2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A                                                                         | 5, 10, 15, 20                     | 5, 10, 15, 20 | 5, 10, 15, 20 |     | No          |                                            |
| ACC-0014 | CA 2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A                            | 5, 10, 15, 20                     | 5, 10, 15, 20 |     |     | ACC-0018    | CA 2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A                                                                         | ACC-0014 | CA 2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A                                                                      | 5, 10, 15, 20                     | 5, 10, 15, 20 | 5, 10, 15, 20 |     | No          |                                            |
| ACC-0015 | CA 2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A                         | 5, 10, 15, 20                     | 5, 10, 15, 20 |     |     | ACC-0019    | CA 2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A                                                                      | ACC-0015 | CA 2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A                                                                   | 5, 10, 15, 20                     | 5, 10, 15, 20 | 5, 10, 15, 20 |     | No          |                                            |
| ACC-0016 | CA 2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A                      | 5, 10, 15, 20                     | 5, 10, 15, 20 |     |     | ACC-0020    | CA 2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A                                                                   | ACC-0016 | CA 2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A                                                                | 5, 10, 15, 20                     | 5, 10, 15, 20 | 5, 10, 15, 20 |     | No          |                                            |
| ACC-0017 | CA 2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A                   | 5, 10, 15, 20                     | 5, 10, 15, 20 |     |     | ACC-0021    | CA 2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A                                                                | ACC-0017 | CA 2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A                                                             | 5, 10, 15, 20                     | 5, 10, 15, 20 | 5, 10, 15, 20 |     | No          |                                            |
| ACC-0018 | CA 2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A                | 5, 10, 15, 20                     | 5, 10, 15, 20 |     |     | ACC-0022    | CA 2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A                                                             | ACC-0018 | CA 2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A                                                          | 5, 10, 15, 20                     | 5, 10, 15, 20 | 5, 10, 15, 20 |     | No          |                                            |
| ACC-0019 | CA 2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A             | 5, 10, 15, 20                     | 5, 10, 15, 20 |     |     | ACC-0023    | CA 2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A                                                          | ACC-0019 | CA 2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A                                                       | 5, 10, 15, 20                     | 5, 10, 15, 20 | 5, 10, 15, 20 |     | No          |                                            |
| ACC-0020 | CA 2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A          | 5, 10, 15, 20                     | 5, 10, 15, 20 |     |     | ACC-0024    | CA 2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A                                                       | ACC-0020 | CA 2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A                                                    | 5, 10, 15, 20                     | 5, 10, 15, 20 | 5, 10, 15, 20 |     | No          |                                            |
| ACC-0021 | CA 2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A       | 5, 10, 15, 20                     | 5, 10, 15, 20 |     |     | ACC-0025    | CA 2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A                                                    | ACC-0021 | CA 2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A                                                 | 5, 10, 15, 20                     | 5, 10, 15, 20 | 5, 10, 15, 20 |     | No          |                                            |
| ACC-0022 | CA 2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A    | 5, 10, 15, 20                     | 5, 10, 15, 20 |     |     | ACC-0026    | CA 2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A                                                 | ACC-0022 | CA 2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A                                              | 5, 10, 15, 20                     | 5, 10, 15, 20 | 5, 10, 15, 20 |     | No          |                                            |
| ACC-0023 | CA 2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A | 5, 10, 15, 20                     | 5, 10, 15, 20 |     |     | ACC-0027    | CA 2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A                                              | ACC-0023 | CA 2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A                                           | 5, 10, 15, 20                     | 5, 10, 15, 20 | 5, 10, 15, 20 |     | No          |                                            |
|          |                                                                         |                                   |               |     |     | ACC-0028    | CA 2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A                                           | ACC-0024 | CA 2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A                                        | 5, 10, 15, 20                     | 5, 10, 15, 20 | 5, 10, 15, 20 |     | No          |                                            |
|          |                                                                         |                                   |               |     |     | ACC-0029    | CA 2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A                                        | ACC-0025 | CA 2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A                                     | 5, 10, 15, 20                     | 5, 10, 15, 20 | 5, 10, 15, 20 |     | No          |                                            |
|          |                                                                         |                                   |               |     |     | ACC-0030    | CA 2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A                                     | ACC-0026 | CA 2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A                                  | 5, 10, 15, 20                     | 5, 10, 15, 20 | 5, 10, 15, 20 |     | No          |                                            |
|          |                                                                         |                                   |               |     |     | ACC-0031    | CA 2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A                                  | ACC-0027 | CA 2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A                               | 5, 10, 15, 20                     | 5, 10, 15, 20 | 5, 10, 15, 20 |     | No          |                                            |
|          |                                                                         |                                   |               |     |     | ACC-0032    | CA 2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A                               | ACC-0028 | CA 2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A                            | 5, 10, 15, 20                     | 5, 10, 15, 20 | 5, 10, 15, 20 |     | No          |                                            |
|          |                                                                         |                                   |               |     |     | ACC-0033    | CA 2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A                            | ACC-0029 | CA 2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A                         | 5, 10, 15, 20                     | 5, 10, 15, 20 | 5, 10, 15, 20 |     | No          |                                            |
|          |                                                                         |                                   |               |     |     | ACC-0034    | CA 2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A                         | ACC-0030 | CA 2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A                   | 5, 10, 15, 20                     | 5, 10, 15, 20 | 5, 10, 15, 20 |     | No          |                                            |
|          |                                                                         |                                   |               |     |     | ACC-0035    | CA 2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A                      | ACC-0031 | CA 2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A                | 5, 10, 15, 20                     | 5, 10, 15, 20 | 5, 10, 15, 20 |     | No          |                                            |
|          |                                                                         |                                   |               |     |     | ACC-0036    | CA 2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A                | ACC-0032 | CA 2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A          | 5, 10, 15, 20                     | 5, 10, 15, 20 | 5, 10, 15, 20 |     | No          |                                            |
|          |                                                                         |                                   |               |     |     | ACC-0037    | CA 2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A             | ACC-0033 | CA 2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A             | 5, 10, 15, 20                     | 5, 10, 15, 20 | 5, 10, 15, 20 |     | No          |                                            |
|          |                                                                         |                                   |               |     |     | ACC-0038    | CA 2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A          | ACC-0034 | CA 2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A          | 5, 10, 15, 20                     | 5, 10, 15, 20 | 5, 10, 15, 20 |     | No          |                                            |
|          |                                                                         |                                   |               |     |     | ACC-0039    | CA 2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A       | ACC-0035 | CA 2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A       | 5, 10, 15, 20                     | 5, 10, 15, 20 | 5, 10, 15, 20 |     | No          |                                            |
|          |                                                                         |                                   |               |     |     | ACC-0040    | CA 2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A    | ACC-0036 | CA 2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A    | 5, 10, 15, 20                     | 5, 10, 15, 20 | 5, 10, 15, 20 |     | No          |                                            |
|          |                                                                         |                                   |               |     |     | ACC-0041    | CA 2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A | ACC-0037 | CA 2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A    | 5, 10, 15, 20                     | 5, 10, 15, 20 | 5, 10, 15, 20 |     | No          |                                            |
|          |                                                                         |                                   |               |     |     | ACC-0042    | CA 2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A | ACC-0038 | CA 2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A | 5, 10, 15, 20                     | 5, 10, 15, 20 | 5, 10, 15, 20 |     | No          |                                            |
|          |                                                                         |                                   |               |     |     | ACC-0043    | CA 2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A | ACC-0039 | CA 2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A | 5, 10, 15, 20                     | 5, 10, 15, 20 | 5, 10, 15, 20 |     | No          |                                            |
|          |                                                                         |                                   |               |     |     | ACC-0044    | CA 2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A | ACC-0040 | CA 2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A | 5, 10, 15, 20                     | 5, 10, 15, 20 | 5, 10, 15, 20 |     | No          |                                            |
|          |                                                                         |                                   |               |     |     | ACC-0045    | CA 2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A | ACC-0041 | CA 2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A-2A | 5, 10, 15, 20                     | 5, 10, 15, 20 | 5, 10, 15, 20 |     | No          |                                            |
|          |                                                                         |                                   |               |     |     |             |                                                                                                                         |          |                                                                                                                      |                                   |               |               |     |             |                                            |

## 1.2 LTE Downlink Only Carrier Aggregation Test Selection and Setup

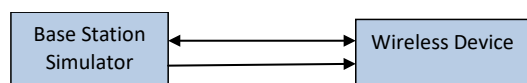
SAR test exclusion for LTE downlink Carrier Aggregation is determined by power measurements according to the number component carriers (CCs) supported by the product implementation. For those configurations required by April 2018 TCBC Workshop Notes, conducted power measurements with LTE Carrier Aggregation (CA) (downlink only) active are made in accordance to KDB Publication 941225 D05Av01r02. The RRC connection is only handled by one cell, the primary component carrier (PCC) for downlink and uplink communications. After making a data connection to the PCC, the UE device adds secondary component carrier(s) (SCC) on the downlink only. All uplink communications and acknowledgements remain identical to specifications when downlink carrier aggregation is inactive on the PCC. Additional conducted output powers are measured with the downlink carrier aggregation active for the configuration with highest measured maximum conducted power with downlink carrier aggregation inactive measured among the channel bandwidth, modulation, and RB combinations in each frequency band.

This device supports LAA with downlink carrier aggregation only. It uses carrier aggregation in the downlink to combine LTE in the unlicensed spectrum (i.e. LTE Band 46) with LTE in the licensed band (served as PCC). All uplink communications and acknowledgements on the PCC remain identical to specifications when downlink carrier aggregation is inactive.

Per FCC KDB Publication 941225 D05Av01r02, no SAR measurements are required for carrier aggregation configurations when the maximum average output power with downlink only carrier aggregation active is not more than 0.25 dB higher than the average output power with downlink only carrier aggregation inactive. All bands required for SAR testing per FCC KDB procedures were considered. Based on the measured maximum powers below, no additional SAR tests were required for DLCA SAR configurations.

General PCC and SCC configuration selection procedure

- PCC uplink channel, channel bandwidth, modulation and RB configurations were selected based on section C)3)b)ii) of KDB 941225 D05 V01r02. The downlink PCC channel was paired with the selected PCC uplink channel according to normal configurations without carrier aggregation.
- To maximize aggregated bandwidth, highest channel bandwidth available for that CA combination was selected for SCC. For inter-band CA, the SCC downlink channels were selected near the middle of their transmission bands. For contiguous intra-band CA, the downlink channel spacing between the component carriers was set to multiple of 300 kHz less than the nominal channel spacing defined in section 5.4.1A of 3GPP TS 36.521. For non-contiguous intra-band CA, the downlink channel spacing between the component carriers was set to be larger than the nominal channel spacing and provided maximum separation between the component carriers.
- All selected PCC and SCC(s) remained fully within the uplink/downlink transmission band of the respective component carrier.



**Figure 1**  
**DL CA Power Measurement Setup**

|                                            |                                                                                                                  |                                        |
|--------------------------------------------|------------------------------------------------------------------------------------------------------------------|----------------------------------------|
| FCC ID: BCGA2069                           |  <b>SAR EVALUATION REPORT</b> | <b>Reviewed by:</b><br>Quality Manager |
| <b>Test Dates:</b><br>12/18/2019-1/28/2020 | <b>DUT Type:</b><br>Tablet Device                                                                                | <b>APPENDIX F:</b><br>Page 2 of 16     |

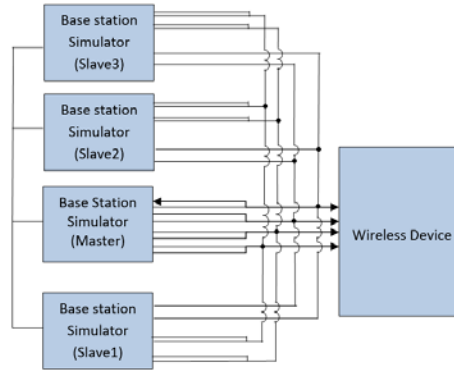


Figure 2  
DL CA with DL 4x4 MIMO Power Measurement Setup

## 1.3 Downlink Carrier Aggregation RF Conducted Powers

### 1.3.1 LTE Band 71 as PCC

Table 1  
Output Powers – Ant 3

| Combination       | PCC      |              |              |                      |      |           |                  |                  | SCC 1                |          |              |                  | SCC 2                |          |              |                  | SCC 3                |          |              |                  | Power                |                                       |                                   |
|-------------------|----------|--------------|--------------|----------------------|------|-----------|------------------|------------------|----------------------|----------|--------------|------------------|----------------------|----------|--------------|------------------|----------------------|----------|--------------|------------------|----------------------|---------------------------------------|-----------------------------------|
|                   | PCC Band | PCC BW [MHz] | PCC (UL) Ch. | PCC (UL) Freq. [MHz] | Mod. | PCC UL RB | PCC UL RB Offset | PCC (DL) Channel | PCC (DL) Freq. [MHz] | SCC Band | SCC BW [MHz] | SCC (DL) Channel | SCC (DL) Freq. [MHz] | SCC Band | SCC BW [MHz] | SCC (DL) Channel | SCC (DL) Freq. [MHz] | SCC Band | SCC BW [MHz] | SCC (DL) Channel | SCC (DL) Freq. [MHz] | LTE Tx Power with DL CA Enabled (dBm) | LTE Single Carrier Tx Power (dBm) |
| CA 4A-4A-71A      | LTE B71  | 20           | 133297       | 680.5                | QPSK | 1         | 0                | 68761            | 634.5                | LTE B4   | 20           | 2175             | 2132.5               | LTE B4   | 10           | 2350             | 2150                 | -        | -            | -                | -                    | 23.00                                 | 23.00                             |
| CA 2A-4A-71A      | LTE B71  | 20           | 133297       | 680.5                | QPSK | 1         | 0                | 68761            | 634.5                | LTE B2   | 20           | 900              | 1560                 | LTE B4   | 20           | 2175             | 2132.5               | -        | -            | -                | -                    | 22.99                                 | 23.00                             |
| CA 2A-2A-66A-71A  | LTE B71  | 20           | 133297       | 680.5                | QPSK | 1         | 0                | 68761            | 634.5                | LTE B2   | 20           | 900              | 1560                 | LTE B2   | 20           | 700              | 1940                 | LTE B66  | 20           | 66765            | 2145                 | 23.00                                 | 23.00                             |
| CA 2A-66A-66A-71A | LTE B71  | 20           | 133297       | 680.5                | QPSK | 1         | 0                | 68761            | 634.5                | LTE B2   | 20           | 900              | 1560                 | LTE B66  | 20           | 66765            | 2145                 | LTE B66  | 20           | 66765            | 2150                 | 23.00                                 | 23.00                             |
| CA 2A-66C-71A     | LTE B71  | 20           | 133297       | 680.5                | QPSK | 1         | 0                | 68761            | 634.5                | LTE B2   | 20           | 900              | 1560                 | LTE B66  | 20           | 66765            | 2145                 | LTE B66  | 20           | 66964            | 2164.8               | 22.99                                 | 23.00                             |

|                                     |                                                                                                                                                                                                              |                       |                                 |
|-------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------|---------------------------------|
| FCC ID: BCGA2069                    |  <b>PCTEST</b><br>Proud to be part of  | SAR EVALUATION REPORT | Reviewed by:<br>Quality Manager |
| Test Dates:<br>12/18/2019-1/28/2020 | DUT Type:<br>Tablet Device                                                                                                                                                                                   |                       | APPENDIX F:<br>Page 3 of 16     |

## 1.3.2

## LTE Band 12 as PCC

Table 2  
Output Powers – Ant 3

| Combination           | PCC Band | PCC BW [MHz] | PCC   |           |                  |                      | PCC UL RB | PCC UL RB Offset | PCC (DL) Freq. [MHz] | SCC Band | SCC BW [MHz] | SCC (DL) Channel | SCC (DL) Freq. [MHz] | SCC Band | SCC BW [MHz] | SCC (DL) Channel | SCC (DL) Freq. [MHz] | SCC Band | SCC BW [MHz] | SCC (DL) Channel | SCC (DL) Freq. [MHz] | SCC Band | SCC BW [MHz] | SCC (DL) Channel | SCC (DL) Freq. [MHz] | LTE Tx Power with DL CA Enabled [dBm] | LTE Single Carrier Tx Power [dBm] |
|-----------------------|----------|--------------|-------|-----------|------------------|----------------------|-----------|------------------|----------------------|----------|--------------|------------------|----------------------|----------|--------------|------------------|----------------------|----------|--------------|------------------|----------------------|----------|--------------|------------------|----------------------|---------------------------------------|-----------------------------------|
|                       |          |              | Mod.  | PCC UL RB | PCC UL RB Offset | PCC (DL) Freq. [MHz] |           |                  |                      |          |              |                  |                      |          |              |                  |                      |          |              |                  |                      |          |              |                  |                      |                                       |                                   |
| CA 2A-12A (1)         | LTE B12  | 5            | 23155 | 713.5     | 64QAM            | 1                    | 24        | 5155             | 743.5                | LTE B2   | 20           | 900              | 1960                 | LTE B2   | 20           | 2175             | 2132.5               | -        | -            | -                | -                    | -        | -            | -                | -                    | 21.71                                 | 21.77                             |
| CA 4A-12A (1)         | LTE B12  | 5            | 23155 | 713.5     | 64QAM            | 1                    | 24        | 5155             | 743.5                | LTE B4   | 20           | 2175             | 2132.5               | -        | -            | -                | -                    | -        | -            | -                | -                    | -        | -            | -                | -                    | 21.71                                 | 21.77                             |
| CA 4A-12A (2)         | LTE B12  | 5            | 23155 | 713.5     | 64QAM            | 1                    | 24        | 5155             | 743.5                | LTE B4   | 20           | 2175             | 2132.5               | -        | -            | -                | -                    | -        | -            | -                | -                    | -        | -            | -                | -                    | 21.71                                 | 21.77                             |
| CA 12A-25A            | LTE B12  | 5            | 23155 | 713.5     | 64QAM            | 1                    | 24        | 5155             | 743.5                | LTE B25  | 20           | 8305             | 1962.5               | -        | -            | -                | -                    | -        | -            | -                | -                    | -        | -            | -                | -                    | 21.73                                 | 21.77                             |
| CA 12A-66A            | LTE B12  | 5            | 23155 | 713.5     | 64QAM            | 1                    | 24        | 5155             | 743.5                | LTE B66  | 20           | 50655            | 5537.5               | -        | -            | -                | -                    | -        | -            | -                | -                    | -        | -            | -                | -                    | 21.77                                 | 21.77                             |
| CA 13A-66A (1)        | LTE B12  | 5            | 23155 | 713.5     | 64QAM            | 1                    | 24        | 5155             | 743.5                | LTE B66  | 20           | 66786            | 2145                 | -        | -            | -                | -                    | -        | -            | -                | -                    | -        | -            | -                | -                    | 21.70                                 | 21.77                             |
| CA 13A-66A (2)        | LTE B12  | 5            | 23155 | 713.5     | 64QAM            | 1                    | 24        | 5155             | 743.5                | LTE B66  | 20           | 66786            | 2145                 | -        | -            | -                | -                    | -        | -            | -                | -                    | -        | -            | -                | -                    | 21.70                                 | 21.77                             |
| CA 2C-12A             | LTE B12  | 5            | 23155 | 713.5     | 64QAM            | 1                    | 24        | 5155             | 743.5                | LTE B2   | 20           | 900              | 1960                 | LTE B2   | 20           | 702              | 1940.2               | -        | -            | -                | -                    | -        | -            | -                | -                    | 21.61                                 | 21.77                             |
| CA 2A-2A-12B          | LTE B12  | 5            | 23155 | 713.5     | 64QAM            | 1                    | 24        | 5155             | 743.5                | LTE B12  | 10           | 5083             | 736.3                | LTE B2   | 20           | 900              | 1960                 | LTE B2   | 20           | 700              | 1940                 | -        | -            | -                | -                    | 21.58                                 | 21.77                             |
| CA 4A-4A-12B          | LTE B12  | 5            | 23155 | 713.5     | 64QAM            | 1                    | 24        | 5155             | 743.5                | LTE B12  | 10           | 5083             | 736.3                | LTE B4   | 20           | 2175             | 2132.5               | LTE B4   | 10           | 2360             | 2140                 | -        | -            | -                | -                    | 21.54                                 | 21.77                             |
| CA 2A-2A-12A          | LTE B12  | 5            | 23155 | 713.5     | 64QAM            | 1                    | 24        | 5155             | 743.5                | LTE B2   | 20           | 900              | 1960                 | LTE B2   | 20           | 700              | 1940                 | LTE B4   | 20           | 2175             | 2132.5               | -        | -            | -                | -                    | 21.50                                 | 21.77                             |
| CA 2A-4A-12A          | LTE B12  | 5            | 23155 | 713.5     | 64QAM            | 1                    | 24        | 5155             | 743.5                | LTE B2   | 20           | 900              | 1960                 | LTE B4   | 20           | 2175             | 2132.5               | LTE B4   | 10           | 2360             | 2140                 | -        | -            | -                | -                    | 21.50                                 | 21.77                             |
| CA 2A-4A-12B          | LTE B12  | 5            | 23155 | 713.5     | 64QAM            | 1                    | 24        | 5155             | 743.5                | LTE B12  | 10           | 5083             | 736.3                | LTE B2   | 20           | 900              | 1960                 | LTE B4   | 20           | 2175             | 2132.5               | -        | -            | -                | -                    | 21.53                                 | 21.77                             |
| CA 2A-13A-66C         | LTE B12  | 5            | 23155 | 713.5     | 64QAM            | 1                    | 24        | 5155             | 743.5                | LTE B66  | 20           | 900              | 1960                 | LTE B66  | 20           | 66786            | 2145                 | LTE B66  | 20           | 66894            | 2144.8               | -        | -            | -                | -                    | 21.57                                 | 21.77                             |
| CA 4A-4A-12A-30A      | LTE B12  | 5            | 23155 | 713.5     | 64QAM            | 1                    | 24        | 5155             | 743.5                | LTE B4   | 20           | 2175             | 2132.5               | LTE B4   | 20           | 2360             | 2150                 | LTE B30  | 10           | 8620             | 2355                 | -        | -            | -                | -                    | 21.68                                 | 21.77                             |
| CA 2A-4A-7A-12A       | LTE B12  | 5            | 23155 | 713.5     | 64QAM            | 1                    | 24        | 5155             | 743.5                | LTE B2   | 20           | 900              | 1960                 | LTE B4   | 20           | 2175             | 2132.5               | LTE B7   | 20           | 3100             | 2695                 | -        | -            | -                | -                    | 21.58                                 | 21.77                             |
| CA 2A-4A-12A-30A      | LTE B12  | 5            | 23155 | 713.5     | 64QAM            | 1                    | 24        | 5155             | 743.5                | LTE B2   | 20           | 900              | 1960                 | LTE B4   | 20           | 2175             | 2132.5               | LTE B30  | 10           | 8620             | 2355                 | -        | -            | -                | -                    | 21.63                                 | 21.77                             |
| CA 2A-7A-12A-66A      | LTE B12  | 5            | 23155 | 713.5     | 64QAM            | 1                    | 24        | 5155             | 743.5                | LTE B2   | 20           | 900              | 1960                 | LTE B7   | 20           | 3100             | 2695                 | LTE B66  | 20           | 66786            | 2145                 | -        | -            | -                | -                    | 21.57                                 | 21.77                             |
| CA 2A-2A-12A-66A-66A  | LTE B12  | 5            | 23155 | 713.5     | 64QAM            | 1                    | 24        | 5155             | 743.5                | LTE B2   | 20           | 900              | 1960                 | LTE B2   | 20           | 700              | 1940                 | LTE B66  | 20           | 66786            | 2145                 | LTE B66  | 20           | 67236            | 2190                 | 21.52                                 | 21.77                             |
| CA 2A-2A-12A-30A-66A  | LTE B12  | 5            | 23155 | 713.5     | 64QAM            | 1                    | 24        | 5155             | 743.5                | LTE B2   | 20           | 900              | 1960                 | LTE B2   | 20           | 700              | 1940                 | LTE B30  | 10           | 8620             | 2355                 | LTE B66  | 20           | 66786            | 2145                 | 21.61                                 | 21.77                             |
| CA 2A-13A-30A-66A-66A | LTE B12  | 5            | 23155 | 713.5     | 64QAM            | 1                    | 24        | 5155             | 743.5                | LTE B2   | 20           | 900              | 1960                 | LTE B30  | 10           | 8620             | 2355                 | LTE B66  | 20           | 66786            | 2145                 | LTE B66  | 20           | 67236            | 2190                 | 21.51                                 | 21.77                             |

## 1.3.3

## LTE Band 13 as PCC

Table 3  
Output Powers – Ant 3

| Combination       | PCC Band | PCC BW [MHz] | PCC          |                      |       |           |                  | SCC 1            |                      |          |              | SCC 2            |                      |          |              | SCC 3            |                      |          |              | SCC 4            |                      |          |              | Power            |                      |                                       |                                   |       |       |       |
|-------------------|----------|--------------|--------------|----------------------|-------|-----------|------------------|------------------|----------------------|----------|--------------|------------------|----------------------|----------|--------------|------------------|----------------------|----------|--------------|------------------|----------------------|----------|--------------|------------------|----------------------|---------------------------------------|-----------------------------------|-------|-------|-------|
|                   |          |              | PCC (UL) Ch. | PCC (UL) Freq. [MHz] | Mod.  | PCC UL RB | PCC UL RB Offset | PCC (DL) Channel | PCC (DL) Freq. [MHz] | SCC Band | SCC BW [MHz] | SCC (DL) Channel | SCC (DL) Freq. [MHz] | SCC Band | SCC BW [MHz] | SCC (DL) Channel | SCC (DL) Freq. [MHz] | SCC Band | SCC BW [MHz] | SCC (DL) Channel | SCC (DL) Freq. [MHz] | SCC Band | SCC BW [MHz] | SCC (DL) Channel | SCC (DL) Freq. [MHz] | LTE Tx Power with DL CA Enabled [dBm] | LTE Single Carrier Tx Power [dBm] |       |       |       |
| CA 4A-4A-13A      | LTE B13  | 10           | 23230        | 762                  | 64QAM | 1         | 0                | 5230             | 753                  | LTE B4   | 20           | 2175             | 2132.5               | LTE B4   | 20           | 2360             | 2150                 | -        | -            | -                | -                    | -        | -            | -                | -                    | -                                     | -                                 | 21.44 | 21.64 |       |
| CA 4A-4A-13A      | LTE B13  | 10           | 23230        | 762                  | 64QAM | 1         | 0                | 5230             | 753                  | LTE B2   | 20           | 900              | 1960                 | LTE B4   | 20           | 2175             | 2132.5               | -        | -            | -                | -                    | -        | -            | -                | -                    | -                                     | -                                 | 21.58 | 21.64 |       |
| CA 2A-13A-66A     | LTE B13  | 5            | 23230        | 762                  | 64QAM | 1         | 12               | 5230             | 753                  | LTE B2   | 20           | 900              | 1960                 | LTE B46  | 20           | 50655            | 5537.5               | -        | -            | -                | -                    | -        | -            | -                | -                    | -                                     | -                                 | 21.54 | 21.80 |       |
| CA 13A-66A-66A    | LTE B13  | 5            | 23230        | 762                  | 64QAM | 1         | 12               | 5230             | 753                  | LTE B46  | 20           | 50655            | 5537.5               | LTE B66  | 20           | 66786            | 2145                 | -        | -            | -                | -                    | -        | -            | -                | -                    | -                                     | -                                 | 21.61 | 21.80 |       |
| CA 13A-66A-66A    | LTE B13  | 5            | 23230        | 762                  | 64QAM | 1         | 12               | 5230             | 753                  | LTE B46  | 20           | 50655            | 5537.5               | LTE B66  | 20           | 66786            | 2145                 | -        | -            | -                | -                    | -        | -            | -                | -                    | -                                     | -                                 | 21.75 | 21.80 |       |
| CA 13A-66A-66C    | LTE B13  | 5            | 23230        | 762                  | 64QAM | 1         | 12               | 5230             | 753                  | LTE B66  | 20           | 66786            | 2145                 | LTE B66  | 5            | 67263            | 2192.2               | LTE B66  | 15           | 67263            | 2192.5               | -        | -            | -                | -                    | -                                     | -                                 | -     | 21.53 | 21.80 |
| CA 2A-2A-13A-66A  | LTE B13  | 5            | 23230        | 762                  | 64QAM | 1         | 12               | 5230             | 753                  | LTE B2   | 20           | 900              | 1960                 | LTE B2   | 20           | 700              | 1940                 | LTE B66  | 20           | 66786            | 2145                 | -        | -            | -                | -                    | -                                     | -                                 | -     | 21.47 | 21.80 |
| CA 2A-13A-66C     | LTE B13  | 5            | 23230        | 762                  | 64QAM | 1         | 12               | 5230             | 753                  | LTE B2   | 20           | 900              | 1960                 | LTE B46  | 20           | 50655            | 5537.5               | LTE B46  | 20           | 50467            | 5517.7               | -        | -            | -                | -                    | -                                     | -                                 | -     | 21.63 | 21.80 |
| CA 2A-13A-66A-66A | LTE B13  | 5            | 23230        | 762                  | 64QAM | 1         | 12               | 5230             | 753                  | LTE B2   | 20           | 900              | 1960                 | LTE B66  | 20           | 66786            | 2145                 | LTE B66  | 20           | 67236            | 2190                 | -        | -            | -                | -                    | -                                     | -                                 | -     | 21.40 | 21.80 |
| CA 2A-13A-66C     | LTE B13  | 5            | 23230        | 762                  | 64QAM | 1         | 12               | 5230             | 753                  | LTE B2   | 20           | 900              | 1960                 | LTE B66  | 15           | 66786            | 2145                 | LTE B66  | 5            | 66973            | 2194.3               | -        | -            | -                | -                    | -                                     | -                                 | -     | 21.57 | 21.80 |
| CA 13A-66C-66A    | LTE B13  | 5            | 23230        | 762                  | 64QAM | 1         | 12               | 5230             | 753                  | LTE B46  | 20           | 50655            | 5537.5               | LTE B46  | 20           | 50467            | 5517.7               | LTE B66  | 20           | 66994            | 2144.8               | -        | -            | -                | -                    | -                                     | -                                 | -     | 21.54 | 21.80 |
| CA 13A-66C-66A    | LTE B13  | 5            | 23230        | 762                  | 64QAM | 1         | 12               | 5230             | 753                  | LTE B66  | 20           | 66786            | 2145                 | LTE B46  | 20           | 50655            | 5537.5               | LTE B66  | 20           | 66786            | 2145                 | -        | -            | -                | -                    | -                                     | -                                 | -     | 21.76 | 21.80 |
| CA 13A-46C-66A    | LTE B13  | 5            | 23230        | 762                  | 64QAM | 1         | 12               | 5230             | 753                  | LTE B46  | 20           | 50655            | 5537.5               | LTE B46  | 20           | 50467            | 5517.7               | LTE B66  | 20           | 66786            | 2145                 | -        | -            | -                | -                    | -                                     | -                                 | -     | 21.78 | 21.80 |
| CA 13A-46C        | LTE B13  | 5            | 23230        | 762                  | 64QAM | 1         | 12               | 5230             | 753                  | LTE B66  | 20           | 50655            | 5537.5               | LTE B46  | 20           | 50467            | 5517.7               | LTE B46  | 20           | 50863            | 5557.3               | LTE B46  | 20           | 50863            | 5557.3               | -                                     | -                                 | 21.52 | 21.80 |       |
| CA 2A-13A-46D     | LTE B13  | 5            | 23230        | 762                  | 64QAM | 1         | 12               | 5230             | 753                  | LTE B2   | 20           | 900              | 1960                 | LTE B46  | 20           | 50655            | 5537.5               | LTE B46  | 20           | 50467            | 5517.7               | LTE B46  | 20           | 50863            | 5557.3               | -                                     | -                                 | 21.45 | 21.80 |       |
| CA 13A-46D-66A    | LTE B13  | 5            | 23230        | 762                  | 64QAM | 1         | 12               | 5230             | 753                  | LTE B66  | 20           | 50655            | 5537.5               | LTE B46  | 20           | 50467            | 5517.7               | LTE B46  | 20           | 50863            | 5557.3               | LTE B66  | 20           | 66786            | 2145                 | -                                     | -                                 | 21.51 | 21.80 |       |

## 1.3.4

## LTE Band 14 as PCC

Table 4  
Output Powers – Ant 3

| Combination           | PCC Band | PCC BW [MHz] | PCC          |                      |       |           |                  | SCC 1            |                      |          |              |                  | SCC 2                |          |              |                  |                      | SCC 3    |              |                  |                      |          | SCC 4        |                  |                      |                                       |                                   | Power |  |
|-----------------------|----------|--------------|--------------|----------------------|-------|-----------|------------------|------------------|----------------------|----------|--------------|------------------|----------------------|----------|--------------|------------------|----------------------|----------|--------------|------------------|----------------------|----------|--------------|------------------|----------------------|---------------------------------------|-----------------------------------|-------|--|
|                       |          |              | PCC (UL) Ch. | PCC (UL) Freq. [MHz] | Mod.  | PCC UL RB | PCC UL RB Offset | PCC (DL) Channel | PCC (DL) Freq. [MHz] | SCC Band | SCC BW [MHz] | SCC (DL) Channel | SCC (DL) Freq. [MHz] | SCC Band | SCC BW [MHz] | SCC (DL) Channel | SCC (DL) Freq. [MHz] | SCC Band | SCC BW [MHz] | SCC (DL) Channel | SCC (DL) Freq. [MHz] | SCC Band | SCC BW [MHz] | SCC (DL) Channel | SCC (DL) Freq. [MHz] | LTE Tx Power with DL CA Enabled [dBm] | LTE Single Carrier Tx Power (dBm) |       |  |
| CA 2A-2A-14A-66A-66A  | LTE B14  | 5            | 23130        | 793                  | 16QAM | 1         | 24               | 5330             | 763                  | LTE B2   | 20           | 900              | 1960                 | LTE B2   | 20           | 700              | 1940                 | LTE B66  | 20           | 66786            | 2148                 | LTE B66  | 20           | 67236            | 2180                 | 21.33                                 | 21.69                             |       |  |
| CA 2A-2A-14A-30A-66A  | LTE B14  | 5            | 23130        | 793                  | 16QAM | 1         | 24               | 5330             | 763                  | LTE B2   | 20           | 900              | 1960                 | LTE B2   | 20           | 700              | 1940                 | LTE B30  | 10           | 9820             | 2355                 | LTE B66  | 20           | 66786            | 2148                 | 21.28                                 | 21.69                             |       |  |
| CA 2A-14A-30A-66A-66A | LTE B14  | 5            | 23130        | 793                  | 16QAM | 1         | 24               | 5330             | 763                  | LTE B2   | 20           | 900              | 1960                 | LTE B30  | 10           | 9820             | 2355                 | LTE B66  | 20           | 66786            | 2145                 | LTE B66  | 20           | 67236            | 2180                 | 21.38                                 | 21.69                             |       |  |

## 1.3.5

## LTE Band 5 as PCC

**Table 5**  
**Output Powers – Ant 3**

| Combination          | PCC Band | PCC BW [MHz] | PCC                  |       |           |                      | PCC (UL) RB Offset | PCC (DL) Channel | SCC 1    |              |                  |                      | SCC 2    |              |                  |                      | SCC 3    |              |                  |                      | SCC 4    |              |                  |                      | Power                              |                                   |       |
|----------------------|----------|--------------|----------------------|-------|-----------|----------------------|--------------------|------------------|----------|--------------|------------------|----------------------|----------|--------------|------------------|----------------------|----------|--------------|------------------|----------------------|----------|--------------|------------------|----------------------|------------------------------------|-----------------------------------|-------|
|                      |          |              | PCC (UL) Freq. [MHz] | Mod.  | PCC UL RB | PCC (DL) Freq. [MHz] |                    |                  | SCC Band | SCC BW [MHz] | SCC (DL) Channel | SCC (DL) Freq. [MHz] | SCC Band | SCC BW [MHz] | SCC (DL) Channel | SCC (DL) Freq. [MHz] | SCC Band | SCC BW [MHz] | SCC (DL) Channel | SCC (DL) Freq. [MHz] | SCC Band | SCC BW [MHz] | SCC (DL) Channel | SCC (DL) Freq. [MHz] | LTE Tx Power with CA Enabled (dBm) | LTE Single Carrier Tx Power (dBm) |       |
| CA 5A-7A             | LTE B5   | 5            | 20025                | 846.5 | 64QAM     | 1                    | 0                  | 2625             | 891.5    | LTE B7       | 20               | 3100                 | 2655     | -            | -                | -                    | -        | -            | -                | -                    | -        | -            | -                | -                    | -                                  | 21.19                             | 21.20 |
| CA 5A-25A            | LTE B5   | 5            | 20025                | 846.5 | 64QAM     | 1                    | 0                  | 2625             | 891.5    | LTE B25      | 20               | 8365                 | 1962.5   | -            | -                | -                    | -        | -            | -                | -                    | -        | -            | -                | -                    | -                                  | 21.19                             | 21.20 |
| CA 5A-41A            | LTE B5   | 5            | 20025                | 846.5 | 64QAM     | 1                    | 0                  | 2625             | 891.5    | LTE B41      | 20               | 40620                | 2593     | -            | -                | -                    | -        | -            | -                | -                    | -        | -            | -                | -                    | -                                  | 21.14                             | 21.20 |
| CA 5A-46A (1)        | LTE B5   | 5            | 20025                | 846.5 | 64QAM     | 1                    | 0                  | 2625             | 891.5    | LTE B46      | 20               | 50065                | 5537.5   | -            | -                | -                    | -        | -            | -                | -                    | -        | -            | -                | -                    | -                                  | 21.20                             | 21.20 |
| CA 5A-46A            | LTE B5   | 5            | 20025                | 846.5 | 64QAM     | 1                    | 0                  | 2625             | 891.5    | LTE B46      | 20               | 50065                | 5537.5   | -            | -                | -                    | -        | -            | -                | -                    | -        | -            | -                | -                    | -                                  | 21.18                             | 21.20 |
| CA 2C-5A             | LTE B5   | 5            | 20025                | 846.5 | 64QAM     | 1                    | 0                  | 2625             | 891.5    | LTE B2       | 20               | 800                  | 1960     | LTE B2       | 20               | 702                  | 1940.2   | -            | -                | -                    | -        | -            | -                | -                    | -                                  | 20.98                             | 21.20 |
| CA 4A-5B (1)         | LTE B5   | 5            | 20025                | 846.5 | 64QAM     | 1                    | 0                  | 2625             | 891.5    | LTE B5       | 5                | 2577                 | 886.7    | LTE B4       | 20               | 2175                 | 2132.5   | LTE B4       | 20               | 2250                 | 2150     | -            | -                | -                    | -                                  | 20.97                             | 21.20 |
| CA 5A-7A-7A          | LTE B5   | 5            | 20025                | 846.5 | 64QAM     | 1                    | 0                  | 2625             | 891.5    | LTE B7       | 20               | 3100                 | 2655     | LTE B7       | 20               | 2850                 | 2630     | -            | -                | -                    | -        | -            | -                | -                    | -                                  | 20.94                             | 21.20 |
| CA 5A-7C             | LTE B5   | 5            | 20025                | 846.5 | 64QAM     | 1                    | 0                  | 2625             | 891.5    | LTE B7       | 20               | 3100                 | 2655     | LTE B7       | 20               | 2902                 | 2635.2   | -            | -                | -                    | -        | -            | -                | -                    | -                                  | 21.03                             | 21.20 |
| CA 5A-46C (1)        | LTE B5   | 5            | 20025                | 846.5 | 64QAM     | 1                    | 0                  | 2625             | 891.5    | LTE B46      | 20               | 50065                | 5537.5   | LTE B46      | 20               | 50467                | 5517.7   | -            | -                | -                    | -        | -            | -                | -                    | -                                  | 20.97                             | 21.20 |
| CA 2A-5A-46A         | LTE B5   | 5            | 20025                | 846.5 | 64QAM     | 1                    | 0                  | 2625             | 891.5    | LTE B2       | 20               | 800                  | 1960     | LTE B46      | 20               | 50065                | 5537.5   | -            | -                | -                    | -        | -            | -                | -                    | -                                  | 21.08                             | 21.20 |
| CA 5A-46A-66A        | LTE B5   | 5            | 20025                | 846.5 | 64QAM     | 1                    | 0                  | 2625             | 891.5    | LTE B46      | 20               | 50065                | 5537.5   | LTE B66      | 20               | 66786                | 2145     | -            | -                | -                    | -        | -            | -                | -                    | -                                  | 20.96                             | 21.20 |
| CA 4A-5B             | LTE B5   | 5            | 20025                | 846.5 | 64QAM     | 1                    | 0                  | 2625             | 891.5    | LTE B5       | 10               | 2553                 | 884.3    | LTE B4       | 20               | 2175                 | 2132.5   | LTE B4       | 10               | 2250                 | 2150     | -            | -                | -                    | -                                  | 21.01                             | 21.20 |
| CA 5A-46D (1)        | LTE B5   | 5            | 20025                | 846.5 | 64QAM     | 1                    | 0                  | 2625             | 891.5    | LTE B46      | 20               | 50065                | 5537.5   | LTE B46      | 20               | 50467                | 5517.7   | LTE B46      | 20               | 50065                | 5537.5   | -            | -                | -                    | -                                  | 21.07                             | 21.20 |
| CA 5A-66A-66B        | LTE B5   | 5            | 20025                | 846.5 | 64QAM     | 1                    | 0                  | 2625             | 891.5    | LTE B66      | 20               | 66786                | 2145     | LTE B66      | 5                | 67168                | 2183.2   | LTE B66      | 15               | 67261                | 2162.9   | -            | -                | -                    | -                                  | 21.01                             | 21.20 |
| CA 5A-66A-66C        | LTE B5   | 5            | 20025                | 846.5 | 64QAM     | 1                    | 0                  | 2625             | 891.5    | LTE B66      | 20               | 66786                | 2145     | LTE B66      | 20               | 67038                | 2170.2   | LTE B66      | 20               | 67236                | 2190     | -            | -                | -                    | -                                  | 20.99                             | 21.20 |
| CA 2A-2A-4A-5A       | LTE B5   | 5            | 20025                | 846.5 | 64QAM     | 1                    | 0                  | 2625             | 891.5    | LTE B2       | 20               | 800                  | 1960     | LTE B2       | 20               | 700                  | 1940     | LTE B4       | 20               | 2175                 | 2132.5   | -            | -                | -                    | -                                  | 20.98                             | 21.20 |
| CA 2A-4A-4A-5A       | LTE B5   | 5            | 20025                | 846.5 | 64QAM     | 1                    | 0                  | 2625             | 891.5    | LTE B2       | 20               | 800                  | 1960     | LTE B4       | 20               | 2175                 | 2132.5   | LTE B4       | 20               | 2350                 | 2150     | -            | -                | -                    | -                                  | 20.97                             | 21.20 |
| CA 2A-5B             | LTE B5   | 5            | 20025                | 846.5 | 64QAM     | 1                    | 0                  | 2625             | 891.5    | LTE B5       | 10               | 2553                 | 884.3    | LTE B2       | 20               | 800                  | 1960     | LTE B4       | 20               | 2175                 | 2132.5   | -            | -                | -                    | -                                  | 21.01                             | 21.20 |
| CA 2A-5B-66C         | LTE B5   | 5            | 20025                | 846.5 | 64QAM     | 1                    | 0                  | 2625             | 891.5    | LTE B2       | 20               | 800                  | 1960     | LTE B46      | 20               | 50065                | 5537.5   | LTE B46      | 20               | 50467                | 5517.7   | -            | -                | -                    | -                                  | 21.07                             | 21.20 |
| CA 4A-4A-5A-30A      | LTE B5   | 5            | 20025                | 846.5 | 64QAM     | 1                    | 0                  | 2625             | 891.5    | LTE B4       | 20               | 2175                 | 2132.5   | LTE B4       | 10               | 2350                 | 2150     | LTE B30      | 10               | 8620                 | 2355     | -            | -                | -                    | -                                  | 21.05                             | 21.20 |
| CA 5A-46C-66A        | LTE B5   | 5            | 20025                | 846.5 | 64QAM     | 1                    | 0                  | 2625             | 891.5    | LTE B46      | 20               | 50065                | 5537.5   | LTE B46      | 20               | 50467                | 5517.7   | LTE B66      | 20               | 66786                | 2145     | -            | -                | -                    | -                                  | 21.01                             | 21.20 |
| CA 2A-4A-5A-30A      | LTE B5   | 5            | 20025                | 846.5 | 64QAM     | 1                    | 0                  | 2625             | 891.5    | LTE B2       | 20               | 800                  | 1960     | LTE B4       | 20               | 2175                 | 2132.5   | LTE B30      | 10               | 8620                 | 2355     | -            | -                | -                    | -                                  | 21.05                             | 21.20 |
| CA 2A-2A-5A-66A-66A  | LTE B5   | 5            | 20025                | 846.5 | 64QAM     | 1                    | 0                  | 2625             | 891.5    | LTE B2       | 20               | 800                  | 1960     | LTE B2       | 20               | 700                  | 1940     | LTE B66      | 20               | 66786                | 2145     | LTE B66      | 20               | 67236                | 2190                               | 20.97                             | 21.20 |
| CA 2A-5A-66B         | LTE B5   | 5            | 20025                | 846.5 | 64QAM     | 1                    | 0                  | 2625             | 891.5    | LTE B2       | 20               | 800                  | 1960     | LTE B2       | 20               | 700                  | 1940     | LTE B66      | 15               | 66786                | 2145     | LTE B66      | 5                | 66879                | 2154.3                             | 20.92                             | 21.20 |
| CA 2A-2A-5A-66C      | LTE B5   | 5            | 20025                | 846.5 | 64QAM     | 1                    | 0                  | 2625             | 891.5    | LTE B2       | 20               | 800                  | 1960     | LTE B2       | 20               | 700                  | 1940     | LTE B66      | 20               | 66786                | 2145     | LTE B66      | 20               | 66984                | 2168.8                             | 20.98                             | 21.20 |
| CA 2A-5A-46D         | LTE B5   | 5            | 20025                | 846.5 | 64QAM     | 1                    | 0                  | 2625             | 891.5    | LTE B2       | 20               | 800                  | 1960     | LTE B46      | 20               | 50065                | 5537.5   | LTE B46      | 20               | 50467                | 5517.7   | LTE B46      | 20               | 50065                | 5537.5                             | 20.99                             | 21.20 |
| CA 2A-5B-66B         | LTE B5   | 5            | 20025                | 846.5 | 64QAM     | 1                    | 0                  | 2625             | 891.5    | LTE B5       | 10               | 2553                 | 884.3    | LTE B2       | 20               | 800                  | 1960     | LTE B66      | 15               | 66786                | 2145     | LTE B66      | 5                | 66879                | 2154.3                             | 21.20                             | 21.20 |
| CA 2A-5B-66C         | LTE B5   | 5            | 20025                | 846.5 | 64QAM     | 1                    | 0                  | 2625             | 891.5    | LTE B5       | 10               | 2553                 | 884.3    | LTE B2       | 20               | 800                  | 1960     | LTE B66      | 20               | 66786                | 2145     | LTE B66      | 20               | 66984                | 2168.8                             | 20.93                             | 21.20 |
| CA 2A-5B-66A-66A     | LTE B5   | 5            | 20025                | 846.5 | 64QAM     | 1                    | 0                  | 2625             | 891.5    | LTE B5       | 10               | 2553                 | 884.3    | LTE B2       | 20               | 800                  | 1960     | LTE B66      | 20               | 66786                | 2145     | LTE B66      | 20               | 67236                | 2190                               | 20.94                             | 21.20 |
| CA 4A-46C-66A        | LTE B5   | 5            | 20025                | 846.5 | 64QAM     | 1                    | 0                  | 2625             | 891.5    | LTE B46      | 20               | 50065                | 5537.5   | LTE B46      | 20               | 50467                | 5517.7   | LTE B46      | 20               | 50065                | 5537.5   | LTE B66      | 20               | 66786                | 2145                               | 20.91                             | 21.20 |
| CA 5B-30A-66A-66A    | LTE B5   | 5            | 20025                | 846.5 | 64QAM     | 1                    | 0                  | 2625             | 891.5    | LTE B5       | 10               | 2553                 | 884.3    | LTE B30      | 20               | 9820                 | 2355     | LTE B66      | 20               | 66786                | 2145     | LTE B66      | 20               | 67236                | 2190                               | 20.95                             | 21.20 |
| CA 2A-2A-5A-30A-66A  | LTE B5   | 5            | 20025                | 846.5 | 64QAM     | 1                    | 0                  | 2625             | 891.5    | LTE B2       | 20               | 800                  | 1960     | LTE B2       | 20               | 700                  | 1940     | LTE B30      | 10               | 8620                 | 2355     | LTE B66      | 20               | 66786                | 2145                               | 20.87                             | 21.20 |
| CA 2A-5A-30A-66A-66A | LTE B5   | 5            | 20025                | 846.5 | 64QAM     | 1                    | 0                  | 2625             | 891.5    | LTE B2       | 20               | 800                  | 1960     | LTE B2       | 10               | 8620                 | 2355     | LTE B66      | 20               | 66786                | 2145     | LTE B66      | 20               | 67236                | 2190                               | 20.81                             | 21.20 |
| CA 2A-5B-30A-66A     | LTE B5   | 5            | 20025                | 846.5 | 64QAM     | 1                    | 0                  | 2625             | 891.5    | LTE B5       | 10               | 2553                 | 884.3    | LTE B2       | 20               | 800                  | 1960     | LTE B30      | 10               | 8620                 | 2355     | LTE B66      | 20               | 66786                | 2145                               | 20.92                             | 21.20 |

## 1.3.6

## LTE Band 26 as PCC

**Table 6**  
**Output Powers – Ant 3**

| Combination    | PCC      |              |              |                      |       |            |                  |                  |                      | SCC 1    |              |                  | SCC 2                |          |              |                  | Power                |                                       |                                   |
|----------------|----------|--------------|--------------|----------------------|-------|------------|------------------|------------------|----------------------|----------|--------------|------------------|----------------------|----------|--------------|------------------|----------------------|---------------------------------------|-----------------------------------|
|                | PCC Band | PCC BW [MHz] | PCC (UL) Ch. | PCC (UL) Freq. [MHz] | Mod.  | PCC UL# RB | PCC UL RB Offset | PCC (DL) Channel | PCC (DL) Freq. [MHz] | SCC Band | SCC BW [MHz] | SCC (DL) Channel | SCC (DL) Freq. [MHz] | SCC Band | SCC BW [MHz] | SCC (DL) Channel | SCC (DL) Freq. [MHz] | LTE Tx.Power with DL CA Enabled (dBm) | LTE Single Carrier Tx Power (dBm) |
| CA 7A-26A      | LTE B26  | 10           | 26990        | 844                  | QPSK  | 25         | 12               | 8990             | 889                  | LTE B7   | 20           | 3100             | 2655                 | -        | -            | -                | -                    | 21.48                                 | 21.50                             |
| CA 25A-26A     | LTE B26  | 10           | 26990        | 844                  | QPSK  | 25         | 12               | 8990             | 889                  | LTE B25  | 20           | 8365             | 1962.5               | -        | -            | -                | -                    | 21.50                                 | 21.50                             |
| CA 26A-41A     | LTE B26  | 10           | 26990        | 844                  | QPSK  | 25         | 12               | 8990             | 889                  | LTE B41  | 20           | 40620            | 2593                 | -        | -            | -                | -                    | 21.49                                 | 21.50                             |
| CA 7A-7A-26A   | LTE B26  | 10           | 26990        | 844                  | QPSK  | 25         | 12               | 8990             | 889                  | LTE B7   | 20           | 3100             | 2655                 | LTE B7   | 20           | 2850             | 2630                 | 21.48                                 | 21.50                             |
| CA 25A-25A-26A | LTE B26  | 5            | 27015        | 846.5                | 64QAM | 1          | 0                | 9015             | 891.5                | LTE B25  | 20           | 8365             | 1962.5               | LTE B25  | 20           | 8500             | 1985                 | 21.14                                 | 21.30                             |
| CA 26A-41C     | LTE B26  | 10           | 26990        | 844                  | QPSK  | 25         | 12               | 8990             | 889                  | LTE B41  | 20           | 40620            | 2593                 | LTE B41  | 20           | 40422            | 2573.2               | 21.39                                 | 21.50                             |

FCC ID: BCGA2069



SAR EVALUATION REPORT

Reviewed by:  
Quality Manager

Test Dates:  
12/18/2019-1/28/2020

DUT Type:  
Tablet Device

APPENDIX F:  
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**Table 7**  
**Output Powers – Ant 2B**

|                                            |                                                                                                                  |                                        |
|--------------------------------------------|------------------------------------------------------------------------------------------------------------------|----------------------------------------|
| FCC ID: BCGA2069                           |  <b>SAR EVALUATION REPORT</b> | <b>Reviewed by:</b><br>Quality Manager |
| <b>Test Dates:</b><br>12/18/2019-1/28/2020 | <b>DUT Type:</b><br>Tablet Device                                                                                | APPENDIX F:<br>Page 6 of 16            |

## 1.3.8 LTE Band 25 as PCC

Table 8  
Output Powers – Ant 2A

| Combination    | PCC      |              |             |                      |       |           |                  |                  |                      |          | SCC 1        |                  |                      |          | SCC 2        |                  |                      |          | SCC 3        |                  |                      |          | SCC 4        |                  |                      |                                       | Power                             |       |       |       |
|----------------|----------|--------------|-------------|----------------------|-------|-----------|------------------|------------------|----------------------|----------|--------------|------------------|----------------------|----------|--------------|------------------|----------------------|----------|--------------|------------------|----------------------|----------|--------------|------------------|----------------------|---------------------------------------|-----------------------------------|-------|-------|-------|
|                | PCC Band | PCC BW [MHz] | PCC [UL] Ch | PCC [UL] Freq. [MHz] | Mod.  | PCC UL RB | PCC UL RB Offset | PCC [DL] Channel | PCC [DL] Freq. [MHz] | SCC Band | SCC BW [MHz] | SCC [DL] Channel | SCC [DL] Freq. [MHz] | SCC Band | SCC BW [MHz] | SCC [DL] Channel | SCC [DL] Freq. [MHz] | SCC Band | SCC BW [MHz] | SCC [DL] Channel | SCC [DL] Freq. [MHz] | SCC Band | SCC BW [MHz] | SCC [DL] Channel | SCC [DL] Freq. [MHz] | LTE Tx Power with DL CA Enabled [dBm] | LTE Single Carrier Tx Power [dBm] |       |       |       |
| CA 5A-25A      | LTE B25  | 20           | 26140       | 1860                 | 64QAM | 1         | 99               | 8140             | 1940                 | LTE B5   | 10           | 2525             | 881.5                | -        | -            | -                | -                    | -        | -            | -                | -                    | -        | -            | -                | -                    | -                                     | 15.00                             | 15.00 |       |       |
| CA 12A-25A     | LTE B25  | 20           | 26140       | 1860                 | 64QAM | 1         | 99               | 8140             | 1940                 | LTE B12  | 10           | 5095             | 737.5                | -        | -            | -                | -                    | -        | -            | -                | -                    | -        | -            | -                | -                    | -                                     | 14.98                             | 15.00 |       |       |
| CA 25A-26A     | LTE B25  | 20           | 26140       | 1860                 | 64QAM | 1         | 99               | 8140             | 1940                 | LTE B25  | 10           | 8865             | 876.5                | -        | -            | -                | -                    | -        | -            | -                | -                    | -        | -            | -                | -                    | -                                     | 14.95                             | 15.00 |       |       |
| CA 25A-46A     | LTE B25  | 20           | 26140       | 1860                 | 64QAM | 1         | 99               | 8140             | 1940                 | LTE B46  | 20           | 50065            | 5037.5               | -        | -            | -                | -                    | -        | -            | -                | -                    | -        | -            | -                | -                    | -                                     | 15.00                             | 15.00 |       |       |
| CA 25A-25A-26A | LTE B25  | 20           | 26140       | 1860                 | 64QAM | 1         | 99               | 8140             | 1940                 | LTE B25  | 20           | 8590             | 1985                 | LTE B26  | 5            | 8865             | 876.5                | -        | -            | -                | -                    | -        | -            | -                | -                    | -                                     | -                                 | 14.95 | 15.00 |       |
| CA 25A-25A-41A | LTE B25  | 20           | 26140       | 1860                 | 64QAM | 1         | 99               | 8140             | 1940                 | LTE B25  | 20           | 8590             | 1985                 | LTE B41  | 20           | 40620            | 2093                 | -        | -            | -                | -                    | -        | -            | -                | -                    | -                                     | -                                 | 14.67 | 15.00 |       |
| CA 25A-41C     | LTE B25  | 20           | 26140       | 1860                 | 64QAM | 1         | 99               | 8140             | 1940                 | LTE B41  | 20           | 40620            | 2093                 | LTE B41  | 20           | 40620            | 2093                 | -        | -            | -                | -                    | -        | -            | -                | -                    | -                                     | -                                 | 14.92 | 15.00 |       |
| CA 25A-46C     | LTE B25  | 20           | 26140       | 1860                 | 64QAM | 1         | 99               | 8140             | 1940                 | LTE B46  | 20           | 50065            | 5037.5               | LTE B46  | 20           | 50067            | 5017.7               | -        | -            | -                | -                    | -        | -            | -                | -                    | -                                     | -                                 | 14.91 | 15.00 |       |
| CA 25A-25A-41C | LTE B25  | 20           | 26140       | 1860                 | 64QAM | 1         | 99               | 8140             | 1940                 | LTE B25  | 20           | 8590             | 1985                 | LTE B41  | 20           | 40620            | 2093                 | LTE B41  | 20           | 40620            | 2093                 | -        | -            | -                | -                    | -                                     | -                                 | -     | 14.42 | 15.00 |
| CA 25A-46C     | LTE B25  | 20           | 26140       | 1860                 | 64QAM | 1         | 99               | 8140             | 1940                 | LTE B46  | 20           | 50065            | 5037.5               | LTE B46  | 20           | 50067            | 5017.7               | LTE B46  | 20           | 50065            | 5037.5               | -        | -            | -                | -                    | -                                     | -                                 | -     | 14.91 | 15.00 |
| CA 25A-25A-41D | LTE B25  | 20           | 26140       | 1860                 | 64QAM | 1         | 99               | 8140             | 1940                 | LTE B25  | 20           | 8590             | 1985                 | LTE B41  | 20           | 40620            | 2093                 | LTE B41  | 20           | 40618            | 2912.8               | -        | -            | -                | -                    | -                                     | -                                 | -     | 14.49 | 15.00 |

## 1.3.9 LTE Band 30 as PCC

Table 9  
Output Powers – Ant 2A

| Combination           | PCC Band | PCC          |             |                      |       |           |                  |                  |                      |          |              | SCC 1            |                      |          |              | SCC 2            |                      |          |              | SCC 3            |                      |          |              | SCC 4            |                      |                                       |                                   | Power |       |       |
|-----------------------|----------|--------------|-------------|----------------------|-------|-----------|------------------|------------------|----------------------|----------|--------------|------------------|----------------------|----------|--------------|------------------|----------------------|----------|--------------|------------------|----------------------|----------|--------------|------------------|----------------------|---------------------------------------|-----------------------------------|-------|-------|-------|
|                       |          | PCC BW [MHz] | PCC [UL] Ch | PCC [UL] Freq. [MHz] | Mod.  | PCC UL RB | PCC UL RB Offset | PCC [DL] Channel | PCC [DL] Freq. [MHz] | SCC Band | SCC BW [MHz] | SCC [DL] Channel | SCC [DL] Freq. [MHz] | SCC Band | SCC BW [MHz] | SCC [DL] Channel | SCC [DL] Freq. [MHz] | SCC Band | SCC BW [MHz] | SCC [DL] Channel | SCC [DL] Freq. [MHz] | SCC Band | SCC BW [MHz] | SCC [DL] Channel | SCC [DL] Freq. [MHz] | LTE Tx Power with DL CA Enabled [dBm] | LTE Single Carrier Tx Power [dBm] |       |       |       |
| CA 3C-30A             | LTE B30  | 10           | 27710       | 2310                 | 16QAM | 1         | 25               | 9820             | 2395                 | LTE B2   | 20           | 900              | 1960                 | LTE B2   | 20           | 702              | 1940.2               | -        | -            | -                | -                    | -        | -            | -                | -                    | -                                     | -                                 | 13.59 | 13.60 |       |
| CA 2A-2A-25A-30A      | LTE B30  | 10           | 27710       | 2310                 | 16QAM | 1         | 25               | 9820             | 2395                 | LTE B2   | 20           | 900              | 1960                 | LTE B2   | 20           | 700              | 1940                 | LTE B29  | 10           | 9715             | 722.5                | -        | -            | -                | -                    | -                                     | -                                 | -     | 13.48 | 13.60 |
| CA 4A-4A-5A-30A       | LTE B30  | 10           | 27710       | 2310                 | 16QAM | 1         | 25               | 9820             | 2395                 | LTE B4   | 20           | 2175             | 2132.5               | LTE B4   | 20           | 2360             | 2150                 | LTE B5   | 10           | 2625             | 881.5                | -        | -            | -                | -                    | -                                     | -                                 | -     | 13.55 | 13.60 |
| CA 4A-4A-12A-30A      | LTE B30  | 10           | 27710       | 2310                 | 16QAM | 1         | 25               | 9820             | 2395                 | LTE B4   | 20           | 2175             | 2132.5               | LTE B4   | 20           | 2360             | 2150                 | LTE B12  | 10           | 5095             | 737.5                | -        | -            | -                | -                    | -                                     | -                                 | -     | 13.40 | 13.60 |
| CA 2A-4A-5A-30A       | LTE B30  | 10           | 27710       | 2310                 | 16QAM | 1         | 25               | 9820             | 2395                 | LTE B2   | 20           | 900              | 1960                 | LTE B4   | 20           | 2175             | 2132.5               | LTE B5   | 10           | 2625             | 881.5                | -        | -            | -                | -                    | -                                     | -                                 | -     | 13.58 | 13.60 |
| CA 2A-4A-12A-30A      | LTE B30  | 10           | 27710       | 2310                 | 16QAM | 1         | 25               | 9820             | 2395                 | LTE B2   | 20           | 900              | 1960                 | LTE B4   | 20           | 2175             | 2132.5               | LTE B12  | 10           | 5095             | 737.5                | -        | -            | -                | -                    | -                                     | -                                 | -     | 13.57 | 13.60 |
| CA 2A-4A-25A-30A      | LTE B30  | 10           | 27710       | 2310                 | 16QAM | 1         | 25               | 9820             | 2395                 | LTE B2   | 20           | 900              | 1960                 | LTE B4   | 20           | 2175             | 2132.5               | LTE B29  | 10           | 9715             | 722.5                | -        | -            | -                | -                    | -                                     | -                                 | -     | 13.40 | 13.60 |
| CA 2A-25A-30A-66A     | LTE B30  | 10           | 27710       | 2310                 | 16QAM | 1         | 25               | 9820             | 2395                 | LTE B2   | 20           | 900              | 1960                 | LTE B29  | 10           | 9715             | 722.5                | LTE B66  | 20           | 66786            | 2145                 | -        | -            | -                | -                    | -                                     | -                                 | -     | 13.59 | 13.60 |
| CA 5B-30A-66A-66A     | LTE B30  | 10           | 27710       | 2310                 | 16QAM | 1         | 25               | 9820             | 2395                 | LTE B5   | 10           | 2525             | 881.5                | LTE B5   | 5            | 2453             | 874.3                | LTE B66  | 20           | 66786            | 2145                 | LTE B66  | 20           | 67736            | 2190                 | -                                     | -                                 | 13.45 | 13.60 |       |
| CA 2A-2A-25A-30A-66A  | LTE B30  | 10           | 27710       | 2310                 | 16QAM | 1         | 25               | 9820             | 2395                 | LTE B2   | 20           | 900              | 1960                 | LTE B2   | 20           | 700              | 1940                 | LTE B5   | 10           | 2625             | 881.5                | LTE B66  | 20           | 66786            | 2145                 | -                                     | -                                 | 13.47 | 13.60 |       |
| CA 2A-2A-12A-30A-66A  | LTE B30  | 10           | 27710       | 2310                 | 16QAM | 1         | 25               | 9820             | 2395                 | LTE B2   | 20           | 900              | 1960                 | LTE B2   | 20           | 700              | 1940                 | LTE B12  | 10           | 5095             | 737.5                | LTE B66  | 20           | 66786            | 2145                 | -                                     | -                                 | 13.48 | 13.60 |       |
| CA 2A-2A-1A-30A-66A   | LTE B30  | 10           | 27710       | 2310                 | 16QAM | 1         | 25               | 9820             | 2395                 | LTE B2   | 20           | 900              | 1960                 | LTE B2   | 20           | 700              | 1940                 | LTE B14  | 10           | 5330             | 763                  | LTE B66  | 20           | 66786            | 2145                 | -                                     | -                                 | 13.57 | 13.60 |       |
| CA 2A-2A-30A-66A-66A  | LTE B30  | 10           | 27710       | 2310                 | 16QAM | 1         | 25               | 9820             | 2395                 | LTE B2   | 20           | 900              | 1960                 | LTE B5   | 10           | 2625             | 881.5                | LTE B66  | 20           | 66786            | 2145                 | LTE B66  | 20           | 67736            | 2190                 | -                                     | -                                 | 13.40 | 13.60 |       |
| CA 2A-5B-30A-66A      | LTE B30  | 10           | 27710       | 2310                 | 16QAM | 1         | 25               | 9820             | 2395                 | LTE B2   | 20           | 900              | 1960                 | LTE B5   | 10           | 2525             | 881.5                | LTE B5   | 5            | 2453             | 874.3                | LTE B66  | 20           | 66786            | 2145                 | -                                     | -                                 | 13.48 | 13.60 |       |
| CA 2A-12A-30A-66A-66A | LTE B30  | 10           | 27710       | 2310                 | 16QAM | 1         | 25               | 9820             | 2395                 | LTE B2   | 20           | 900              | 1960                 | LTE B12  | 10           | 5095             | 737.5                | LTE B66  | 20           | 66786            | 2145                 | LTE B66  | 20           | 67736            | 2190                 | -                                     | -                                 | 13.57 | 13.60 |       |
| CA 2A-1A-30A-66A-66A  | LTE B30  | 10           | 27710       | 2310                 | 16QAM | 1         | 25               | 9820             | 2395                 | LTE B2   | 20           | 900              | 1960                 | LTE B14  | 10           | 5330             | 763                  | LTE B66  | 20           | 66786            | 2145                 | LTE B66  | 20           | 67736            | 2190                 | -                                     | -                                 | 13.56 | 13.60 |       |

## 1.3.10 LTE Band 7 as PCC

Table 10  
Output Powers – Ant 4A

| Combination      | PCC Band | PCC BW [MHz] | PCC [UL] Ch. | PCC [UL] Freq. [MHz] | Mod.  | PCC UL RB | PCC UL RB Offset | PCC [DL] Channel | PCC [DL] Freq. [MHz] | SCC 1    |              |                  |                      | SCC 2    |              |                  |                      | SCC 3    |              |                  |                      | SCC 4    |              |                  |                      | Power                                 |                                   |       |       |       |
|------------------|----------|--------------|--------------|----------------------|-------|-----------|------------------|------------------|----------------------|----------|--------------|------------------|----------------------|----------|--------------|------------------|----------------------|----------|--------------|------------------|----------------------|----------|--------------|------------------|----------------------|---------------------------------------|-----------------------------------|-------|-------|-------|
|                  |          |              |              |                      |       |           |                  |                  |                      | SCC Band | SCC BW [MHz] | SCC [DL] Channel | SCC [DL] Freq. [MHz] | SCC Band | SCC BW [MHz] | SCC [DL] Channel | SCC [DL] Freq. [MHz] | SCC Band | SCC BW [MHz] | SCC [DL] Channel | SCC [DL] Freq. [MHz] | SCC Band | SCC BW [MHz] | SCC [DL] Channel | SCC [DL] Freq. [MHz] | LTE Tx Power with DL CA Enabled [dBm] | LTE Single Carrier Tx Power [dBm] |       |       |       |
| CA 7B            | LTE B7   | 15           | 28655        | 2627.5               | 64QAM | 1         | 74               | 2825             | 2627.5               | LTE B7   | 5            | 2818             | 2636.8               | -        | -            | -                | -                    | -        | -            | -                | -                    | -        | -            | -                | -                    | -                                     | -                                 | 14.87 | 14.87 |       |
| CA 5A-7A         | LTE B7   | 20           | 21350        | 2560                 | QPSK  | 1         | 0                | 3350             | 2680                 | LTE B5   | 10           | 2525             | 881.5                | -        | -            | -                | -                    | -        | -            | -                | -                    | -        | -            | -                | -                    | -                                     | -                                 | 14.16 | 14.57 |       |
| CA 7A-25A        | LTE B7   | 20           | 21350        | 2560                 | QPSK  | 1         | 0                | 3350             | 2680                 | LTE B26  | 10           | 8865             | 876.5                | -        | -            | -                | -                    | -        | -            | -                | -                    | -        | -            | -                | -                    | -                                     | -                                 | 14.58 | 14.57 |       |
| CA 7A-46A (1)    | LTE B7   | 20           | 21350        | 2560                 | QPSK  | 1         | 0                | 3350             | 2680                 | LTE B46  | 20           | 50065            | 5037.5               | -        | -            | -                | -                    | -        | -            | -                | -                    | -        | -            | -                | -                    | -                                     | -                                 | 14.13 | 14.57 |       |
| CA 4A-4A-7A (1)  | LTE B7   | 20           | 21350        | 2560                 | QPSK  | 1         | 0                | 3350             | 2680                 | LTE B4   | 20           | 2175             | 2132.5               | LTE B4   | 20           | 2350             | 2150                 | -        | -            | -                | -                    | -        | -            | -                | -                    | -                                     | -                                 | -     | 14.49 | 14.57 |
| CA 5A-7A-7A      | LTE B7   | 20           | 21350        | 2560                 | QPSK  | 1         | 0                | 3350             | 2680                 | LTE B7   | 20           | 2650             | 2630                 | LTE B5   | 10           | 2525             | 881.5                | -        | -            | -                | -                    | -        | -            | -                | -                    | -                                     | -                                 | -     | 14.15 | 14.57 |
| CA 5A-7C         | LTE B7   | 20           | 21350        | 2560                 | QPSK  | 1         | 0                | 3350             | 2680                 | LTE B7   | 20           | 2650             | 2630                 | LTE B5   | 10           | 2525             | 881.5                | -        | -            | -                | -                    | -        | -            | -                | -                    | -                                     | -                                 | -     | 14.58 | 14.57 |
| CA 7A-7A-25A     | LTE B7   | 20           | 21350        | 2560                 | QPSK  | 1         | 0                | 3350             | 2680                 | LTE B7   | 20           | 2650             | 2630                 | LTE B29  | 10           | 8865             | 876.5                | -        | -            | -                | -                    | -        | -            | -                | -                    | -                                     | -                                 | -     | 14.20 | 14.57 |
| CA 7A-46C (1)    | LTE B7   | 20           | 21350        | 2560                 | QPSK  | 1         | 0                | 3350             | 2680                 | LTE B46  | 20           | 50065            | 5037.5               | LTE B46  | 20           | 50067            | 5017.7               | -        | -            | -                | -                    | -        | -            | -                | -                    | -                                     | -                                 | -     | 14.48 | 14.57 |
| CA 7C-86A        | LTE B7   | 20           | 21350        | 2560                 | QPSK  | 1         | 0                | 3350             | 2680                 | LTE B7   | 20           | 3152             | 2660.2               | LTE B46  | 20           | 50065            | 5037.5               | -        | -            | -                | -                    | -        | -            | -                | -                    | -                                     | -                                 | -     | 14.18 | 14.57 |
| CA 7A-46D (1)    | LTE B7   | 20           | 21350        | 2560                 | QPSK  | 1         | 0                | 3350             | 2680                 | LTE B46  | 20           | 50065            | 5037.5               | LTE B46  | 20           | 50067            | 5017.7               | LTE B46  | 20           | 50063            | 5017.7               | -        | -            | -                | -                    | -                                     | -                                 | -     | 14.13 | 14.57 |
| CA 7C-86C        | LTE B7   | 20           | 21350        | 2560                 | QPSK  | 1         | 0                | 3350             | 2680                 | LTE B7   | 20           | 3152             | 2660.2               | LTE B46  | 20           | 50065            | 5037.5               | LTE B46  | 20           | 50067            | 5017.7               | -        | -            | -                | -                    | -                                     | -                                 | -     | 14.13 | 14.57 |
| CA 2A-4A-7A-7A   | LTE B7   | 20           | 21350        | 2560                 | QPSK  | 1         | 0                | 3350             | 2680                 | LTE B7   | 20           | 2650             | 2630                 | LTE B2   | 20           | 900              | 1960                 | LTE B4   | 20           | 2175             | 2132.5               | -        | -            | -                | -                    | -                                     | -                                 | -     | 14.47 | 14.57 |
| CA 2A-4A-7C      | LTE B7   | 20           | 21350        | 2560                 | QPSK  | 1         | 0                | 3350             | 2680                 | LTE B7   | 20           | 3152             | 2660.2               | LTE B2   | 20           | 900              | 1960                 | LTE B4   | 20           | 2175             | 2132.5               | -        | -            | -                | -                    | -                                     | -                                 | -     | 14.41 | 14.57 |
| CA 2A-4A-7A-12A  | LTE B7   | 20           | 21350        | 2560                 | QPSK  | 1         | 0                | 3350             | 2680                 | LTE B7   | 20           | 2650             | 2630                 | LTE B4   | 20           | 2175             | 2132.5               | LTE B4   | 20           | 2350             | 2150                 | -        | -            | -                | -                    | -                                     | -                                 | -     | 14.49 | 14.57 |
| CA 2A-7A-25A-56A | LTE B7   | 20           | 21350        | 2560                 | QPSK  | 1         | 0                | 3350             | 2680                 | LTE B7   | 20           | 2650             | 2630                 | LTE B2   | 20           | 900              | 1960                 | LTE B29  | 10           | 8870             | 876.5                | -        | -            | -                | -                    | -                                     | -                                 | -     | 14.17 | 14.57 |
| CA 2A-7A-46A-56A | LTE B7   | 20           | 21350        | 2560                 | QPSK  | 1         | 0                | 3350             | 2680                 | LTE B7   | 20           | 2650             | 2630                 | LTE B2   | 20           | 900              | 1960                 | LTE B46  | 20           | 50063            | 5017.7               | -        | -            | -                | -                    | -                                     | -                                 | -     | 14.49 | 14.57 |
| CA 7C-86D        | LTE B7   | 20           | 21350        | 2560                 | QPSK  | 1         | 0                | 3350             | 2680                 | LTE B7   | 20           | 3152             | 2660.2               | LTE B46  | 20           | 50065            | 5037.5               | LTE B46  | 20           | 50067            | 5017.7               | -        | -            | -                | -                    | -                                     | -                                 | -     | 14.30 | 14.57 |

## 1.3.11

## LTE Band 41 as PCC

Table 11  
Output Powers – Ant 4A

| Combination    | PCC Band | PCC BW [MHz] | PCC         |                     |      |           | PCC UL RB Offset | PCC (DL) Channel | PCC (DL) Freq [MHz] | SCC 1    |              |                  | SCC 2               |          |              | SCC 3            |                     |          | SCC 4        |                  |                     | LTE Tx Power with DL CA Enabled [dBm] | LTE Single Carrier Tx Power [dBm] |       |
|----------------|----------|--------------|-------------|---------------------|------|-----------|------------------|------------------|---------------------|----------|--------------|------------------|---------------------|----------|--------------|------------------|---------------------|----------|--------------|------------------|---------------------|---------------------------------------|-----------------------------------|-------|
|                |          |              | PCC (UL) Ch | PCC (UL) Freq [MHz] | Mod. | PCC UL RB |                  |                  |                     | SCC Band | SCC BW [MHz] | SCC (DL) Channel | SCC (DL) Freq [MHz] | SCC Band | SCC BW [MHz] | SCC (DL) Channel | SCC (DL) Freq [MHz] | SCC Band | SCC BW [MHz] | SCC (DL) Channel | SCC (DL) Freq [MHz] |                                       |                                   |       |
| CA 41A-41A (1) | LTE B41  | 20           | 39750       | 2506                | QPSK | 1         | 0                | 39750            | 2506                | LTE B41  | 20           | 41490            | 2680                | -        | -            | -                | -                   | -        | -            | -                | -                   | 16.82                                 | 16.80                             |       |
|                | LTE B41  | 20           | 39750       | 2506                | QPSK | 1         | 0                | 39750            | 2506                | LTE B5   | 10           | 25275            | 881.5               | -        | -            | -                | -                   | -        | -            | -                | -                   | 16.82                                 | 16.80                             |       |
|                | LTE B41  | 20           | 39750       | 2506                | QPSK | 1         | 0                | 39750            | 2506                | LTE B26  | 10           | 8895             | 876.5               | -        | -            | -                | -                   | -        | -            | -                | -                   | 16.82                                 | 16.80                             |       |
| CA 41A-41C     | LTE B41  | 20           | 39750       | 2506                | QPSK | 1         | 0                | 39750            | 2506                | LTE B41  | 20           | 41292            | 2660.2              | LTE B41  | 20           | 41490            | 2680                | -        | -            | -                | -                   | -                                     | 16.80                             | 16.80 |
|                | LTE B41  | 20           | 39750       | 2506                | QPSK | 1         | 0                | 39750            | 2506                | LTE B41  | 20           | 39948            | 2525.8              | LTE B41  | 20           | 41490            | 2680                | -        | -            | -                | -                   | -                                     | 16.80                             | 16.80 |
|                | LTE B41  | 20           | 39750       | 2506                | QPSK | 1         | 0                | 39750            | 2506                | LTE B26  | 20           | 8895             | 1862.5              | LTE B26  | 20           | 8890             | 1885                | -        | -            | -                | -                   | -                                     | 16.80                             | 16.80 |
| CA 26A-26A-41A | LTE B41  | 20           | 39750       | 2506                | QPSK | 1         | 0                | 39750            | 2506                | LTE B26  | 20           | 8895             | 1862.5              | LTE B26  | 20           | 8890             | 1885                | -        | -            | -                | -                   | -                                     | 16.80                             | 16.80 |
|                | LTE B41  | 20           | 39750       | 2506                | QPSK | 1         | 0                | 39750            | 2506                | LTE B41  | 20           | 39948            | 2525.8              | LTE B26  | 20           | 8895             | 1862.5              | -        | -            | -                | -                   | -                                     | 16.80                             | 16.80 |
|                | LTE B41  | 20           | 39750       | 2506                | QPSK | 1         | 0                | 39750            | 2506                | LTE B41  | 20           | 39948            | 2525.8              | LTE B26  | 10           | 8895             | 876.5               | -        | -            | -                | -                   | -                                     | 16.80                             | 16.80 |
| CA 26A-41C     | LTE B41  | 20           | 39750       | 2506                | QPSK | 1         | 0                | 39750            | 2506                | LTE B41  | 20           | 39948            | 2525.8              | LTE B41  | 20           | 40146            | 2545.6              | LTE B41  | 20           | 40344            | 2565.4              | -                                     | 16.72                             | 16.80 |
|                | LTE B41  | 20           | 39750       | 2506                | QPSK | 1         | 0                | 39750            | 2506                | LTE B41  | 20           | 39948            | 2525.8              | LTE B41  | 20           | 41292            | 2660.2              | LTE B41  | 20           | 41490            | 2680                | -                                     | 16.72                             | 16.80 |
|                | LTE B41  | 20           | 39750       | 2506                | QPSK | 1         | 0                | 39750            | 2506                | LTE B41  | 20           | 39948            | 2525.8              | LTE B41  | 20           | 40146            | 2545.6              | LTE B41  | 20           | 41490            | 2680                | -                                     | 16.72                             | 16.80 |
| CA 41D-41A     | LTE B41  | 20           | 39750       | 2506                | QPSK | 1         | 0                | 39750            | 2506                | LTE B41  | 20           | 39948            | 2525.8              | LTE B41  | 20           | 40146            | 2545.6              | LTE B41  | 20           | 41490            | 2680                | -                                     | 16.72                             | 16.80 |
|                | LTE B41  | 20           | 39750       | 2506                | QPSK | 1         | 0                | 39750            | 2506                | LTE B41  | 20           | 39948            | 2525.8              | LTE B41  | 20           | 41292            | 2660.2              | LTE B41  | 20           | 41490            | 2680                | -                                     | 16.77                             | 16.80 |
|                | LTE B41  | 20           | 39750       | 2506                | QPSK | 1         | 0                | 39750            | 2506                | LTE B41  | 20           | 39948            | 2525.8              | LTE B41  | 20           | 40146            | 2545.6              | LTE B41  | 20           | 41490            | 2680                | -                                     | 16.77                             | 16.80 |
| CA 26A-26A-41C | LTE B41  | 20           | 39750       | 2506                | QPSK | 1         | 0                | 39750            | 2506                | LTE B41  | 20           | 39948            | 2525.8              | LTE B26  | 20           | 8895             | 1862.5              | LTE B26  | 20           | 8890             | 1885                | -                                     | 16.80                             | 16.80 |
|                | LTE B41  | 20           | 39750       | 2506                | QPSK | 1         | 0                | 39750            | 2506                | LTE B41  | 20           | 39948            | 2525.8              | LTE B41  | 20           | 41292            | 2660.2              | LTE B41  | 20           | 41490            | 2680                | -                                     | 16.70                             | 16.80 |
|                | LTE B41  | 20           | 39750       | 2506                | QPSK | 1         | 0                | 39750            | 2506                | LTE B41  | 20           | 39948            | 2525.8              | LTE B41  | 20           | 40146            | 2545.6              | LTE B41  | 20           | 41490            | 2680                | -                                     | 16.74                             | 16.80 |
| CA 41C-41C     | LTE B41  | 20           | 39750       | 2506                | QPSK | 1         | 0                | 39750            | 2506                | LTE B41  | 20           | 39948            | 2525.8              | LTE B41  | 20           | 41292            | 2660.2              | LTE B41  | 20           | 41490            | 2680                | -                                     | 16.77                             | 16.80 |
|                | LTE B41  | 20           | 39750       | 2506                | QPSK | 1         | 0                | 39750            | 2506                | LTE B41  | 20           | 39948            | 2525.8              | LTE B41  | 20           | 41292            | 2660.2              | LTE B41  | 20           | 41490            | 2680                | -                                     | 16.77                             | 16.80 |
|                | LTE B41  | 20           | 39750       | 2506                | QPSK | 1         | 0                | 39750            | 2506                | LTE B41  | 20           | 39948            | 2525.8              | LTE B41  | 20           | 40146            | 2545.6              | LTE B26  | 20           | 8890             | 1885                | -                                     | 16.82                             | 16.80 |

## 1.3.12

## LTE Band 41 PC2 as PCC

Table 12  
Output Powers – Ant 4A

| Combination    | PCC Band    | PCC BW [MHz] | PCC         |                     |      |           |                  | SCC 1            |                     |             |              | SCC 2            |                     |             |              | SCC 3            |                     |             |              | SCC 4            |                     |          |              | Power            |                     |                                       |                                   |
|----------------|-------------|--------------|-------------|---------------------|------|-----------|------------------|------------------|---------------------|-------------|--------------|------------------|---------------------|-------------|--------------|------------------|---------------------|-------------|--------------|------------------|---------------------|----------|--------------|------------------|---------------------|---------------------------------------|-----------------------------------|
|                |             |              | PCC (UL) Ch | PCC (UL) Freq [MHz] | Mod. | PCC UL RB | PCC UL RB Offset | PCC (DL) Channel | PCC (DL) Freq [MHz] | SCC Band    | SCC BW [MHz] | SCC (DL) Channel | SCC (DL) Freq [MHz] | SCC Band    | SCC BW [MHz] | SCC (DL) Channel | SCC (DL) Freq [MHz] | SCC Band    | SCC BW [MHz] | SCC (DL) Channel | SCC (DL) Freq [MHz] | SCC Band | SCC BW [MHz] | SCC (DL) Channel | SCC (DL) Freq [MHz] | LTE Tx Power with DL CA Enabled [dBm] | LTE Single Carrier Tx Power [dBm] |
| CA 41A-41A (1) | LTE B41 PC2 | 20           | 39750       | 2506                | QPSK | 1         | 0                | 39750            | 2506                | LTE B41 PC2 | 20           | 41490            | 2680                | -           | -            | -                | -                   | -           | -            | -                | -                   | -        | -            | -                | -                   | 16.79                                 | 16.80                             |
| CA 5A-41A      | LTE B41 PC2 | 20           | 39750       | 2506                | QPSK | 1         | 0                | 39750            | 2506                | LTE B5      | 10           | 25275            | 881.5               | -           | -            | -                | -                   | -           | -            | -                | -                   | -        | -            | -                | -                   | 16.78                                 | 16.80                             |
| CA 26A-41A     | LTE B41 PC2 | 20           | 39750       | 2506                | QPSK | 1         | 0                | 39750            | 2506                | LTE B26     | 10           | 8895             | 876.5               | -           | -            | -                | -                   | -           | -            | -                | -                   | -        | -            | -                | -                   | 16.78                                 | 16.80                             |
| CA 41A-41C     | LTE B41 PC2 | 20           | 39750       | 2506                | QPSK | 1         | 0                | 39750            | 2506                | LTE B41 PC2 | 20           | 41292            | 2660.2              | LTE B41 PC2 | 20           | 41490            | 2680                | -           | -            | -                | -                   | -        | -            | -                | -                   | 16.79                                 | 16.80                             |
| CA 41C-41A     | LTE B41 PC2 | 20           | 39750       | 2506                | QPSK | 1         | 0                | 39750            | 2506                | LTE B41 PC2 | 20           | 39948            | 2525.8              | LTE B41 PC2 | 20           | 41490            | 2680                | -           | -            | -                | -                   | -        | -            | -                | -                   | 16.79                                 | 16.80                             |
| CA 26A-26A-41A | LTE B41 PC2 | 20           | 39750       | 2506                | QPSK | 1         | 0                | 39750            | 2506                | LTE B26     | 20           | 8895             | 1862.5              | LTE B26     | 20           | 8890             | 1885                | -           | -            | -                | -                   | -        | -            | -                | -                   | 16.80                                 | 16.80                             |
| CA 26A-41C     | LTE B41 PC2 | 20           | 39750       | 2506                | QPSK | 1         | 0                | 39750            | 2506                | LTE B41 PC2 | 20           | 39948            | 2525.8              | LTE B26     | 20           | 8895             | 1862.5              | -           | -            | -                | -                   | -        | -            | -                | -                   | 16.80                                 | 16.80                             |
| CA 26A-41C     | LTE B41 PC2 | 20           | 39750       | 2506                | QPSK | 1         | 0                | 39750            | 2506                | LTE B41 PC2 | 20           | 39948            | 2525.8              | LTE B26     | 10           | 8895             | 876.5               | -           | -            | -                | -                   | -        | -            | -                | -                   | 16.79                                 | 16.80                             |
| CA 41E         | LTE B41 PC2 | 20           | 39750       | 2506                | QPSK | 1         | 0                | 39750            | 2506                | LTE B41 PC2 | 20           | 39948            | 2525.8              | LTE B41 PC2 | 20           | 40146            | 2545.6              | LTE B41 PC2 | 20           | 40344            | 2565.4              | -        | -            | -                | -                   | 16.79                                 | 16.80                             |
| CA 41A-41D     | LTE B41 PC2 | 20           | 39750       | 2506                | QPSK | 1         | 0                | 39750            | 2506                | LTE B41 PC2 | 20           | 40344            | 2565.4              | LTE B41 PC2 | 20           | 41490            | 2680                | -           | -            | -                | -                   | -        | -            | -                | -                   | 16.79                                 | 16.80                             |
| CA 41D-41A     | LTE B41 PC2 | 20           | 39750       | 2506                | QPSK | 1         | 0                | 39750            | 2506                | LTE B41 PC2 | 20           | 39948            | 2525.8              | LTE B41 PC2 | 20           | 40146            | 2545.6              | LTE B41 PC2 | 20           | 41490            | 2680                | -        | -            | -                | -                   | 16.77                                 | 16.80                             |
| CA 41C-41C     | LTE B41 PC2 | 20           | 39750       | 2506                | QPSK | 1         | 0                | 39750            | 2506                | LTE B41 PC2 | 20           | 39948            | 2525.8              | LTE B41 PC2 | 20           | 41292            | 2660.2              | LTE B41 PC2 | 20           | 41490            | 2680                | -        | -            | -                | -                   | 16.79                                 | 16.80                             |
| CA 26A-26A-41C | LTE B41 PC2 | 20           | 39750       | 2506                | QPSK | 1         | 0                | 39750            | 2506                | LTE B41 PC2 | 20           | 39948            | 2525.8              | LTE B26     | 20           | 8895             | 1862.5              | LTE B26     | 20           | 8890             | 1885                | -        | -            | -                | -                   | 16.80                                 | 16.80                             |
| CA 41C-41D     | LTE B41 PC2 | 20           | 39750       | 2506                | QPSK | 1         | 0                | 39750            | 2506                | LTE B41 PC2 | 20           | 39948            | 2525.8              | LTE B41 PC2 | 20           | 40146            | 2545.6              | LTE B41 PC2 | 20           | 41292            | 2660.2              | -        | -            | -                | -                   | 16.74                                 | 16.80                             |
| CA 26A-26A-41D | LTE B41 PC2 | 20           | 39750       | 2506                | QPSK | 1         | 0                | 39750            | 2506                | LTE B41 PC2 | 20           | 39948            | 2525.8              | LTE B41 PC2 | 20           | 40146            | 2545.6              | LTE B26     | 20           | 8895             | 1885                | -        | -            | -                | -                   | 16.80                                 | 16.80                             |

## 1.3.13

## LTE Band 48 as PCC

Table 13  
Output Powers – Ant 3

| Combination       | PCC Band | PCC BW [MHz] | PCC         |                      |      |           | PCC UL RB Offset | PCC (DL) Channel | PCC (DL) Freq. [MHz] | SCC 1    |              |                  | SCC 2                |          |              | SCC 3            |                      |          | SCC 4        |                  |                      | SCC 5    |              |                  | LTE Tx Power (dBm) | LTE Single Carrier Power (dBm) |
|-------------------|----------|--------------|-------------|----------------------|------|-----------|------------------|------------------|----------------------|----------|--------------|------------------|----------------------|----------|--------------|------------------|----------------------|----------|--------------|------------------|----------------------|----------|--------------|------------------|--------------------|--------------------------------|
|                   |          |              | PCC (UL) Ch | PCC (UL) Freq. [MHz] | Mod. | PCC UL RB |                  |                  |                      | SCC Band | SCC BW [MHz] | SCC (DL) Channel | SCC (DL) Freq. [MHz] | SCC Band | SCC BW [MHz] | SCC (DL) Channel | SCC (DL) Freq. [MHz] | SCC Band | SCC BW [MHz] | SCC (DL) Channel | SCC (DL) Freq. [MHz] | SCC Band | SCC BW [MHz] | SCC (DL) Channel |                    |                                |
| CA 5A-48A         | LTE B48  | 20           | 55770       | 3603.3               | QPSK | 1         | 0                | 55770            | 3603.3               | LTE B5   | 10           | 2520             | 880.5                | -        | -            | -                | -                    | -        | -            | -                | -                    | -        | -            | 17.14            | 17.40              |                                |
| CA 2A-48A-48A     | LTE B48  | 20           | 55770       | 3603.3               | QPSK | 1         | 0                | 55770            | 3603.3               | LTE B48  | 20           | 56840            | 3680                 | LTE B2   | 20           | 880              | 1880                 | -        | -            | -                | -                    | -        | -            | 17.12            | 17.40              |                                |
| CA 2A-48A         | LTE B48  | 20           | 55770       | 3603.3               | QPSK | 1         | 0                | 55770            | 3603.3               | LTE B48  | 20           | 56840            | 3680                 | LTE B48  | 20           | 56840            | 3680                 | -        | -            | -                | -                    | -        | -            | 17.12            | 17.40              |                                |
| CA 5A-48A-48A-48A | LTE B48  | 20           | 55770       | 3603.3               | QPSK | 1         | 0                | 55770            | 3603.3               | LTE B48  | 20           | 56840            | 3680                 | LTE B48  | 20           | 56840            | 3680                 | -        | -            | -                | -                    | -        | -            | 17.12            | 17.40              |                                |
| CA 5A-48A-48A     | LTE B48  | 20           | 55770       | 3603.3               | QPSK | 1         | 0                | 55770            | 3603.3               | LTE B48  | 20           | 56840            | 3680                 | LTE B48  | 20           | 56840            | 3680                 | -        | -            | -                | -                    | -        | -            | 17.12            | 17.40              |                                |
| CA 48A-48A-48A    | LTE B48  | 20           | 55770       | 3603.3               | QPSK | 1         | 0                | 55770            | 3603.3               | LTE B48  | 20           | 56840            | 3680                 | LTE B48  | 20           | 56840            | 3680                 | -        | -            | -                | -                    | -        | -            | 17.12            | 17.40              |                                |
| CA 48A-48A        | LTE B48  | 20           | 55770       | 3603.3               | QPSK | 1         | 0                | 55770            | 3603.3               | LTE B48  | 20           | 56840            | 3680                 | LTE B48  | 20           | 56840            | 3680                 | -        | -            | -                | -                    | -        | -            | 17.12            | 17.40              |                                |
| CA 48C-48A-48A    | LTE B48  | 20           | 55770       | 3603.3               | QPSK | 1         | 0                | 55770            | 3603.3               | LTE B48  | 20           | 56840            | 3680                 | LTE B48  | 20           | 56840            | 3680                 | -        | -            | -                | -                    | -        | -            | 17.12            | 17.40              |                                |
| CA 48C-48A        | LTE B48  | 20           | 55770       | 3603.3               | QPSK | 1         | 0                | 55770            | 3603.3               | LTE B48  | 20           | 56840            | 3680                 | LTE B48  | 20           | 56840            | 3680                 | -        | -            | -                | -                    | -        | -            | 17.12            | 17.40              |                                |
| CA 13A-48A-48A    | LTE B48  | 20           | 55770       | 3603.3               | QPSK | 1         | 0                | 55770            | 3603.3               | LTE B48  | 20           | 56840            | 3680                 | LTE B48  | 20           | 56840            | 3680                 | -        | -            | -                | -                    | -        | -            | 17.12            | 17.40              |                                |
| CA 2A-48A-48A     | LTE B48  | 20           | 55770       | 3603.3               | QPSK | 1         | 0                | 55770            | 3603.3               | LTE B2   | 20           | 880              | 1880                 | LTE B48  | 20           | 56840            | 3680                 | -        | -            | -                | -                    | -        | -            | 17.12            | 17.40              |                                |
| CA 2A-48A         | LTE B48  | 20           | 55770       | 3603.3               | QPSK | 1         | 0                | 55770            | 3603.3               | LTE B48  | 20           | 56840            | 3680                 | LTE B48  | 20           | 56840            | 3680                 | -        | -            | -                | -                    | -        | -            | 17.12            | 17.40              |                                |
| CA 5A-48A-48A     | LTE B48  | 20           | 55770       | 3603.3               | QPSK | 1         | 0                | 55770            | 3603.3               | LTE B48  | 20           | 56840            | 3680                 | LTE B48  | 20           | 56840            | 3680                 | -        | -            | -                | -                    | -        | -            | 17.12            | 17.40              |                                |
| CA 48C-48A        | LTE B48  | 20           | 55770       | 3603.3               | QPSK | 1         | 0                | 55770            | 3603.3               | LTE B48  | 20           | 56840            | 3680                 | LTE B48  | 20           | 56840            | 3680                 | -        | -            | -                | -                    | -        | -            | 17.12            | 17.40              |                                |
| CA 2A-48A-48A-48A | LTE B48  | 20           | 55770       | 3603.3               | QPSK | 1         | 0                | 55770            | 3603.3               | LTE B48  | 20           | 56840            | 3680                 | LTE B48  | 20           | 56840            | 3680                 | -        | -            | -                | -                    | -        | -            | 17.12            | 17.40              |                                |
| CA 2A-48A-48A     | LTE B48  | 20           | 55770       | 3603.3               | QPSK | 1         | 0                | 55770            | 3603.3               | LTE B2   | 20           | 880              | 1880                 | LTE B48  | 20           | 56840            | 3680                 | -        | -            | -                | -                    | -        | -            | 17.12            | 17.40              |                                |

## 1.4 DL CA with DL 4x4 MIMO RF Conduction Powers

This device supports downlink 4x4 MIMO operations for some LTE bands. Uplink transmission is limited to a single output stream. When carrier aggregation was applicable, the general test selection and setup procedures described in Section 1.2 were applied.

Per May 2017 TCB Workshop Notes, SAR for 4x4 DL MIMO was not needed since the maximum average output power in 4x4 DL MIMO mode was not more than 0.25 dB higher than the maximum output power with 4x4 DL MIMO inactive. Additionally, SAR for 4x4 MIMO Downlink Carrier Aggregation was not needed since the maximum average output power in 4x4 MIMO Downlink Carrier Aggregation mode was not more than 0.25 dB higher than the maximum output power with 4x4 MIMO Downlink and downlink carrier aggregation inactive.

### 1.4.1 LTE 4x4 MIMO DL Standalone Powers

Table 14  
Output Powers – Ant 3

| LTE Band | Bandwidth [MHz] | Channel | Frequency [MHz] | Modulation | RB Size | RB Offset | 4x4 DL MIMO Tx. Power [dBm] | Single Antenna Tx. Power [dBm] | Max Allowed Power [dBm] |
|----------|-----------------|---------|-----------------|------------|---------|-----------|-----------------------------|--------------------------------|-------------------------|
| 48       | 20              | 55773   | 3603.3          | 64QAM      | 1       | 99        | 17.46                       | 17.44                          | 17.50                   |

Table 15  
Output Powers – Ant 2A

| LTE Band | Bandwidth [MHz] | Channel | Frequency [MHz] | Modulation | RB Size | RB Offset | 4x4 DL MIMO Tx. Power [dBm] | Single Antenna Tx. Power [dBm] | Max Allowed Power [dBm] |
|----------|-----------------|---------|-----------------|------------|---------|-----------|-----------------------------|--------------------------------|-------------------------|
| 25       | 20              | 26140   | 1860            | 64QAM      | 1       | 99        | 15.00                       | 15.00                          | 15.00                   |
| 30       | 10              | 27710   | 2310            | 16QAM      | 1       | 25        | 13.61                       | 13.60                          | 14.00                   |

Table 16  
Output Powers – Ant 2B

| LTE Band | Bandwidth [MHz] | Channel | Frequency [MHz] | Modulation | RB Size | RB Offset | 4x4 DL MIMO Tx. Power [dBm] | Single Antenna Tx. Power [dBm] | Max Allowed Power [dBm] |
|----------|-----------------|---------|-----------------|------------|---------|-----------|-----------------------------|--------------------------------|-------------------------|
| 66       | 20              | 132322  | 1745            | 64QAM      | 1       | 0         | 15.04                       | 15.05                          | 15.10                   |

|                                     |                                                                                                                                 |                       |                                 |
|-------------------------------------|---------------------------------------------------------------------------------------------------------------------------------|-----------------------|---------------------------------|
| FCC ID: BCGA2069                    |  <b>PCTEST</b><br>Ready to test your product | SAR EVALUATION REPORT | Reviewed by:<br>Quality Manager |
| Test Dates:<br>12/18/2019-1/28/2020 | DUT Type:<br>Tablet Device                                                                                                      |                       | APPENDIX F:<br>Page 9 of 16     |

**Table 17**  
**Output Powers – Ant 4A**

| LTE Band | Bandwidth [MHz] | Channel | Frequency [MHz] | Modulation | RB Size | RB Offset | 4x4 DL MIMO Tx. Power [dBm] | Single Antenna Tx. Power [dBm] | Max Allowed Power [dBm] |
|----------|-----------------|---------|-----------------|------------|---------|-----------|-----------------------------|--------------------------------|-------------------------|
| 7        | 20              | 21350   | 2560            | QPSK       | 1       | 0         | 14.59                       | 14.57                          | 14.60                   |
| 41       | 20              | 39750   | 2506            | QPSK       | 1       | 0         | 16.90                       | 16.90                          | 16.90                   |
| 41 PC2   | 20              | 39750   | 2506            | QPSK       | 1       | 0         | 16.90                       | 16.90                          | 16.90                   |

### 1.4.2

### LTE Band 71 as PCC

**Table 18**  
**Output Powers – Ant 3**

| Combination           | PCC Band | PCC BW [MHz] | PCC [UL] Ch. | PCC [DL] Freq. [MHz] | Mod. | PCC       |                  |              |                      | DL Ant. Config. | SCC 1    |              |              |                      | DL Ant. Config. | SCC 2    |              |              |                      | DL Ant. Config. | SCC 3    |              |              |                      | DL Ant. Config. | SCC 4    |              |              |                      | DL Ant. Config. | Power                                 |                                   |
|-----------------------|----------|--------------|--------------|----------------------|------|-----------|------------------|--------------|----------------------|-----------------|----------|--------------|--------------|----------------------|-----------------|----------|--------------|--------------|----------------------|-----------------|----------|--------------|--------------|----------------------|-----------------|----------|--------------|--------------|----------------------|-----------------|---------------------------------------|-----------------------------------|
|                       |          |              |              |                      |      | PCC UL RB | PCC UL RB Offset | PCC [DL] Ch. | PCC [DL] Freq. [MHz] |                 | SCC Band | SCC BW [MHz] | SCC [DL] Ch. | SCC [DL] Freq. [MHz] |                 | SCC Band | SCC BW [MHz] | SCC [DL] Ch. | SCC [DL] Freq. [MHz] |                 | SCC Band | SCC BW [MHz] | SCC [DL] Ch. | SCC [DL] Freq. [MHz] |                 | SCC Band | SCC BW [MHz] | SCC [DL] Ch. | SCC [DL] Freq. [MHz] |                 | LTE Tx Power with DL CA Enabled [dBm] | LTE Single Carrier Tx Power [dBm] |
| CA [14A][4A]-71A      | LTE B71  | 20           | 133297       | 680.5                | QPSK | 1         | 0                | 68761        | 634.5                | 2x2             | LTE B4   | 20           | 2175         | 2132.5               | 4x4             | LTE B4   | 10           | 2350         | 2150                 | 4x4             | -        | -            | -            | -                    | -               | -        | -            | -            | -                    | -               | 23.00                                 | 23.00                             |
| CA [2A][4A]-71A       | LTE B71  | 20           | 133297       | 680.5                | QPSK | 1         | 0                | 68761        | 634.5                | 2x2             | LTE B2   | 20           | 900          | 1960                 | 4x4             | LTE B4   | 20           | 2175         | 2132.5               | 4x4             | -        | -            | -            | -                    | -               | -        | -            | -            | -                    | -               | 23.00                                 | 23.00                             |
| CA [2A][2A]-106A-71A  | LTE B71  | 20           | 133297       | 680.5                | QPSK | 1         | 0                | 68761        | 634.5                | 2x2             | LTE B2   | 20           | 900          | 1960                 | 4x4             | LTE B2   | 20           | 700          | 1940                 | 4x4             | LTE B06  | 20           | 66786        | 2145                 | 4x4             | LTE B06  | 20           | 66786        | 2145                 | 4x4             | 23.00                                 | 23.00                             |
| CA [2A][10A][66A]-71A | LTE B71  | 20           | 133297       | 680.5                | QPSK | 1         | 0                | 68761        | 634.5                | 2x2             | LTE B2   | 20           | 900          | 1960                 | 4x4             | LTE B06  | 20           | 66786        | 2145                 | 4x4             | LTE B06  | 20           | 67236        | 2130                 | 4x4             | LTE B06  | 20           | 67236        | 2130                 | 4x4             | 23.00                                 | 23.00                             |
| CA [2A][10A][66A]-71A | LTE B71  | 20           | 133297       | 680.5                | QPSK | 1         | 0                | 68761        | 634.5                | 2x2             | LTE B2   | 20           | 900          | 1960                 | 4x4             | LTE B06  | 20           | 66786        | 2145                 | 4x4             | LTE B06  | 20           | 66984        | 2164.8               | 4x4             | LTE B06  | 20           | 66984        | 2164.8               | 4x4             | 22.99                                 | 23.00                             |

### 1.4.3

### LTE Band 12 as PCC

**Table 19**  
**Output Powers – Ant 3**

| Combination           | PCC Band | PCC BW [MHz] | PCC [UL] Ch. | PCC [DL] Freq. [MHz] | Mod.  | PCC       |                  |              |                      | DL Ant. Config. | SCC 1    |              |              |                      | DL Ant. Config. | SCC 2    |              |              |                      | DL Ant. Config. | SCC 3    |              |              |                      | DL Ant. Config. | SCC 4    |              |              |                      | DL Ant. Config. | Power                                 |                                   |       |
|-----------------------|----------|--------------|--------------|----------------------|-------|-----------|------------------|--------------|----------------------|-----------------|----------|--------------|--------------|----------------------|-----------------|----------|--------------|--------------|----------------------|-----------------|----------|--------------|--------------|----------------------|-----------------|----------|--------------|--------------|----------------------|-----------------|---------------------------------------|-----------------------------------|-------|
|                       |          |              |              |                      |       | PCC UL RB | PCC UL RB Offset | PCC [DL] Ch. | PCC [DL] Freq. [MHz] |                 | SCC Band | SCC BW [MHz] | SCC [DL] Ch. | SCC [DL] Freq. [MHz] |                 | SCC Band | SCC BW [MHz] | SCC [DL] Ch. | SCC [DL] Freq. [MHz] |                 | SCC Band | SCC BW [MHz] | SCC [DL] Ch. | SCC [DL] Freq. [MHz] |                 | SCC Band | SCC BW [MHz] | SCC [DL] Ch. | SCC [DL] Freq. [MHz] |                 | LTE Tx Power with DL CA Enabled [dBm] | LTE Single Carrier Tx Power [dBm] |       |
| CA [2A][12A]-12       | LTE B12  | 5            | 23155        | 743.5                | 64QAM | 1         | 24               | 5155         | 743.5                | 2x2             | LTE B2   | 20           | 900          | 1960                 | 4x4             | -        | -            | -            | -                    | -               | -        | -            | -            | -                    | -               | -        | -            | -            | -                    | -               | 23.00                                 | 23.00                             |       |
| CA [4A][12A]-12       | LTE B12  | 5            | 23155        | 743.5                | 64QAM | 1         | 24               | 5155         | 743.5                | 2x2             | LTE B2   | 20           | 2175         | 2132.5               | 4x4             | -        | -            | -            | -                    | -               | -        | -            | -            | -                    | -               | -        | -            | -            | -                    | -               | 21.67                                 | 21.77                             |       |
| CA [14A][12A]-12      | LTE B12  | 5            | 23155        | 743.5                | 64QAM | 1         | 24               | 5155         | 743.5                | 2x2             | LTE B4   | 20           | 2175         | 2132.5               | 4x4             | -        | -            | -            | -                    | -               | -        | -            | -            | -                    | -               | -        | -            | -            | -                    | -               | 21.67                                 | 21.77                             |       |
| CA [12A][2A]-12       | LTE B12  | 5            | 23155        | 743.5                | 64QAM | 1         | 24               | 5155         | 743.5                | 2x2             | LTE B06  | 20           | 66786        | 2145                 | 4x4             | -        | -            | -            | -                    | -               | -        | -            | -            | -                    | -               | -        | -            | -            | -                    | -               | 21.67                                 | 21.77                             |       |
| CA [12A][2A]-12B      | LTE B12  | 5            | 23155        | 743.5                | 64QAM | 1         | 24               | 5155         | 743.5                | 2x2             | LTE B06  | 20           | 66786        | 2145                 | 4x4             | -        | -            | -            | -                    | -               | -        | -            | -            | -                    | -               | -        | -            | -            | -                    | -               | 21.67                                 | 21.77                             |       |
| CA [2A][12A][66A]-12  | LTE B12  | 5            | 23155        | 743.5                | 64QAM | 1         | 24               | 5155         | 743.5                | 2x2             | LTE B2   | 20           | 900          | 1960                 | 4x4             | LTE B2   | 20           | 700          | 1940                 | 4x4             | LTE B4   | 20           | 2175         | 2132.5               | 4x4             | -        | -            | -            | -                    | -               | -                                     | 21.67                             | 21.77 |
| CA [2A][12A][66A]-12A | LTE B12  | 5            | 23155        | 743.5                | 64QAM | 1         | 24               | 5155         | 743.5                | 2x2             | LTE B2   | 20           | 900          | 1960                 | 4x4             | LTE B2   | 20           | 700          | 1940                 | 4x4             | LTE B4   | 20           | 2175         | 2132.5               | 4x4             | -        | -            | -            | -                    | -               | -                                     | 21.67                             | 21.77 |
| CA [2A][12A][66A]-12B | LTE B12  | 5            | 23155        | 743.5                | 64QAM | 1         | 24               | 5155         | 743.5                | 2x2             | LTE B2   | 20           | 900          | 1960                 | 4x4             | LTE B2   | 20           | 700          | 1940                 | 4x4             | LTE B4   | 20           | 2175         | 2132.5               | 4x4             | -        | -            | -            | -                    | -               | -                                     | 21.67                             | 21.77 |
| CA [2A][12A][66A]-12A | LTE B12  | 5            | 23155        | 743.5                | 64QAM | 1         | 24               | 5155         | 743.5                | 2x2             | LTE B2   | 20           | 900          | 1960                 | 4x4             | LTE B2   | 20           | 700          | 1940                 | 4x4             | LTE B4   | 20           | 2175         | 2132.5               | 4x4             | -        | -            | -            | -                    | -               | -                                     | 21.67                             | 21.77 |
| CA [2A][12A][66A]-12B | LTE B12  | 5            | 23155        | 743.5                | 64QAM | 1         | 24               | 5155         | 743.5                | 2x2             | LTE B2   | 20           | 900          | 1960                 | 4x4             | LTE B2   | 20           | 700          | 1940                 | 4x4             | LTE B4   | 20           | 2175         | 2132.5               | 4x4             | -        | -            | -            | -                    | -               | -                                     | 21.67                             | 21.77 |
| CA [2A][12A][66A]-12A | LTE B12  | 5            | 23155        | 743.5                | 64QAM | 1         | 24               | 5155         | 743.5                | 2x2             | LTE B2   | 20           | 900          | 1960                 | 4x4             | LTE B2   | 20           | 700          | 1940                 | 4x4             | LTE B4   | 20           | 2175         | 2132.5               | 4x4             | -        | -            | -            | -                    | -               | -                                     | 21.67                             | 21.77 |
| CA [2A][12A][66A]-12B | LTE B12  | 5            | 23155        | 743.5                | 64QAM | 1         | 24               | 5155         | 743.5                | 2x2             | LTE B2   | 20           | 900          | 1960                 | 4x4             | LTE B2   | 20           | 700          | 1940                 | 4x4             | LTE B4   | 20           | 2175         | 2132.5               | 4x4             | -        | -            | -            | -                    | -               | -                                     | 21.67                             | 21.77 |
| CA [2A][12A][66A]-12A | LTE B12  | 5            | 23155        | 743.5                | 64QAM | 1         | 24               | 5155         | 743.5                | 2x2             | LTE B2   | 20           | 900          | 1960                 | 4x4             | LTE B2   | 20           | 700          | 1940                 | 4x4             | LTE B4   | 20           | 2175         | 2132.5               | 4x4             | -        | -            | -            | -                    | -               | -                                     | 21.67                             | 21.77 |
| CA [2A][12A][66A]-12B | LTE B12  | 5            | 23155        | 743.5                | 64QAM | 1         | 24               | 5155         | 743.5                | 2x2             | LTE B2   | 20           | 900          | 1960                 | 4x4             | LTE B2   | 20           | 700          | 1940                 | 4x4             | LTE B4   | 20           | 2175         | 2132.5               | 4x4             | -        | -            | -            | -                    | -               | -                                     | 21.67                             | 21.77 |
| CA [2A][12A][66A]-12A | LTE B12  | 5            | 23155        | 743.5                | 64QAM | 1         | 24               | 5155         | 743.5                | 2x2             | LTE B2   | 20           | 900          | 1960                 | 4x4             | LTE B2   | 20           | 700          | 1940                 | 4x4             | LTE B4   | 20           | 2175         | 2132.5               | 4x4             | -        | -            | -            | -                    | -               | -                                     | 21.67                             | 21.77 |
| CA [2A][12A][66A]-12B | LTE B12  | 5            | 23155        | 743.5                | 64QAM | 1         | 24               | 5155         | 743.5                | 2x2             | LTE B2   | 20           | 900          | 1960                 | 4x4             | LTE B2   | 20           | 700          | 1940                 | 4x4             | LTE B4   | 20           | 2175         | 2132.5               | 4x4             | -        | -            | -            | -                    | -               | -                                     | 21.67                             | 21.77 |
| CA [2A][12A][66A]-12A | LTE B12  | 5            | 23155        | 743.5                | 64QAM | 1         | 24               | 5155         | 743.5                | 2x2             | LTE B2   | 20           | 900          | 1960                 | 4x4             | LTE B2   | 20           | 700          | 1940                 | 4x4             | LTE B4   | 20           | 2175         | 2132.5               | 4x4             | -        | -            | -            | -                    | -               | -                                     | 21.67                             | 21.77 |
| CA [2A][12A][66A]-12B | LTE B12  | 5            | 23155        | 743.5                | 64QAM | 1         | 24               | 5155         | 743.5                | 2x2             | LTE B2   | 20           | 900          | 1960                 | 4x4             | LTE B2   | 20           | 700          | 1940                 | 4x4             | LTE B4   | 20           | 2175         | 2132.5               | 4x4             | -        | -            | -            | -                    | -               | -                                     | 21.67                             | 21.77 |
| CA [2A][12A][66A]-12A | LTE B12  | 5            | 23155        | 743.5                | 64QAM | 1         | 24               | 5155         | 743.5                | 2x2             | LTE B2   | 20           | 900          | 1960                 | 4x4             | LTE B2   | 20           | 700          | 1940                 | 4x4             | LTE B4   | 20           | 2175         | 2132.5               | 4x4             | -        | -            | -            | -                    | -               | -                                     | 21.67                             | 21.77 |
| CA [2A][12A][66A]-12B | LTE B12  | 5            | 23155        | 743.5                | 64QAM | 1         | 24               | 5155         | 743.5                | 2x2             | LTE B2   | 20           | 900          | 1960                 | 4x4             | LTE B2   | 20           | 700          | 1940                 | 4x4             | LTE B4   | 20           | 2175         | 2132.5               | 4x4             | -        | -            | -            | -                    | -               | -                                     | 21.67                             | 21.77 |
| CA [2A][12A][66A]-12A | LTE B12  | 5            | 23155        | 743.5                | 64QAM | 1         | 24               | 5155         | 743.5                | 2x2             | LTE B2   | 20           | 900          | 1960                 | 4x4             | LTE B2   | 20           | 700          | 1940                 | 4x4             | LTE B4   | 20           | 2175         | 2132.5               | 4x4             | -        | -            | -            | -                    | -               | -                                     | 21.67                             | 21.77 |
| CA [2A][12A][66A]-12B | LTE B12  | 5            | 23155        | 743.5                | 64QAM | 1         | 24               | 5155         | 743.5                | 2x2             | LTE B2   | 20           | 900          | 1960                 | 4x4             | LTE B2   | 20           | 700          | 1940                 | 4x4             | LTE B4   | 20           | 2175         | 2132.5               | 4x4             | -        | -            | -            | -                    | -               | -                                     | 21.67                             | 21.77 |
| CA [2A][12A][66A]-12A | LTE B12  | 5            | 23155        | 743.5                | 64QAM | 1         | 24               | 5155         | 743.5                | 2x2             | LTE B2   | 20           | 900          | 1960                 | 4x4             | LTE B2   | 20           | 700          | 1940                 | 4x4             | LTE B4   | 20           | 2175         | 2132.5               | 4x4             | -        | -            | -            | -                    | -               | -                                     | 21.67                             | 21.77 |
| CA [2A][12A][66A]-12B | LTE B12  | 5            | 23155        | 743.5                | 64QAM | 1         | 24               | 5155         | 743.5                | 2x2             | LTE B2   | 20           | 900          | 1960                 | 4x4             | LTE B2   | 20           | 700          | 1940                 | 4x4             | LTE B4   | 20           | 2175         | 2132.5               | 4x4             | -        | -            | -            | -                    | -               | -                                     | 21.67                             | 21.77 |
| CA [2A][12A][66A]-12A | LTE B12  | 5            | 23155        | 743.5                | 64QAM | 1         | 24               | 5155         | 743.5                | 2x2             | LTE B2   | 20           | 900          | 1960                 | 4x4             | LTE B2   | 20           | 700          | 1940                 | 4x4             | LTE B4   | 20           | 2175         | 2132.5               | 4x4             | -        | -            | -            | -                    | -               | -                                     | 21.67                             | 21.77 |
| CA [2A][12A][66A]-12B | LTE B12  | 5            | 23155        | 743.5                | 64QAM | 1         | 24               | 5155         | 743.5                | 2x2             | LTE B2   | 20           | 900          | 1960                 | 4x4             | LTE B2   | 20           | 700          | 1940                 | 4x4             | LTE B4   | 20           | 2175         | 2132.5               | 4x4             | -        | -            | -            | -                    | -               | -                                     | 21.67                             | 21.77 |
| CA [2A][12A][66A]-12A | LTE B12  | 5            | 23155        | 743.5                | 64QAM | 1         | 24               | 5155         | 743.5                | 2x2             | LTE B2   | 20           | 900          | 1960                 | 4x4             | LTE B2   | 20           | 700          | 1940                 | 4x4             | LTE B4   | 20           | 2175         | 2132.5               | 4x4             | -        | -            | -            | -                    | -               | -                                     | 21.67                             | 21.77 |
| CA [2A][12A][66A]-12B | LTE B12  | 5            | 23155        | 743.5                | 64QAM | 1         | 24               | 5155         | 743.5                | 2x2             | LTE B2   | 20           | 900          | 1960                 | 4x4             | LTE B2   | 20           | 700          | 1940                 | 4x4             | LTE B4   | 20           | 2175         | 2132.5               | 4x4             | -        | -            | -            | -                    | -               | -                                     | 21.67                             | 21.77 |
| CA [2A][12A][66A]-12A | LTE B12  | 5            | 23155        | 743.5                | 64QAM | 1         | 24               | 5155         | 743.5                | 2x2             | LTE B2   | 20           | 900          | 1960                 | 4x4             | LTE B2   | 20           | 700          | 1940                 | 4x4             | LTE B4   | 20           | 2175         | 2132.5               | 4x4             | -        | -            | -            | -                    | -               | -                                     | 21.67                             | 21.77 |
| CA [2A][12A][66A]-12B | LTE B12  | 5            | 23155        | 743.5                | 64QAM | 1         | 24               | 5155         | 743.5                | 2x2             | LTE B2   | 20           | 900          | 1960                 | 4x4             | LTE B2   | 20           | 700          | 1940                 | 4x4             | LTE B4   | 20           | 2175         | 2132.5               | 4x4             | -        | -            | -            | -                    | -               | -                                     | 21.67                             | 21.77 |
| CA [2A][12A][66A]-12A | LTE B12  | 5            | 23155        | 743.5                | 64QAM | 1         | 24               | 5155         | 743.5                | 2x2             | LTE B2   | 20           | 900          | 1960                 | 4x4             | LTE B2   | 20           | 700          | 1940                 | 4x4             | LTE B4   | 20           | 2175         | 2132.5               | 4x4             | -        | -            | -            | -                    | -               | -                                     | 21.67                             | 21.77 |
| CA [2A][12A][66A]-12B | LTE B12  | 5            | 23155        | 743.5                | 64QAM | 1         | 24               | 5155         | 743.5                | 2x2             | LTE B2   | 20           | 900          | 1960                 | 4x4             | LTE B2   | 20           | 700          | 1940                 | 4x4             | LTE B4   | 20           | 2175         | 2132.5               | 4x4             | -        | -            | -            | -                    | -               | -                                     | 21.67                             | 21.77 |
| CA [2A][12A][66A]-12A | LTE B12  | 5            | 23155        | 743.5                | 64QAM | 1         | 24               | 5155         | 743.5                | 2x2             | LTE B2   | 20           | 900          | 1960                 | 4x4             | LTE B2   | 20           | 700          | 1940                 | 4x4             | LTE B4   | 20           | 2175         | 2132.5               | 4x4             | -        | -            | -            | -                    | -               | -                                     | 21.67                             | 21.77 |
| CA [2A][12A][66A]-12B | LTE B12  | 5            | 23155        | 743.5                | 64QAM | 1         | 24               | 5155         | 743.5                | 2x2             | LTE B2   | 20           | 900          | 1960                 | 4x4             | LTE B2   | 20           | 700          | 1940                 | 4x4             | LTE B4   | 20           | 2175         | 2132.5               | 4x4             | -        | -            | -            | -                    | -               | -                                     | 21.67                             | 21.77 |
| CA [2A][12A][66A]-12A | LTE B12  | 5            | 23155        | 743.5                | 64QAM | 1         | 24               | 5155         | 743.5                | 2x2             | LTE B2   | 20           | 900          | 1960                 | 4x4             | LTE B2   | 20           | 700          | 1940                 | 4x4             | LTE B4   | 20           | 2175         | 2132.5               | 4x4             | -        | -            | -            | -                    | -               | -                                     | 21.67                             | 21.77 |
| CA [2A][12A][66A]-12B | LTE B12  | 5            | 23155        | 743.5                | 64QAM | 1         | 24               | 5155         | 743.5                | 2x2             | LTE B2   | 20           | 900          | 1960                 | 4x4             | LTE B2   | 20           | 700          | 1940                 | 4x4             | LTE B4   | 20           | 2175         | 2132.5               | 4x4             | -        | -            | -            | -                    | -               | -                                     | 21.67                             | 21.77 |
| CA [2A][12A][66A]-12A | LTE B12  | 5            | 23155        | 743.5                | 64QAM | 1         | 24               | 5155         | 743.5                | 2x2             | LTE B2   | 20           | 900          | 1960                 | 4x4             | LTE B2   | 20           | 700          | 1940                 | 4x4             | LTE B4   | 20           | 2175         | 2132.5               | 4x4             | -        | -            | -            | -                    | -               | -                                     | 21.67                             | 21.77 |
| CA [2A][12A][66A]-12B | LTE B12  | 5            | 23155        | 743.5                | 64QAM | 1         | 24               | 5155         | 743.5                | 2x2             | LTE B2   | 20           | 900          | 1960                 | 4x4             | LTE B2   | 20           | 700          | 1940                 | 4x4             | LTE B4   | 20           | 2175         | 2132.5               | 4x4             | -        | -            | -            | -                    | -               | -                                     | 21.67                             | 21.77 |
| CA [2A][12A][66A]-12A | LTE B12  | 5            | 23155        | 743.5                | 64QAM | 1         | 24               | 5155         | 743.5                | 2x2             | LTE B2   | 20           | 900          | 1960                 | 4x4             | LTE B2   | 20           | 700          | 1940                 | 4x4             | LTE B4   | 20           | 2175         | 2132.5               | 4x4             | -        | -            | -            | -                    | -               | -                                     | 21.67                             | 21.77 |
| CA [2A][12A][66A]-12B | LTE B12  | 5            | 23155        | 743.5                | 64QAM | 1         | 24               | 5155         | 743.5                | 2x2             | LTE B2   | 20           | 900          | 1960                 | 4x4             | LTE B2   | 20           | 700          | 1940                 | 4x4             | LTE B4   | 20           | 2175         | 2132.5               | 4x4             | -        | -            | -            | -                    | -               | -                                     | 21.67                             | 21.77 |
| CA [2A][12A][66A]-12A | LTE B12  | 5            | 23155        | 743.5                | 64QAM | 1         | 24               | 5155         | 743.5                | 2x2             | LTE B2   | 20           | 900          | 1960                 | 4x4             | LTE B2   | 20           | 700          | 1940                 | 4x4             | LTE B4   | 20           | 2175         | 2132.5               | 4x4             | -        | -            | -            | -                    | -               | -                                     | 21.67                             | 21.77 |
| CA [2A][12A][66A]-12B | LTE B12  | 5            | 23155        | 743.5                | 64QAM | 1         | 24               | 5155         | 743.5                | 2x2             | LTE B2   | 20           | 900          | 1960                 | 4x4             | LTE B2   | 20           | 700          | 1940                 | 4x4             | LTE B4   | 20           | 2175         | 2132.5               | 4x4             | -        | -            | -            | -                    | -               | -                                     | 21.67                             | 21.77 |
| CA [2A][12A][66A]-12A | LTE B12  | 5            | 23155        | 743.5                | 64QAM | 1         | 24               | 5155         | 743.5                | 2x2             | LTE B2   | 20           | 900          | 1960                 | 4x4             | LTE B2   | 20           | 700          | 1940                 | 4x4             | LTE B4   | 20           | 2175         | 2132.5               | 4x4             | -        | -            | -            | -                    | -               | -                                     | 21.67                             | 21.77 |
|                       |          |              |              |                      |       |           |                  |              |                      |                 |          |              |              |                      |                 |          |              |              |                      |                 |          |              |              |                      |                 |          |              |              |                      |                 |                                       |                                   |       |

## LTE Band 14 as PCC

**Table 21**  
**Output Powers – Ant 3**

[illegible]

## LTE Band 5 as PCC

**Table 22**  
**Output Powers – Ant 3**

[illegible]

## LTE Band 26 as PCC

**Table 23**  
**Output Powers – Ant 3**

| Combination         | PCC Band | PCC          |            |                      |       |            |                  |               |                      |                 | SCC 1    |              |              |                      | SCC 2           |          |              |              | Power                |                 |                                       |                                   |
|---------------------|----------|--------------|------------|----------------------|-------|------------|------------------|---------------|----------------------|-----------------|----------|--------------|--------------|----------------------|-----------------|----------|--------------|--------------|----------------------|-----------------|---------------------------------------|-----------------------------------|
|                     |          | PCC BW [MHz] | PCC UL Ch. | PCC (UL) Freq. [MHz] | Mod.  | PCC UL# RB | PCC UL RB Offset | PCC Ch. [MHz] | PCC (DL) Freq. [MHz] | DL Ant. Config. | SCC Band | SCC BW [MHz] | SCC (DL) Ch. | SCC (DL) Freq. [MHz] | DL Ant. Config. | SCC Band | SCC BW [MHz] | SCC (DL) Ch. | SCC (DL) Freq. [MHz] | DL Ant. Config. | LTE Tx Power with DL CA Enabled (dBm) | LTE Single Carrier Tx Power (dBm) |
| CA [7A]-26A         | LTE B26  | 10           | 26990      | 844                  | QPSK  | 25         | 12               | 8990          | 889                  | 2x2             | LTE B7   | 20           | 3100         | 2655                 | 4x4             | -        | -            | -            | -                    | -               | 21.46                                 | 21.50                             |
| CA [25A]-26A        | LTE B26  | 10           | 26990      | 844                  | QPSK  | 25         | 12               | 8990          | 889                  | 2x2             | LTE B25  | 20           | 8365         | 1962.5               | 4x4             | -        | -            | -            | -                    | -               | 21.49                                 | 21.50                             |
| CA 26A-[41A]        | LTE B26  | 10           | 26990      | 844                  | QPSK  | 25         | 12               | 8990          | 889                  | 2x2             | LTE B41  | 20           | 40620        | 2593                 | 4x4             | -        | -            | -            | -                    | -               | 21.47                                 | 21.50                             |
| CA [7A]-[71A]-26A   | LTE B25  | 10           | 26990      | 844                  | QPSK  | 25         | 12               | 8990          | 889                  | 2x2             | LTE B7   | 20           | 3100         | 2655                 | 4x4             | LTE B7   | 20           | 2850         | 2630                 | 4x4             | 21.45                                 | 21.50                             |
| CA [25A]-[251A]-26A | LTE B26  | 5            | 27015      | 846.5                | 64QAM | 1          | 0                | 9015          | 891.5                | 2x2             | LTE B25  | 20           | 8365         | 1962.5               | 4x4             | LTE B25  | 20           | 8590         | 1985                 | 4x4             | 21.13                                 | 21.30                             |
| CA 26A-[41C]        | LTE B26  | 10           | 26990      | 844                  | QPSK  | 25         | 12               | 8990          | 889                  | 2x2             | LTE B41  | 20           | 40620        | 2593                 | 4x4             | LTE B41  | 20           | 40422        | 2573.2               | 4x4             | 21.46                                 | 21.50                             |

|                                            |                                                                                                                  |                                        |
|--------------------------------------------|------------------------------------------------------------------------------------------------------------------|----------------------------------------|
| FCC ID: BCGA2069                           |  <b>SAR EVALUATION REPORT</b> | <b>Reviewed by:</b><br>Quality Manager |
| <b>Test Dates:</b><br>12/18/2019-1/28/2020 | <b>DUT Type:</b><br>Tablet Device                                                                                | APPENDIX F:<br>Page 11 of 16           |