# 20230612\_SystemPerformanceCheck-D1750V2 SN 1125

Frequency: 1750 MHz; Communication System Channel Number: 0; Duty Cycle: 1:1 Room Ambient Temperature: 23.0°C; Liquid Temperature: 22.0°C Medium parameters used: f = 1750 MHz;  $\sigma$  = 1.317 S/m;  $\epsilon_r$  = 41.49;  $\rho$  = 1000 kg/m<sup>3</sup>

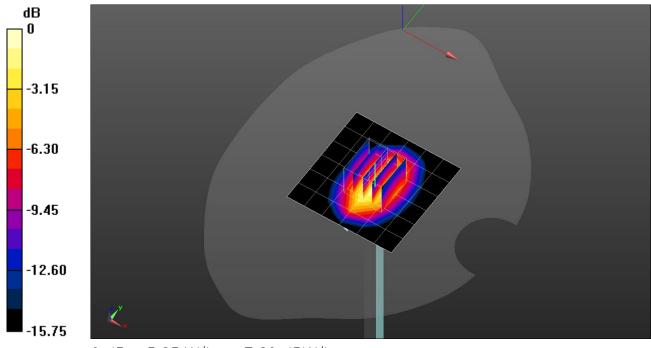
DASY5 Configuration:

- Area Scan Setting: Find Secondary Maximum Within: 2.0 dB and with a peak SAR value greater than 0.012W/kg
- Electronics: DAE4 Sn1668; Calibrated: 4/26/2023
- Probe: EX3DV4 SN7645; ConvF(7.74, 7.74, 7.74) @ 1750 MHz; Calibrated: 11/15/2022
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Phantom: Twin-SAM V5.0 (Right); Phantom section: Flat Section ; Type: QD 000 P40 CD
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

# Head/1750MHz, Pin=100 mW/Area Scan (7x7x1): Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (measured) = 4.85 W/kg

# Head/1750MHz, Pin=100 mW/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 55.75 V/m; Power Drift = -0.10 dB Peak SAR (extrapolated) = 6.19 W/kg SAR(1 g) = 3.51 W/kg; SAR(10 g) = 1.95 W/kg Maximum value of SAR (measured) = 5.25 W/kg



0 dB = 5.25 W/kg = 7.20 dBW/kg

# 20230615\_SystemPerformanceCheck-D1900V2 SN 5d190

Frequency: 1900 MHz; Communication System Channel Number: 0; Duty Cycle: 1:1 Room Ambient Temperature: 23.0°C; Liquid Temperature: 22.0°C Medium parameters used: f = 1900 MHz;  $\sigma$  = 1.462 S/m;  $\epsilon_r$  = 40.509;  $\rho$  = 1000 kg/m<sup>3</sup>

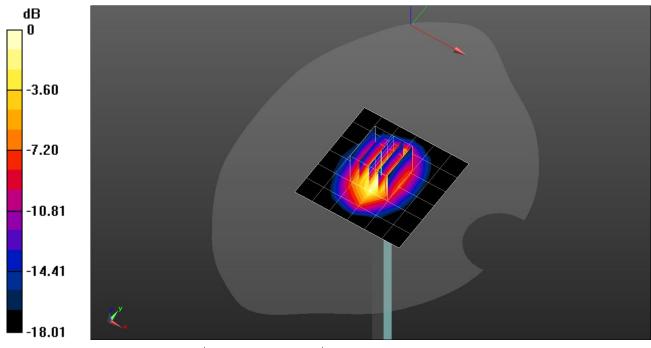
DASY5 Configuration:

- Area Scan Setting: Find Secondary Maximum Within: 2.0 dB and with a peak SAR value greater than 0.012W/kg
- Electronics: DAE4 Sn1671; Calibrated: 5/25/2023
- Probe: EX3DV4 SN7651; ConvF(8.14, 8.76, 7.51) @ 1900 MHz; Calibrated: 5/30/2023
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Phantom: Twin-SAM V5.0 (Right); Phantom section: Flat Section ; Type: QD 000 P40 CD
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

# Head/1900MHz, Pin=100 mW/Area Scan (7x7x1): Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (measured) = 5.47 W/kg

# Head/1900MHz, Pin=100 mW/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 59.17 V/m; Power Drift = 0.11 dB Peak SAR (extrapolated) = 6.56 W/kg SAR(1 g) = 3.62 W/kg; SAR(10 g) = 1.88 W/kg Maximum value of SAR (measured) = 5.59 W/kg



0 dB = 5.59 W/kg = 7.47 dBW/kg

#### UL Korea, Ltd. Suwon Laboratory SAR#4 Date/Time:2023-06-07, 13:31

# System Performance Check Report

# Summary

Dipole	Frequency [MHz]	TSL	Power [dBm]
D2600V2 - SN1178	2600.0	HSL	20.0

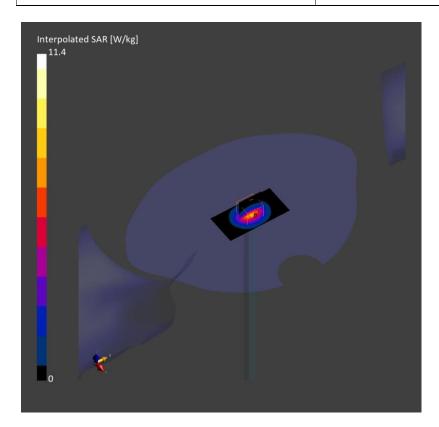
## **Exposure Conditions**

Phantom Section, TSL	Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity
Flat, HSL	10		CW, 0	2600.000, 0	7.74	1.91	39.3

#### Hardware Setup

Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V8.0 (30deg probe tilt) – 1991	HBBL-600-10000, 2023-Jun-07	EX3DV4 - SN7330, 2023-01-24	DAE4 Sn1667, 2023-04-24

	Area Scan		Zoom Scan
Grid Extents [mm]	40.0 x 80.0		30.0 x 30.0 x 30.0
Grid Steps [mm]	10.0 x 10.0		5.0 x 5.0 x 1.5
Sensor Surface [mm]	3.0		1.4
Measurement Results			
		Area Scan	Zoom Scan
psSAR1g [W/Kg]		5.86	5.80
psSAR10g [W/Kg]		2.66	2.70
Power Drift [dB]		·	0.03



# 20230609\_SystemPerformancecheck D2450V2\_SN 939

Frequency: 2450 MHz; Communication System Channel Number: 0; Duty Cycle: 1:1 Room Ambient Temperature: 23.0°C; Liquid Temperature: 22.0°C Medium parameters used: f = 2450 MHz;  $\sigma$  = 1.791 S/m;  $\epsilon_r$  = 38.535;  $\rho$  = 1000 kg/m<sup>3</sup>

DASY5 Configuration:

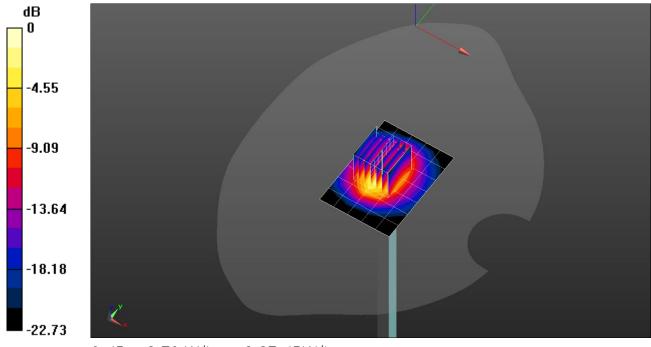
- Area Scan Setting: Find Secondary Maximum Within: 2.0 dB and with a peak SAR value greater than 0.012W/kg
- Electronics: DAE4 Sn912; Calibrated: 11/16/2022
- Probe: EX3DV4 SN7646; ConvF(8.42, 8.42, 8.42) @ 2450 MHz; Calibrated: 3/23/2023
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Phantom: Twin-SAM V5.0 (20deg probe tilt); Phantom section: Flat Section ; Type: QD 000 P40 CD
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

# Head/2450MHz, Pin=100mW/Area Scan (6x8x1): Measurement grid: dx=12mm, dy=12mm

Maximum value of SAR (measured) = 9.54 W/kg

# Head/2450MHz, Pin=100mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 61.84 V/m; Power Drift = 0.06 dB Peak SAR (extrapolated) = 12.3 W/kg SAR(1 g) = 5.72 W/kg; SAR(10 g) = 2.61 W/kg Maximum value of SAR (measured) = 9.70 W/kg



0 dB = 9.70 W/kg = 9.87 dBW/kg

#### UL Korea, Ltd. Suwon Laboratory SAR#6 Date/Time:2023-06-07, 17:02

# System Performance Check Report

#### Summary

Dipole	Frequency [MHz]	TSL	Power [dBm]
D5GHzV2 - SN1209	5250.0	HSL	20.0

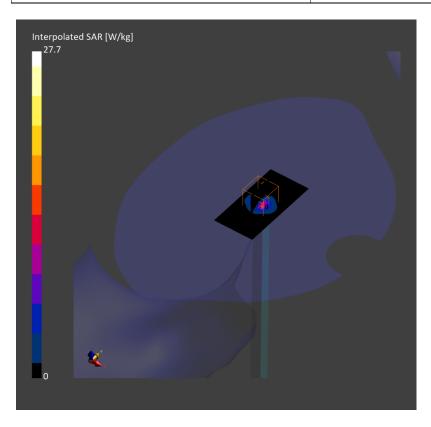
#### **Exposure Conditions**

Phantom Section, TSL	Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity
Flat, HSL	10		CW, 0	5250.0, 0	5.15	4.53	36.2

# Hardware Setup

Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V8.0 (30deg probe tilt) - 2043	HBBL-600-10000, 2023-Jun-07	EX3DV4 - SN7376, 2022-07-27	DAE4 Sn1494, 2022-07-18

		Area Scan		Zoom Scan
Grid Extents [mm]		40.0 × 80.0		22.0 x 22.0 x 22.0
Grid Steps [mm]	10.0 x 10.0			4.0 × 4.0 × 1.4
Sensor Surface [mm]		3.0		1.4
Measurement Results				
			Area Scan	Zoom Scan
psSAR1g [W/Kg]			7.56	7.82
psSAR10g [W/Kg]			2.17	2.29
Power Drift [dB]				0.06



#### UL Korea, Ltd. Suwon Laboratory SAR#6 Date/Time:2023-06-23, 16:01

## System Performance Check Report

#### Summary

Dipole	Frequency [MHz]	TSL	Power [dBm]
D5GHzV2 - SN1325	5600.0	HSL	20.0

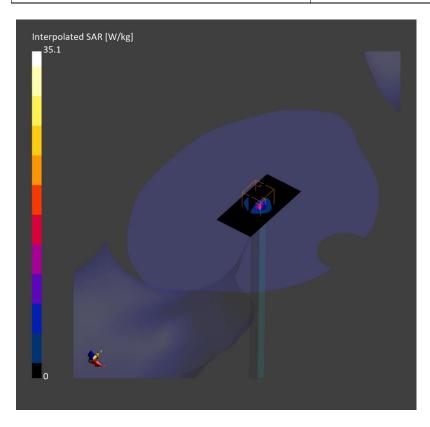
#### **Exposure Conditions**

Phantom Section, TSL	Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity
Flat, HSL	10		CW, 0	5600.0, 0	4.76	5.23	35.9

# Hardware Setup

Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V8.0 (30deg probe tilt) – 2043	HBBL-600-10000, 2023-Jun-23	EX3DV4 - SN7314, 2023-05-26	DAE4 Sn1494, 2022-07-18

	Area Scan		Zoom Scan
Grid Extents [mm]	40.0 x 80.0		22.0 x 22.0 x 22.0
Grid Steps [mm]	10.0 x 10.0		4.0 × 4.0 × 1.4
Sensor Surface [mm]	3.0		1.4
Measurement Results			
		Area Scan	Zoom Scan
psSAR1g [W/Kg]		8.57	8.96
psSAR10g [W/Kg]		2.44	2.59
Power Drift [dB]			0.01



#### UL Korea, Ltd. Suwon Laboratory SAR#6 Date/Time:2023-06-23, 16:19

## System Performance Check Report

#### Summary

Dipole	Frequency [MHz]	TSL	Power [dBm]
D5GHzV2 - SN1325	5800.0	HSL	20.0

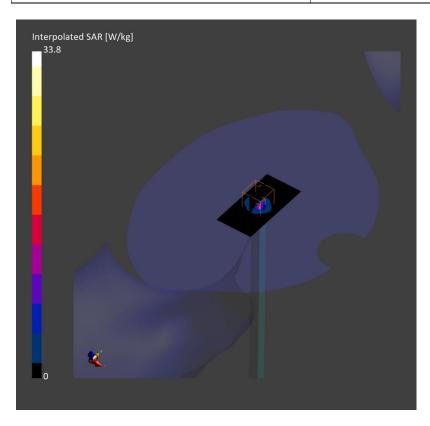
#### **Exposure Conditions**

Phantom Section, TSL	Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity
Flat, HSL	10		CW, 0	5800.0, 0	4.8	5.46	35.5

# Hardware Setup

Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V8.0 (30deg probe tilt) - 2043	HBBL-600-10000, 2023-Jun-23	EX3DV4 - SN7314, 2023-05-26	DAE4 Sn1494, 2022-07-18

	Area Scan		Zoom Scan
Grid Extents [mm]	40.0 × 80.0		22.0 x 22.0 x 22.0
Grid Steps [mm]	10.0 x 10.0		4.0 x 4.0 x 1.4
Sensor Surface [mm]	3.0		1.4
Measurement Results			
		Area Scan	Zoom Scan
psSAR1g [W/Kg]		7.91	8.26
psSAR10g [W/Kg]		2.25	2.38
Power Drift [dB]		<u>.</u>	-0.01



#### UL Korea, Ltd. Suwon Laboratory SAR#7 Date/Time:2023-06-30, 08:58

#### System Performance Check Report

#### Summary

Dipole	Frequency [MHz]	TSL	Power [dBm]
CLA-13 - SN1015	13.0	HSL	20.0

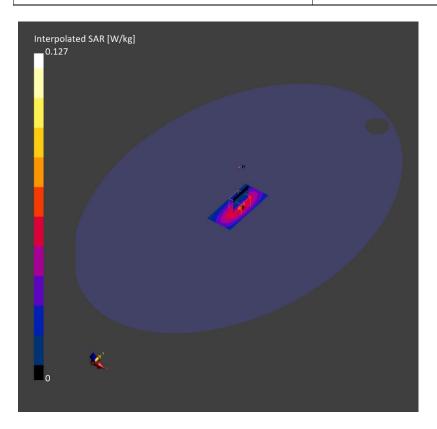
#### **Exposure Conditions**

Phantom Section, TSL	Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity
Flat, HSL	0		CW, 0	13.0, 0	16.64	0.773	57.1

#### Hardware Setup

Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V6.0 (20deg probe tilt) – 2005	HBBL4-250, 2023-Jun-30	EX3DV4 - SN7313, 2023-03-24	DAE4 Sn1447, 2023-03-22

	Area Sc	เท	Zoom Scan
Grid Extents [mm]	40.0 x 90	.0	32.0 x 32.0 x 30.0
Grid Steps [mm]	10.0 × 15	.0	6.0 x 6.0 x 1.5
Sensor Surface [mm]	3	.0	1.4
Measurement Results			
		Area Scan	Zoom Scan
psSAR1g [W/Kg]		0.062	0.060
psSAR10g [W/Kg]		0.050	0.037
Power Drift [dB]			-0.02



#### UL Korea, Ltd. Suwon Laboratory SAR#8 Date/Time:2023-06-30, 17:45

# System Performance Check Report

#### Summary

Dipole	Frequency [MHz]	TSL	Power [dBm]
D835V2 - SN4d174	835.0	HSL	20.0

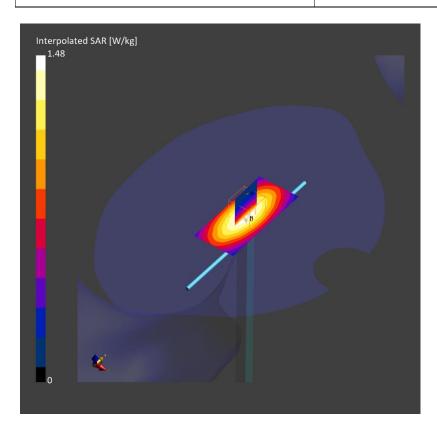
#### **Exposure Conditions**

Phantom Section, TSL	Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity
Flat, HSL	15		CW, 0	835.0, 0	10.12	0.907	41.2

# Hardware Setup

Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V8.0 (30deg probe tilt) – 2037	HBBL-600-10000, 2023-Jun-30	EX3DV4 - SN7646, 2023-03-23	DAE4 Sn1468, 2022-08-18

	Area Scan		Zoom Scan
Grid Extents [mm]	40.0 x 90.0		30.0 x 30.0 x 30.0
Grid Steps [mm]	10.0 x 15.0		6.0 x 6.0 x 1.5
Sensor Surface [mm]	3.0		1.4
Measurement Results			
		Area Scan	Zoom Scan
psSAR1g [W/Kg]		0.974	0.973
psSAR10g [W/Kg]		0.644	0.640
Power Drift [dB]			0.00



#### UL Korea, Ltd. Suwon Laboratory SAR#9 Date/Time:2023-06-23, 15:17

# System Performance Check Report

#### Summary

Dipole	Frequency [MHz]	TSL	Power [dBm]
D750V3 - SN1205	750.0	HSL	20.0

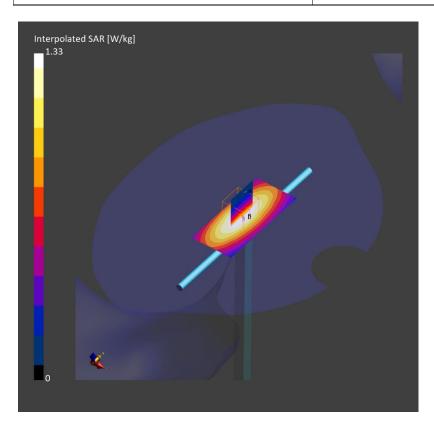
#### **Exposure Conditions**

Phantom Section, TSL	Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity
Flat, HSL	15		CW, 0	750.0, 0	10.37	0.896	41.7

#### Hardware Setup

Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V8.0 (30deg probe tilt) – 2037	HBBL-600-10000, 2023-Jun-23	EX3DV4 - SN3871, 2022-09-26	DAE4 Sn1670, 2023-05-24

	Area Sca	1	Zoom Scan
Grid Extents [mm]	40.0 x 90.	)	30.0 x 30.0 x 30.0
Grid Steps [mm]	10.0 x 15.	)	6.0 x 6.0 x 1.5
Sensor Surface [mm]	3.	)	1.4
Measurement Results	·		
		Area Scan	Zoom Scan
psSAR1g [W/Kg]		0.877	0.872
psSAR10g [W/Kg]		0.588	0.576
Power Drift [dB]			0.01



#### UL Korea, Ltd. Suwon Laboratory SAR#9 Date/Time:2023-06-23, 08:51

# System Performance Check Report

#### Summary

Dipole	Frequency [MHz]	TSL	Power [dBm]
D835V2 - SN4d174	835.0	HSL	20.0

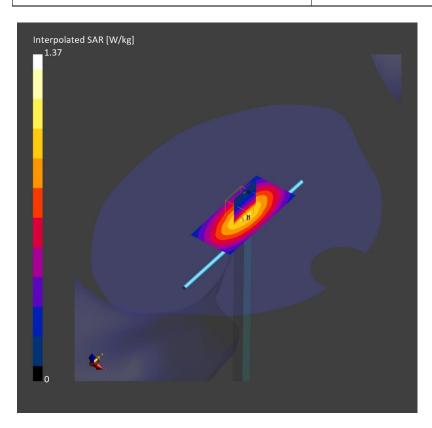
#### **Exposure Conditions**

Phantom Section, TSL	Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity
Flat, HSL	15		CW, 0	835.0, 0	9.95	0.907	41.2

# Hardware Setup

Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V8.0 (30deg probe tilt) - 2037	HBBL-600-10000, 2023-Jun-23	EX3DV4 - SN3871, 2022-09-26	DAE4 Sn1670, 2023-05-24

	Area Scan		Zoom Scan
Grid Extents [mm]	40.0 x 90.0		30.0 x 30.0 x 30.0
Grid Steps [mm]	10.0 x 15.0		6.0 x 6.0 x 1.5
Sensor Surface [mm]	3.0		1.4
Measurement Results			
		Area Scan	Zoom Scan
psSAR1g [W/Kg]		0.923	0.911
psSAR10g [W/Kg]		0.609	0.598
Power Drift [dB]			0.02



#### UL Korea, Ltd. Suwon Laboratory SAR#9 Date/Time:2023-06-28, 18:17

# System Performance Check Report

#### Summary

Dipole	Frequency [MHz]	TSL	Power [dBm]
D2600V2 - SN1178	2600.0	HSL	20.0

#### **Exposure Conditions**

Phantom Section, TSL	Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity
Flat, HSL	10		CW, 0	2600.0, 0	7.29	2.02	39.3

# Hardware Setup

Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V8.0 (30deg probe tilt) - 2037	HBBL-600-10000, 2023-Jun-28	EX3DV4 - SN7314, 2023-05-26	DAE4 Sn1670, 2023-05-24

	Are	a Scan	Zoom Scan
Grid Extents [mm]	40.0	80.0	30.0 x 30.0 x 30.0
Grid Steps [mm]	10.0	x 10.0	5.0 x 5.0 x 1.5
Sensor Surface [mm]		3.0	1.4
Measurement Results		·	
		Area Scar	Zoom Scan
psSAR1g [W/Kg]		5.39	5.37
psSAR10g [W/Kg]		2.42	2.40
Power Drift [dB]			-0.03

