

Tey Pei Loo (Approved Signatory) Approval Date: 1/28/2022

# Appendix D System Verification Check Scans

#### Motorola Solutions, Inc. EME Laboratory Date/Time: 12/22/2021 11:54:42 AM

Robot#: DASY5-PG-2 | Run#: BL(SAN)-SYSP-450B-211222-07 D450V3 Dipole Model# Phantom#: ELI4 1040 Tissue Temp: 20.5 (C) Serial#: 1054 Test Freq: 450.0000 (MHz) Start Power: 250 (mW) Rotation (1D): 0.090 dB Adjusted SAR (1W): 4.28 mW/g (1g)

Comments:

Communication System Band: Dipole 450, Communication System UID: 0, Duty Cycle: 1:1,

Medium parameters used: f = 450 MHz;  $\sigma = 0.91$  S/m;  $\epsilon_r = 54.1$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Probe: EX3DV4 - SN7534, Calibrated: 4/19/2021, Frequency: 450 MHz, ConvF(11.86, 11.86, 11.86) @ 450 MHz Electronics: DAE4 Sn1598, Calibrated: 4/7/2021

### Below 2 GHz-Rev.2/System Performance Check/Dipole Area Scan 2 (41x221x1):

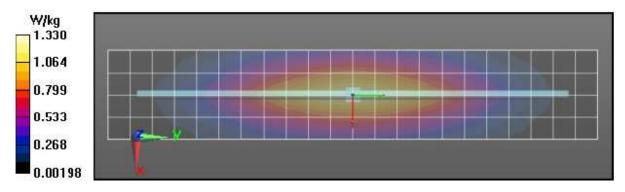
Interpolated grid: dx=1.500 mm, dy=1.500 mm Reference Value = 38.64 V/m; Power Drift = 0.00 dB Fast SAR: SAR(1 g) = 1.11 W/kg; SAR(10 g) = 0.768 W/kg (SAR corrected for target medium) Maximum value of SAR (interpolated) = 1.33 W/kg

### Below 2 GHz-Rev.2/System Performance Check/0-Degree Cube (5x5x7)/Cube 0:

Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm Reference Value = 38.64 V/m; Power Drift = 0.00 dB Peak SAR (extrapolated) = 1.59 W/kg SAR(1 g) = 1.07 W/kg; SAR(10 g) = 0.724 W/kg (SAR corrected for target medium) Smallest distance from peaks to all points 3 dB below: Larger than measurement grid Ratio of SAR at M2 to SAR at M1 = 66.7% Maximum value of SAR (measured) = 1.33 W/kg

## Below 2 GHz-Rev.2/System Performance Check/Z-Axis Retraction (1x1x17): Measurement grid: dx=20mm, dy=20mm, dz=10mm

Maximum value of SAR (measured) = 1.33 W/kg



#### Motorola Solutions, Inc. EME Laboratory Date/Time: 1/11/2022 9:36:02 AM

Robot#: DASY5-PG-2 | Run#: MFR-SYSP-450B-220111-10 Dipole Model# D450V3 Phantom#: ELI4 1040 Tissue Temp: 20.3 (C) 1054 Serial#: Test Freq: 450.0000 (MHz) 250 (mW) Start Power: Rotation (1D): 0.13 dB Adjusted SAR (1W): 4.56 mW/g (1g)

Comments:

Communication System Band: Dipole 450, Communication System UID: 0, Duty Cycle: 1:1,

Medium parameters used: f = 450 MHz;  $\sigma$  = 0.9 S/m;  $\epsilon_r$  = 55.9;  $\rho$  = 1000 kg/m<sup>3</sup> Probe: EX3DV4 - SN7534, Calibrated: 4/19/2021, Frequency: 450 MHz, ConvF(11.86, 11.86, 11.86) @ 450 MHz Electronics: DAE4 Sn1598, Calibrated: 4/7/2021

#### Below 2 GHz-Rev.2/System Performance Check/Dipole Area Scan 2 (41x221x1):

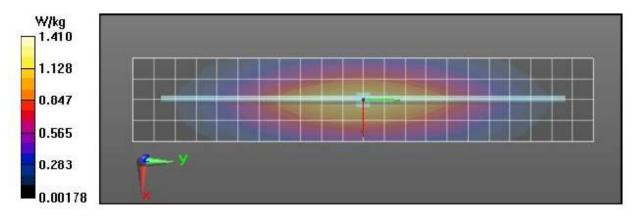
Interpolated grid: dx=1.500 mm, dy=1.500 mm Reference Value = 39.41 V/m; Power Drift = 0.05 dB Fast SAR: SAR(1 g) = 1.2 W/kg; SAR(10 g) = 0.827 W/kg (SAR corrected for target medium) Maximum value of SAR (interpolated) = 1.41 W/kg

#### Below 2 GHz-Rev.2/System Performance Check/0-Degree Cube (5x5x7)/Cube 0:

Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm Reference Value = 39.41 V/m; Power Drift = 0.05 dB Peak SAR (extrapolated) = 1.66 W/kg SAR(1 g) = 1.14 W/kg; SAR(10 g) = 0.771 W/kg (SAR corrected for target medium) Smallest distance from peaks to all points 3 dB below: Larger than measurement grid Ratio of SAR at M2 to SAR at M1 = 67% Maximum value of SAR (measured) = 1.39 W/kg

## Below 2 GHz-Rev.2/System Performance Check/Z-Axis Retraction (1x1x17): Measurement grid: dx=20mm, dy=20mm, dz=10mm

Maximum value of SAR (measured) = 1.40 W/kg



#### Motorola Solutions, Inc. EME Laboratory Date/Time: 12/22/2021 7:21:00 PM

Robot#: DASY5-PG-2   Run#:	BL(SAN)-SYSP-450H-211222-13
Dipole Model#	D450V3
Phantom#:	ELI4 1040
Tissue Temp:	22.0 (C)
Serial#:	1054
Test Freq:	450.0000 (MHz)
Start Power:	250 (mW)
Rotation (1D):	0.089 dB
Adjusted SAR (1W):	4.36 mW/g (1g)

Comments:

Communication System Band: Dipole 450, Communication System UID: 0, Duty Cycle: 1:1,

Medium parameters used: f = 450 MHz;  $\sigma = 0.86$  S/m;  $\epsilon_r = 43$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Probe: EX3DV4 - SN7534, Calibrated: 4/19/2021, Frequency: 450 MHz, ConvF(11.65, 11.65, 11.65) @ 450 MHz Electronics: DAE4 Sn1598, Calibrated: 4/7/2021

#### Below 2 GHz-Rev.2/System Performance Check/Dipole Area Scan 2 (41x221x1):

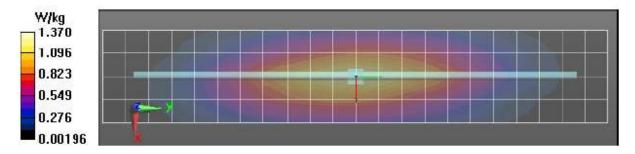
Interpolated grid: dx=1.500 mm, dy=1.500 mm Reference Value = 40.82 V/m; Power Drift = -0.07 dB Fast SAR: SAR(1 g) = 1.14 W/kg; SAR(10 g) = 0.786 W/kg (SAR corrected for target medium) Maximum value of SAR (interpolated) = 1.37 W/kg

### Below 2 GHz-Rev.2/System Performance Check/0-Degree Cube (5x5x7)/Cube 0:

Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm Reference Value = 40.82 V/m; Power Drift = -0.07 dB Peak SAR (extrapolated) = 1.63 W/kg SAR(1 g) = 1.09 W/kg; SAR(10 g) = 0.734 W/kg (SAR corrected for target medium) Smallest distance from peaks to all points 3 dB below: Larger than measurement grid Ratio of SAR at M2 to SAR at M1 = 66.4% Maximum value of SAR (measured) = 1.37 W/kg

# Below 2 GHz-Rev.2/System Performance Check/Z-Axis Retraction (1x1x17): Measurement grid: dx=20mm, dy=20mm, dz=10mm

Maximum value of SAR (measured) = 1.38 W/kg



#### Motorola Solutions, Inc. EME Laboratory Date/Time: 1/11/2022 5:22:48 PM

Robot#: DASY5-PG-2 | Run#: MFR-SYSP-450H-220111-16 Dipole Model# D450V3 Phantom#: ELI4 1022 Tissue Temp: 20.2 (C) Serial#: 1054 Test Freq: 450.0000 (MHz) 250 (mW) Start Power: 0.12 dB Rotation (1D): 4.52 mW/g (1g) Adjusted SAR (1W):

Comments:

Communication System Band: Dipole 450, Communication System UID: 0, Duty Cycle: 1:1,

Medium parameters used: f = 450 MHz;  $\sigma = 0.89$  S/m;  $\epsilon_r = 42.2$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Probe: EX3DV4 - SN7534, Calibrated: 4/19/2021, Frequency: 450 MHz, ConvF(11.65, 11.65, 11.65) @ 450 MHz Electronics: DAE4 Sn1598, Calibrated: 4/7/2021

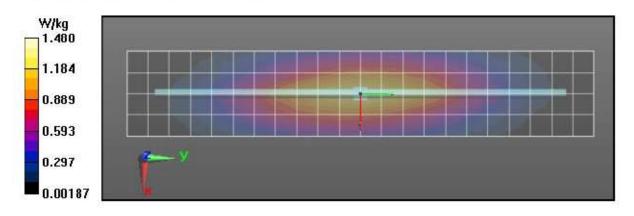
#### Below 2 GHz-Rev.2/System Performance Check/Dipole Area Scan 2 (41x221x1):

Interpolated grid: dx=1.500 mm, dy=1.500 mm Reference Value = 41.56 V/m; Power Drift = -0.06 dB Fast SAR: SAR(1 g) = 1.19 W/kg; SAR(10 g) = 0.825 W/kg (SAR corrected for target medium) Maximum value of SAR (interpolated) = 1.48 W/kg

### Below 2 GHz-Rev.2/System Performance Check/0-Degree Cube (5x5x7)/Cube 0:

Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm Reference Value = 41.56 V/m; Power Drift = -0.06 dB Peak SAR (extrapolated) = 1.76 W/kg SAR(1 g) = 1.13 W/kg; SAR(10 g) = 0.758 W/kg (SAR corrected for target medium) Smallest distance from peaks to all points 3 dB below: Larger than measurement grid Ratio of SAR at M2 to SAR at M1 = 65.9% Maximum value of SAR (measured) = 1.48 W/kg

#### Below 2 GHz-Rev.2/System Performance Check/Z-Axis Retraction (1x1x17): Measurement grid: dx=20mm, dy=20mm, dz=10mm Maximum value of SAR (measured) = 1.47 W/kg



# Appendix E DUT Scans

## Assessment at LMR Body for 462.5500-462.7250 MHz - Table 19

#### Motorola Solutions, Inc. EME Laboratory Date/Time: 1/11/2022 2:49:51 PM

Model#:	T800 (PMUE5381A)
Phantom#:	ELI4 1040
Tissue Temp:	20.3 (C)
Serial#:	1751XXK939
Antenna:	Fixed Antenna 328010048
Test Freq:	462.6375 (MHz)
Battery:	KEBT-1300
Carry Acc:	PMLN7957A
Audio Acc:	NTN8867A (53724C)
Start Power:	1.620 (W)

#### Comments:

Communication System Band: Biz Lite, Communication System UID: 0, Duty Cycle: 1:1,

Medium parameters used: f = 463 MHz;  $\sigma = 0.91$  S/m;  $\epsilon_r = 55.7$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Probe: EX3DV4 - SN7534, Calibrated: 4/19/2021, Frequency: 462.637 MHz, ConvF(11.86, 11.86, 11.86) @ 462.637 MHz Electronics: DAE4 Sn1598, Calibrated: 4/7/2021

#### Below 2 GHz-Rev.2/Ab Scan/1-Area Scan (61x161x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm Reference Value = 44.16 V/m; Power Drift = -0.38 dB

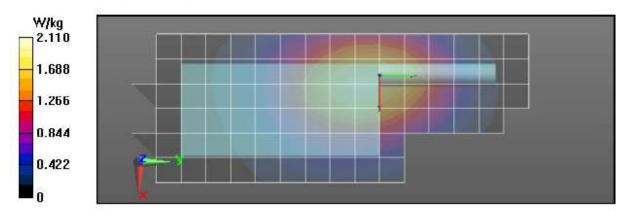
Fast SAR: SAR(1 g) = 1.83 W/kg; SAR(10 g) = 1.31 W/kg (SAR corrected for target medium) Maximum value of SAR (interpolated) = 2.14 W/kg

# Below 2 GHz-Rev.2/Ab Scan/3-Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm,

dy=7.5mm, dz=5mm Reference Value = 44.16 V/m; Power Drift = -0.33 dB Peak SAR (extrapolated) = 2.43 W/kg SAR(1 g) = 1.8 W/kg; SAR(10 g) = 1.29 W/kg (SAR corrected for target medium) Smallest distance from peaks to all points 3 dB below: Larger than measurement grid Ratio of SAR at M2 to SAR at M1 = 72.6% Maximum value of SAR (measured) = 2.11 W/kg

# Below 2 GHz-Rev.2/Ab Scan/4-Z-Axis Scan (1x1x17): Measurement grid: dx=20mm, dy=20mm, dz=10mm

Maximum value of SAR (measured) = 2.11 W/kg



## Assessment at LMR Face for 462.5500-462.7250 MHz - Table 20

#### Motorola Solutions, Inc. EME Laboratory Date/Time: 1/11/2022 6:46:51 PM

Robot#: DASY5-PG-2 Run#: MFR-FACE-220111-18 Model# T800 (PMUE5381A) Phantom#: ELI4 1108 21.6(C) 1751XXK939 Tissue Temp: Serial#: Antenna: Fixed Antenna 328010048 Test Freq: 462.6375(MHz) KEBT-1300 Battery: Carry Acc: Radio at front Audio Acc: None Start Power: 1.62 (W)

#### Comments:

Communication System Band: Biz Lite, Communication System UID: 0, Duty Cycle: 1:1,

Medium parameters used: f = 463 MHz;  $\sigma = 0.9$  S/m;  $e_r = 42$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Probe: EX3DV4 - SN7534, Calibrated: 4/19/2021, Frequency: 462.637 MHz, ConvF(11.65, 11.65, 11.65) @ 462.637 MHz Electronics: DAE4 Sn1598, Calibrated: 4/7/2021

# Below 2 GHz-Rev.2/Face Scan/1-Area Scan (61x151x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

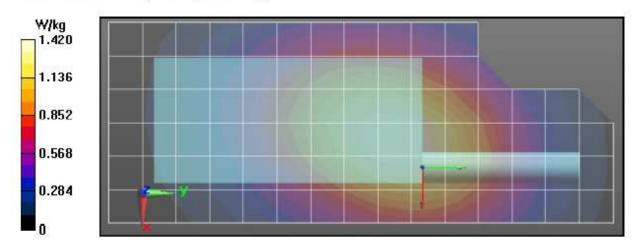
Reference Value = 35.03 V/m; Power Drift = 0.17 dB Fast SAR: SAR(1 g) = 1.24 W/kg; SAR(10 g) = 0.899 W/kg (SAR corrected for target medium) Maximum value of SAR (interpolated) = 1.47 W/kg

# Below 2 GHz-Rev.2/Face Scan/3-Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm,

dy=7.5mm, dz=5mm Reference Value = 35.03 V/m; Power Drift = 0.11 dB Peak SAR (extrapolated) = 1.70 W/kg SAR(1 g) = 1.25 W/kg; SAR(10 g) = 0.913 W/kg (SAR corrected for target medium) Smallest distance from peaks to all points 3 dB below: Larger than measurement grid Ratio of SAR at M2 to SAR at M1 = 73.4% Maximum value of SAR (measured) = 1.49 W/kg

# Below 2 GHz-Rev.2/Face Scan/4-Z-Axis Scan (1x1x17): Measurement grid: dx=20mm, dy=20mm, dz=10mm

Maximum value of SAR (measured) = 1.47 W/kg



## Assessment at LMR Body for 467.5625-467.7125 MHz - Table 22

### Motorola Solutions, Inc. EME Laboratory Date/Time: 12/22/2021 4:46:18 PM

Robot#: DASY5-PG-2	Run#: BL(SAN)-AB-211222-11
Model#:	T800 (PMUE5381A)
Phantom#:	ELI4 1040
Tissue Temp:	22.5 (C)
Serial#:	1751XXK939
Antenna:	Fixed Antenna 328010048
Test Freq:	467.6375 (MHz)
Battery:	AA ALKALINE
Carry Acc:	PMLN7706A
Audio Acc:	NTN8867A (53724C)
Start Power:	0.600 (W)

#### Comments:

Communication System Band: Biz Lite, Communication System UID: 0, Duty Cycle: 1:1,

Medium parameters used: f = 468 MHz;  $\sigma = 0.92$  S/m;  $\epsilon_r = 53.8$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Probe: EX3DV4 - SN7534, Calibrated: 4/19/2021, Frequency: 467.637 MHz, ConvF(11.86, 11.86, 11.86) @ 467.637 MHz Electronics: DAE4 Sn1598, Calibrated: 4/7/2021

#### Below 2 GHz-Rev.2/Ab Scan/1-Area Scan (61x161x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm Reference Value = 36.12 V/m; Power Drift = -0.43 dB Fast SAR: SAR(1 g) = 0.993 W/kg; SAR(10 g) = 0.716 W/kg (SAR corrected for target medium)

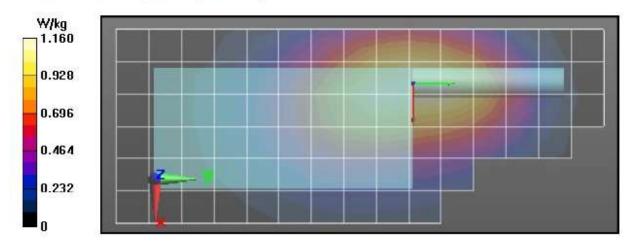
Fast SAR: SAR(1 g) = 0.993 W/kg; SAR(10 g) = 0.716 W/kg (SAR corrected for target medium Maximum value of SAR (interpolated) = 1.17 W/kg

#### Below 2 GHz-Rev.2/Ab Scan/3-Zoom Scan (6x6x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 36.12 V/m; Power Drift = -0.64 dB Peak SAR (extrapolated) = 1.32 W/kg SAR(1 g) = 0.936 W/kg; SAR(10 g) = 0.671 W/kg (SAR corrected for target medium) Smallest distance from peaks to all points 3 dB below: Larger than measurement grid Ratio of SAR at M2 to SAR at M1 = 70.6% Maximum value of SAR (measured) = 1.13 W/kg

# Below 2 GHz-Rev.2/Ab Scan/4-Z-Axis Scan (1x1x17): Measurement grid: dx=20mm, dy=20mm, dz=10mm

Maximum value of SAR (measured) = 1.09 W/kg



## Assessment at LMR Face for 467.5625-467.7125 MHz - Table 23

#### Motorola Solutions, Inc. EME Laboratory Date/Time: 12/23/2021 12:15:45 AM

Robot#: DASY5-PG-2 | Run#: FZ(DAN)-FACE-211223-01# Model#: T800 (PMUE5381A) Phantom#: ELI4 1108 Tissue Temp: 21.6(C) 1751XXK939 Serial#: Fixed Antenna 328010048 Antenna: Test Freq: 467.6375(MHz) Battery: AA ALKALINE Cany Acc: Radio at front None Audio Acc: Start Power: 0.600 (W)

Comments:

Communication System Band: Biz Lite, Communication System UID: 0, Duty Cycle: 1:1,

Medium parameters used: f = 468 MHz;  $\sigma = 0.88$  S/m;  $\epsilon_r = 42.6$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Probe: EX3DV4 - SN7534, Calibrated: 4/19/2021, Frequency: 467.637 MHz, ConvF(11.65, 11.65, 11.65, 11.65) @ 467.637 MHz Electronics: DAE4 Sn1598, Calibrated: 4/7/2021

# Below 2 GHz-Rev.2/Face Scan/1-Area Scan (61x151x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

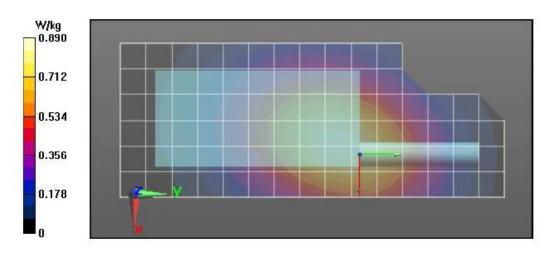
Reference Value = 29.55 V/m; Power Drift = -0.39 dB Fast SAR: SAR(1 g) = 0.757 W/kg; SAR(10 g) = 0.548 W/kg (SAR corrected for target medium) Maximum value of SAR (interpolated) = 0.901 W/kg

# Below 2 GHz-Rev.2/Face Scan/3-Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm,

dy=7.5mm, dz=5mm Reference Value = 29.55 V/m; Power Drift = -0.41 dB Peak SAR (extrapolated) = 0.987 W/kg SAR(1 g) = 0.728 W/kg; SAR(10 g) = 0.533 W/kg (SAR corrected for target medium) Smallest distance from peaks to all points 3 dB below: Larger than measurement grid Ratio of SAR at M2 to SAR at M1 = 73.4% Maximum value of SAR (measured) = 0.869 W/kg

# Below 2 GHz-Rev.2/Face Scan/4-Z-Axis Scan (1x1x17): Measurement grid: dx=20mm, dy=20mm, dz=10mm

Maximum value of SAR (measured) = 0.858 W/kg



# APPENDIX F Shortened Scan of Highest SAR Configuration

### Shortened Scan- Table 24 Motorola Solutions, Inc. EME Laboratory Date/Time: 12/23/2021 1:30:57 AM

Robot#: DASY5-PG-2 | Run#: FZ(DAN)-AB-211223-02# Model#: T800 (PMUE5381A) Phantom#: ELI4 1040 Tissue Temp: 21.9(C) 1751XXK939 Serial# Fixed Antenna 328010048 Antenna: Test Freq: 462,6375 (MHz) Battery: **KEBT-1300** Carry Acc: PMLN7957A NTN8867A (53724C) Audio Acc: Start Power: 1.620 (W)

Comments:

Communication System Band: Biz Lite, Communication System UID: 0, Duty Cycle: 1:1,

Medium parameters used: f = 463 MHz;  $\sigma = 0.92 \text{ S/m}$ ;  $\epsilon_r = 53.9$ ;  $\rho = 1000 \text{ kg/m}^3$ Probe: EX3DV4 - SN7534, Calibrated: 4/19/2021, Frequency: 462.637 MHz, ConvF(11.86, 11.86, 11.86) @ 462.637 MHz Electronics: DAE4 Sn1598, Calibrated: 4/7/2021

Below 2 GHz-Rev.2/Ab Scan/1-Area Scan (61x161x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm Reference Value = 44.59 V/m; Power Drift = -0.46 dB Fast SAR: SAR(1 g) = 1.77 W/kg; SAR(10 g) = 1.27 W/kg (SAR corrected for target medium) Maximum value of SAR (interpolated) = 2.10 W/kg

Below 2 GHz-Rev.2/Ab Scan/2-Volume 2D Scan (41x41x1): Interpolated grid: dx=0.7500 mm, dy=0.7500 mm, dz=1.000 mm Reference Value = 44.59 V/m; Power Drift = -0.48 dB Fact SAP: SAP(1 a) = 1.77 W/km; SAP(10 a) = 1.20 W/km (SAP corrected for target modium)

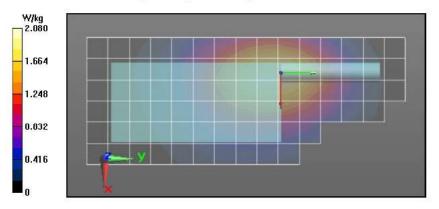
Fast SAR: SAR(1 g) = 1.77 W/kg; SAR(10 g) = 1.29 W/kg (SAR corrected for target medium) Maximum value of SAR (interpolated) = 2.07 W/kg

Below 2 GHz-Rev.2/Ab Scan/3-Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 50.44 V/m; Power Drift = -0.14 dB Peak SAR (extrapolated) = 2.56 W/kg SAR(1 g) = 1.86 W/kg; SAR(10 g) = 1.33 W/kg (SAR corrected for target medium) Smallest distance from peaks to all points 3 dB below: Larger than measurement grid Ratio of SAR at M2 to SAR at M1 = 72.1% Maximum value of SAR (measured) = 2.22 W/kg

Below 2 GHz-Rev.2/Ab Scan/4-Z-Axis Scan (1x1x17): Measurement grid: dx=20mm, dy=20mm, dz=10mm

Maximum value of SAR (measured) = 2.05 W/kg



Scan Description	<b>Referenced Table</b>	Test Time (min.)	SAR 1g (W/kg)
Shortened scan (zoom)	25	10	1.19
Full scan (area & zoom)	19	20	1.2

# APPENDIX G DUT Test Position Photos

# 1.0 Highest SAR Test Position per body location

# 1.1 Body

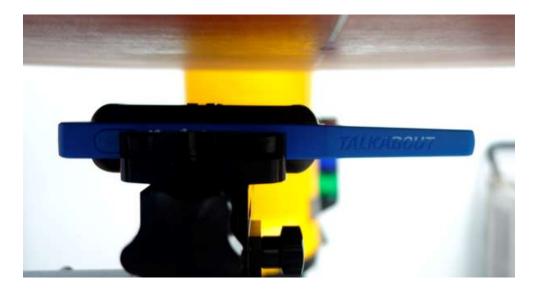
DUT with fixed antenna, offered battery KEBT-1300 and body worn kit PMLN7957A against the phantom with an audio accessory NTN8867A (53724C) attached. Same position used for other applicable offered batteries and audio accessories.



	Separation Distances (mm)		
	@ bottom surface		
Antenna kit #	of the DUT	@ antenna's base	@ antenna's tip
Fixed antenna	12	20	23

## 1.2 Face

Front of DUT with fixed antenna and offered battery KEBT-1300 separated 2.5cm from the phantom without an audio accessory attached. Same position used for other applicable offered batteries.



	Separation Distances (mm)		
	@ bottom surface		
Antenna kit #	of the DUT	@ antenna's base	@ antenna's tip
Fixed antenna	25	33	35

# APPENDIX H DUT, Body worn and audio accessories Photos

Please refer to original filling report