

Test Laboratory: BTL Inc.

Date: 2025/3/29

W02_802.11b_CH1_Horizontal Down_5mm_ANT1+2

DUT: Dongle;

Communication System: UID 10012 - CAB, IEEE 802.11b WiFi 2.4 GHz (DSSS, 1 Mbps); Frequency: 2412 MHz; Duty Cycle: 1:1

Medium parameters used (interpolated): $f = 2412$ MHz; $\sigma = 1.808$ S/m; $\epsilon_r = 39.848$; $\rho = 1000$ kg/m³

Ambient Temperature : 22.6 °C; Liquid Temperature : 22.1 °C

DASY Configuration:

- Probe: EX3DV4 - SN7544; ConvF(7.51, 7.27, 7.34) @ 2412 MHz; Calibrated: 2024/4/3
- Sensor-Surface: 1.4mm (Mechanical Surface Detection), $z = 1.0, 31.0$
- Electronics: DAE4 Sn1390; Calibrated: 2024/11/14
- Phantom: ELI v5.0; Type: QDOVA002AA; Serial: 1128
- DASY52 52.10.2(1495); SEMCAD X 14.6.12(7450)

Area Scan (6x11x1): Measurement grid: $dx=12$ mm, $dy=12$ mm

Maximum value of SAR (measured) = 1.88 W/kg

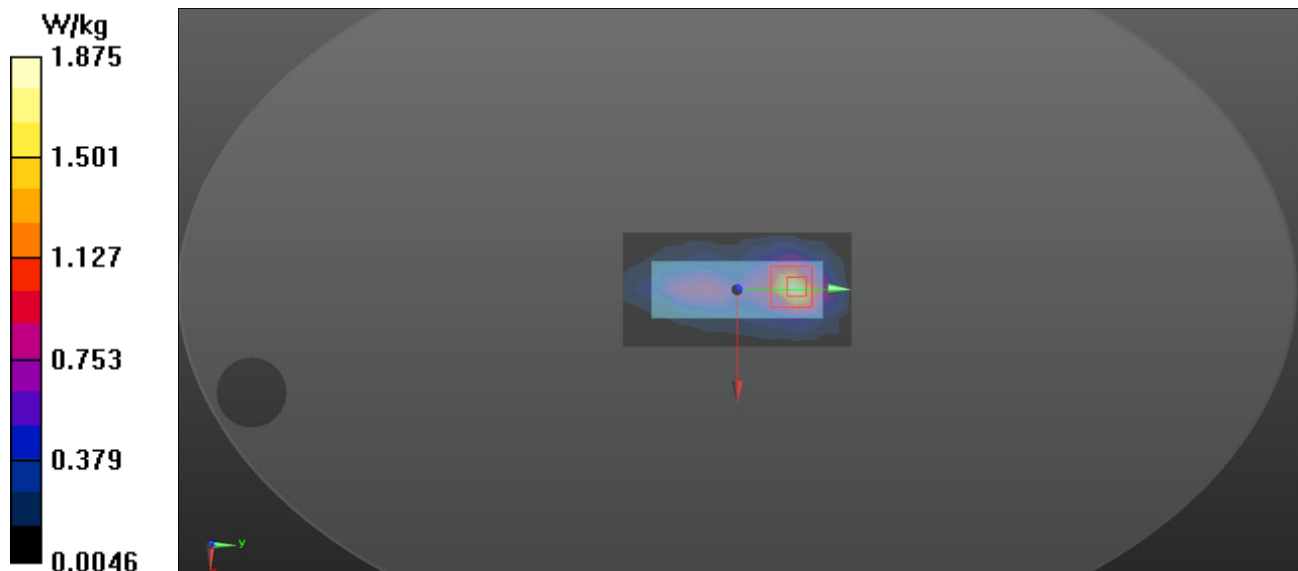
Zoom Scan (7x7x7)/Cube 0: Measurement grid: $dx=5$ mm, $dy=5$ mm, $dz=5$ mm

Reference Value = 19.89 V/m; Power Drift = -0.17 dB

Peak SAR (extrapolated) = 2.16 W/kg

SAR(1 g) = 1.11 W/kg; SAR(10 g) = 0.565 W/kg

Maximum value of SAR (measured) = 1.69 W/kg



Test Laboratory: BTL Inc.

Date: 2025/3/29

W10_802.11g_CH6_Horizontal Down_5mm_ANT1+2

DUT: Dongle;

Communication System: UID 10013 - CAB, IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 6 Mbps); Frequency: 2437 MHz; Duty Cycle: 1:1

Medium parameters used (interpolated): $f = 2437$ MHz; $\sigma = 1.834$ S/m; $\epsilon_r = 39.787$; $\rho = 1000$ kg/m³

Ambient Temperature : 22.6 °C; Liquid Temperature : 22.1 °C

DASY Configuration:

- Probe: EX3DV4 - SN7544; ConvF(7.51, 7.27, 7.34) @ 2437 MHz; Calibrated: 2024/4/3
- Sensor-Surface: 1.4mm (Mechanical Surface Detection), $z = 1.0, 31.0$
- Electronics: DAE4 Sn1390; Calibrated: 2024/11/14
- Phantom: ELI v5.0; Type: QDOVA002AA; Serial: 1128
- DASY52 52.10.2(1495); SEMCAD X 14.6.12(7450)

Area Scan (6x11x1): Measurement grid: $dx=15$ mm, $dy=15$ mm.

Maximum value of SAR (measured) = 1.69 W/kg

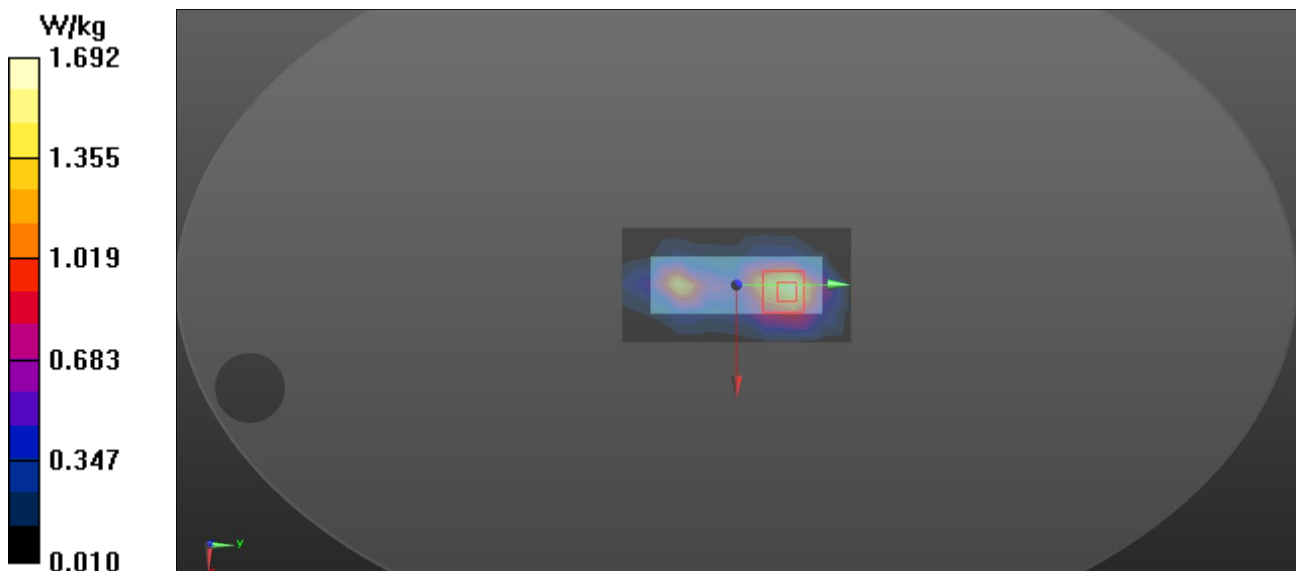
Zoom Scan (7x7x7)/Cube 0: Measurement grid: $dx=5$ mm, $dy=5$ mm, $dz=5$ mm

Reference Value = 17.95 V/m; Power Drift = 0.01 dB

Peak SAR (extrapolated) = 2.20 W/kg

SAR(1 g) = 1.16 W/kg; SAR(10 g) = 0.603 W/kg

Maximum value of SAR (measured) = 1.77 W/kg



Test Laboratory: BTL Inc.

Date: 2025/3/31

W20_802.11be EHT40_CH46_Vertical Back_5mm_ANT1+2

DUT: Dongle;

Communication System: UID 0, IEEE 802.11be WiFi 40MHz, EHT0,99pc duty cycle (0); Frequency: 5230 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 5230 \text{ MHz}$; $\sigma = 4.575 \text{ S/m}$; $\epsilon_r = 35.506$; $\rho = 1000 \text{ kg/m}^3$

Ambient Temperature : $22.8 \text{ }^\circ\text{C}$; Liquid Temperature : $22.3 \text{ }^\circ\text{C}$

DASY Configuration:

- Probe: EX3DV4 - SN7544; ConvF(5.48, 5.36, 5.39) @ 5230 MHz; Calibrated: 2024/4/3
- Sensor-Surface: 1.4mm (Mechanical Surface Detection), $z = 1.0, 23.0$
- Electronics: DAE4 Sn1390; Calibrated: 2024/11/14
- Phantom: ELI v5.0; Type: QDOVA002AA; Serial: 1128
- DASY52 52.10.2(1495); SEMCAD X 14.6.12(7450)

Area Scan (8x14x1): Measurement grid: $dx=10\text{mm}$, $dy=10\text{mm}$

Maximum value of SAR (measured) = 1.82 W/kg

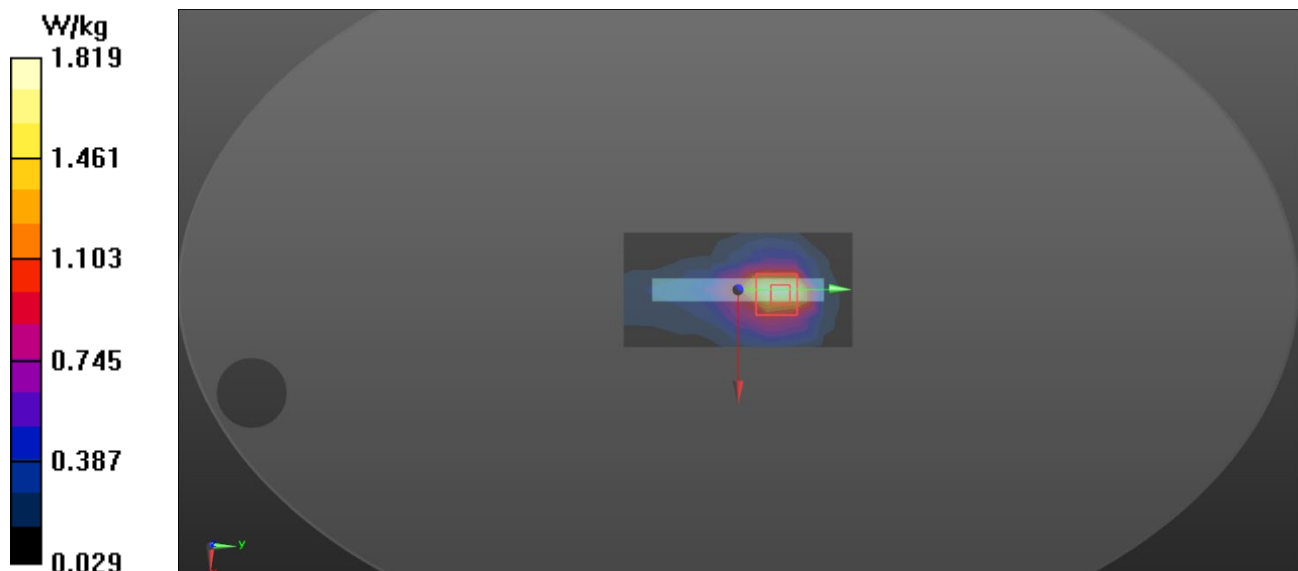
Zoom Scan (7x7x12)/Cube 0: Measurement grid: $dx=4\text{mm}$, $dy=4\text{mm}$, $dz=2\text{mm}$

Reference Value = 15.74 V/m ; Power Drift = -0.08 dB

Peak SAR (extrapolated) = 5.38 W/kg

SAR(1 g) = 1.25 W/kg ; SAR(10 g) = 0.446 W/kg

Maximum value of SAR (measured) = 3.09 W/kg



Test Laboratory: BTL Inc.

Date: 2025/3/31

W27_802.11be EHT40_CH54_Vertical Back_5mm_ANT1+2

DUT: Dongle;

Communication System: UID 0, IEEE 802.11be WiFi 40MHz, EHT0,99pc duty cycle (0); Frequency: 5270 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 5270 \text{ MHz}$; $\sigma = 4.609 \text{ S/m}$; $\epsilon_r = 35.287$; $\rho = 1000 \text{ kg/m}^3$

Ambient Temperature : $22.8 \text{ }^\circ\text{C}$; Liquid Temperature : $22.3 \text{ }^\circ\text{C}$

DASY Configuration:

- Probe: EX3DV4 - SN7544; ConvF(5.48, 5.36, 5.39) @ 5270 MHz; Calibrated: 2024/4/3
- Sensor-Surface: 1.4mm (Mechanical Surface Detection), $z = 1.0, 23.0$
- Electronics: DAE4 Sn1390; Calibrated: 2024/11/14
- Phantom: ELI v5.0; Type: QDOVA002AA; Serial: 1128
- DASY52 52.10.2(1495); SEMCAD X 14.6.12(7450)

Area Scan (8x14x1): Measurement grid: $dx=10\text{mm}$, $dy=10\text{mm}$

Maximum value of SAR (measured) = 1.70 W/kg

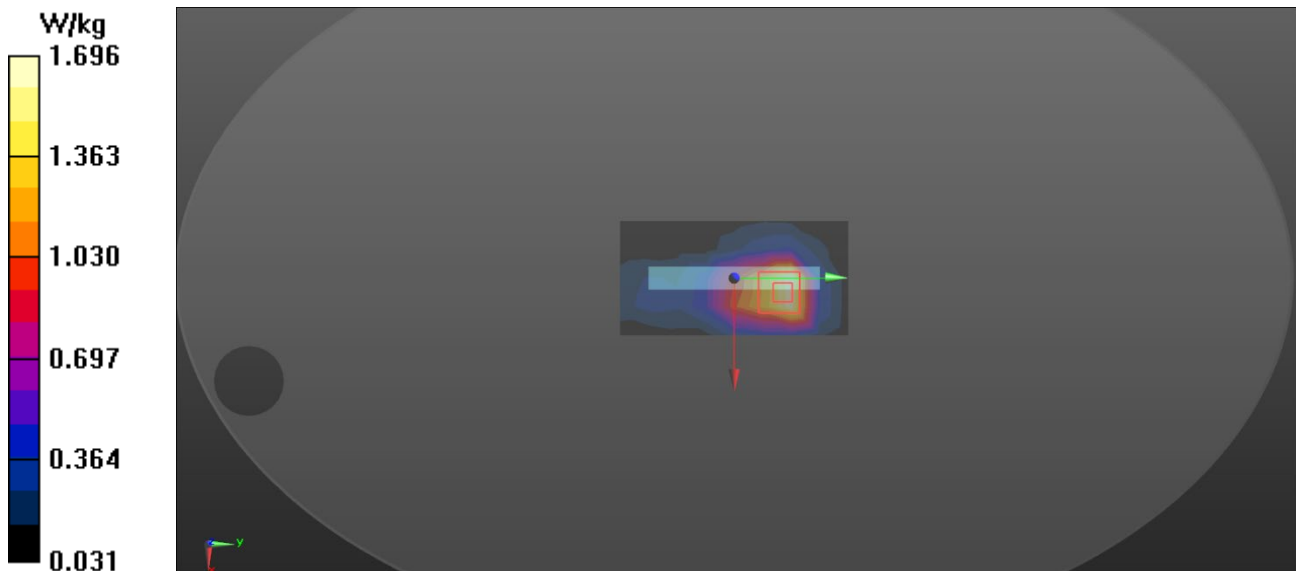
Zoom Scan (7x7x12)/Cube 0: Measurement grid: $dx=4\text{mm}$, $dy=4\text{mm}$, $dz=2\text{mm}$

Reference Value = 15.56 V/m ; Power Drift = -0.05 dB

Peak SAR (extrapolated) = 4.91 W/kg

SAR(1 g) = 1.12 W/kg ; SAR(10 g) = 0.400 W/kg

Maximum value of SAR (measured) = 2.80 W/kg



Test Laboratory: BTL Inc.

Date: 2025/3/31

W36_802.11be EHT110_CH46_Veritical Back_5mm_ANT1+2

DUT: Dongle;

Communication System: UID 0, IEEE 802.11be WiFi 40MHz, EHT0,99pc duty cycle (0); Frequency: 5550 MHz;
Duty Cycle: 1:1

Medium parameters used: $f = 5550 \text{ MHz}$; $\sigma = 4.989 \text{ S/m}$; $\epsilon_r = 34.593$; $\rho = 1000 \text{ kg/m}^3$

Ambient Temperature : $22.8 \text{ }^\circ\text{C}$; Liquid Temperature : $22.3 \text{ }^\circ\text{C}$

DASY Configuration:

- Probe: EX3DV4 - SN7544; ConvF(4.74, 4.48, 4.59) @ 5550 MHz; Calibrated: 2024/4/3
- Sensor-Surface: 1.4mm (Mechanical Surface Detection), $z = 1.0, 23.0$
- Electronics: DAE4 Sn1390; Calibrated: 2024/11/14
- Phantom: ELI v5.0; Type: QDOVA002AA; Serial: 1128
- DASY52 52.10.2(1495); SEMCAD X 14.6.12(7450)

Area Scan (8x14x1): Measurement grid: $dx=10\text{mm}$, $dy=10\text{mm}$

Maximum value of SAR (measured) = 2.04 W/kg

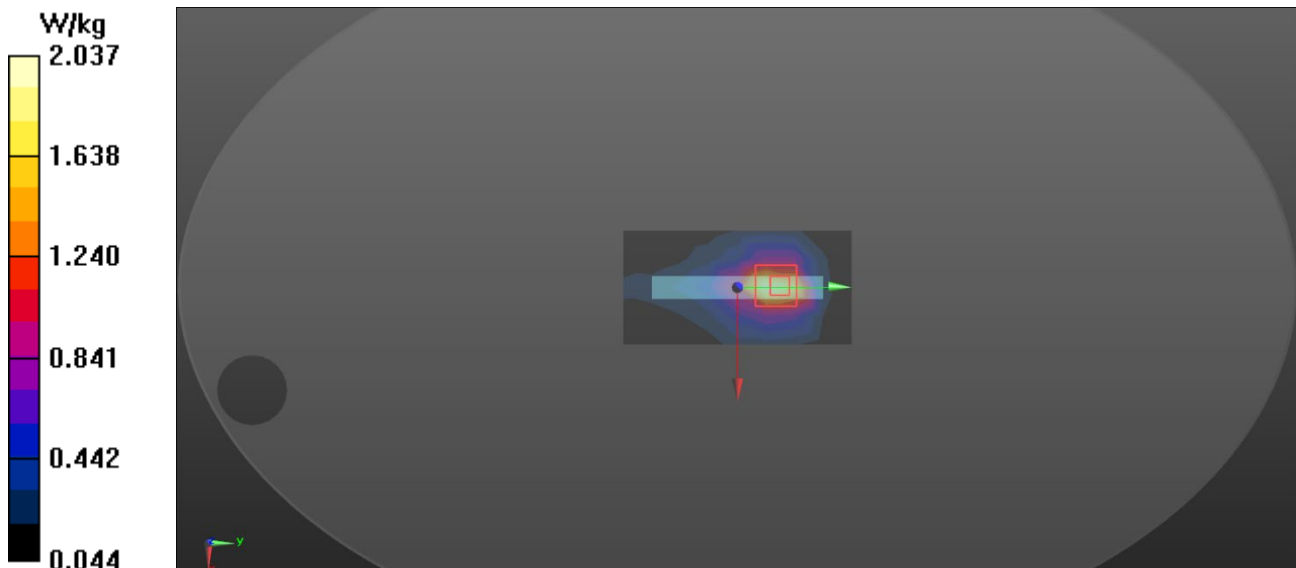
Zoom Scan (7x7x12)/Cube 0: Measurement grid: $dx=4\text{mm}$, $dy=4\text{mm}$, $dz=2\text{mm}$

Reference Value = 14.99 V/m ; Power Drift = -0.01 dB

Peak SAR (extrapolated) = 5.87 W/kg

SAR(1 g) = 1.23 W/kg ; SAR(10 g) = 0.424 W/kg

Maximum value of SAR (measured) = 3.15 W/kg



Test Laboratory: BTL Inc.

Date: 2025/3/31

W41_802.11be EHT20_CH165_Veritical Front_5mm_ANT1+2

DUT: Dongle;

Communication System: UID 0, IEEE 802.11be WiFi 20MHz, EHT0,99pc duty cycle (0); Frequency: 5825 MHz; Duty Cycle: 1:1

Medium parameters used (interpolated): $f = 5825$ MHz; $\sigma = 5.214$ S/m; $\epsilon_r = 33.848$; $\rho = 1000$ kg/m³

Ambient Temperature : 22.8 °C; Liquid Temperature : 22.3 °C

DASY Configuration:

- Probe: EX3DV4 - SN7544; ConvF(4.96, 4.67, 4.8) @ 5825 MHz; Calibrated: 2024/4/3
- Sensor-Surface: 1.4mm (Mechanical Surface Detection), $z = 1.0, 23.0$
- Electronics: DAE4 Sn1390; Calibrated: 2024/11/14
- Phantom: ELI v5.0; Type: QDOVA002AA; Serial: 1128
- DASY52 52.10.2(1495); SEMCAD X 14.6.12(7450)

Area Scan (8x14x1): Measurement grid: $dx=10$ mm, $dy=10$ mm

Maximum value of SAR (measured) = 2.10 W/kg

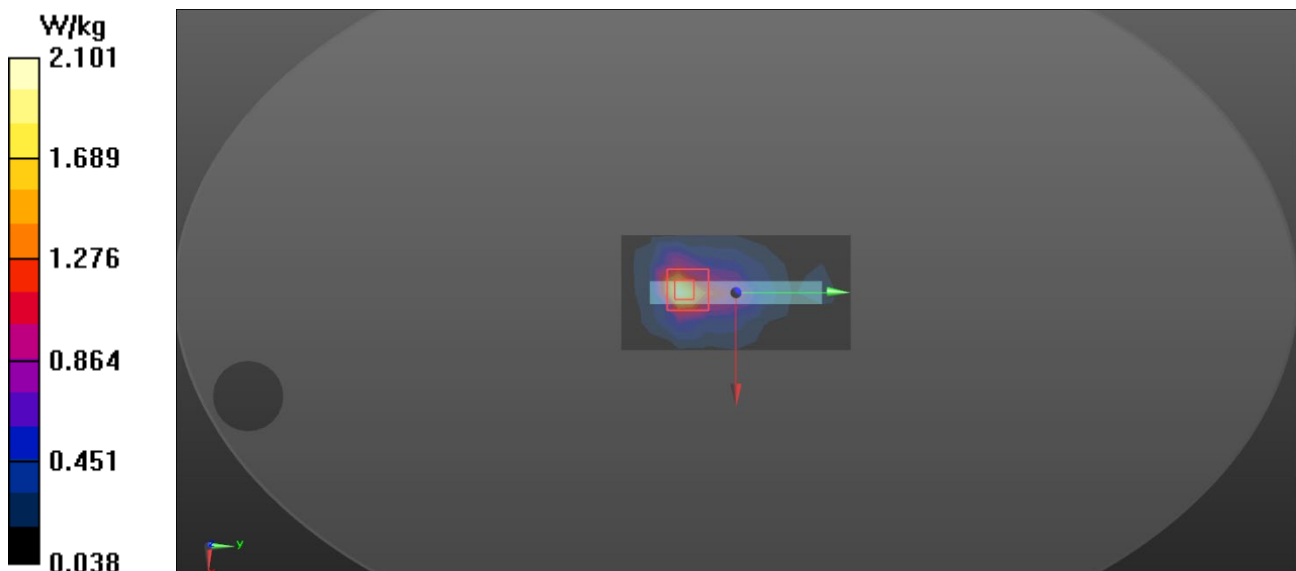
Zoom Scan (7x7x12)/Cube 0: Measurement grid: $dx=4$ mm, $dy=4$ mm, $dz=2$ mm

Reference Value = 14.26 V/m; Power Drift = -0.07 dB

Peak SAR (extrapolated) = 6.23 W/kg

SAR(1 g) = 1.18 W/kg; SAR(10 g) = 0.397 W/kg

Maximum value of SAR (measured) = 3.15 W/kg



Measurement Report for W49_802.11 ax 160_CH79_Vertical Front_5mm

Device under Test Properties

Model, Manufacturer	Dimensions [mm]	IMEI	DUT Type
Device,	76.0 x 30.0 x 14.0		Dongle

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity
Flat, HSL Head Simulating Liquid	Vertical Front, 5.00	U-NII-5	WLAN, AAC10763-	6345.000,79	5.6	5.77	34.5

Hardware Setup

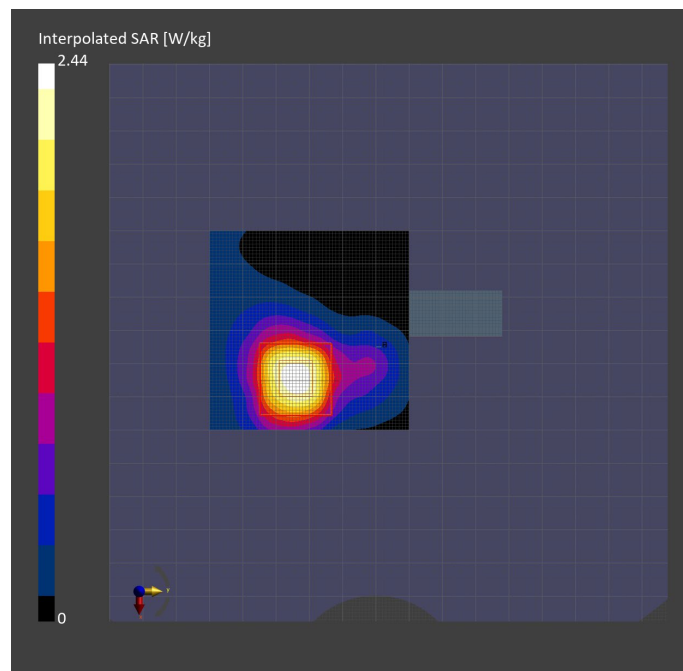
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V8.0 (30deg probe tilt) - 2081	HBBL-600-10000, Charge:0122,--	EX3DV4 - SN7693, 2024-11-20	DAE4 Sn1717, 2024-04-18

Scan Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	60.0 x 60.0	22.0 x 22.0 x 22.0
Grid Steps [mm]	10.0 x 10.0	3.4 x 3.4 x 1.4
Sensor Surface [mm]	1.4	1.4
Graded Grid	N/A	Yes
Grading Ratio	N/A	1.4
MAIA	Y	N/A
Surface Detection	VMS	VMS + 6p
Scan Method	Measured	Measured

Measurement Results

	Area Scan	Zoom Scan
Date	2025-04-02	2025-04-02
psSAR1g [W/kg]	0.552	0.605
psSAR10g [W/kg]	0.200	0.206
Power Drift [dB]	0.01	-0.02
Power Scaling	Disabled	Disabled
Scaling Factor [dB]		
TSL Correction	No correction	No correction
M2/M1 [%]		57.8
Dist 3dB Peak [mm]		10.0



Measurement Report for W57_802.11 be 160_CH111_Verical Front_5mm

Device under Test Properties

Model, Manufacturer Device,	Dimensions [mm]	IMEI	DUT Type
	76.0 x 30.0 x 14.0		Dongle

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity
Flat, HSL Head Simulating Liquid	Vertical Front, 5.00	U-NII-6	WLAN, AAC10763-	6505.000,111	5.6	6.08	34.0

Hardware Setup

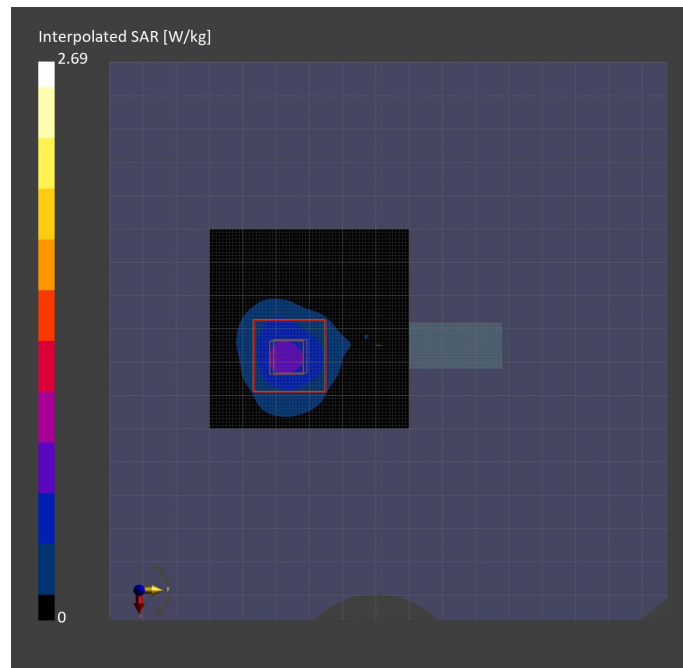
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V8.0 (30deg probe tilt) - 2081	HBBL-600-10000,Charge:0122,--	EX3DV4 - SN7693, 2024-11-20	DAE4 Sn1717, 2024-04-18

Scan Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	60.0 x 60.0	22.0 x 22.0 x 22.0
Grid Steps [mm]	10.0 x 10.0	3.4 x 3.4 x 1.4
Sensor Surface [mm]	1.4	1.4
Graded Grid	N/A	Yes
Grading Ratio	N/A	1.4
MAIA	Y	N/A
Surface Detection	VMS	VMS + 6p
Scan Method	Measured	Measured

Measurement Results

	Area Scan	Zoom Scan
Date	2025-04-02	2025-04-02
psSAR1g [W/kg]	0.599	0.638
psSAR10g [W/kg]	0.212	0.217
Power Drift [dB]	0.06	0.04
Power Scaling	Disabled	Disabled
Scaling Factor [dB]		
TSL Correction	No correction	No correction
M2/M1 [%]		57.0
Dist 3dB Peak [mm]		9.7



Measurement Report for W63_802.11 be 160_CH175_Vertical Front_5mm

Device under Test Properties

Model, Manufacturer	Dimensions [mm]	IMEI	DUT Type
Device,	76.0 x 30.0 x 14.0		Dongle

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity
Flat, HSL Head Simulating Liquid	Vertical Front, 5.00	U-NII-7	WLAN, AAC10763-	6825.000,175	5.6	6.39	33.6

Hardware Setup

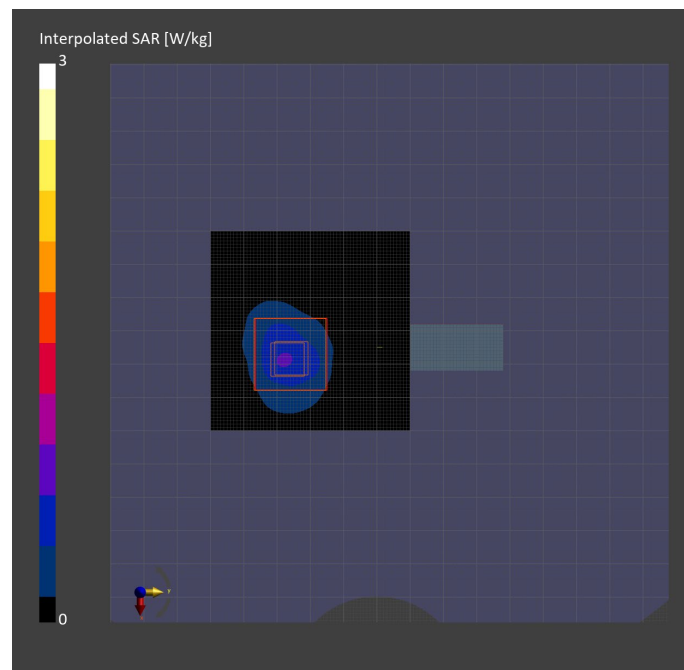
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V8.0 (30deg probe tilt) - 2081	HBBL-600-10000, Charge:0122,--	EX3DV4 - SN7693, 2024-11-20	DAE4 Sn1717, 2024-04-18

Scan Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	60.0 x 60.0	22.0 x 22.0 x 22.0
Grid Steps [mm]	10.0 x 10.0	3.4 x 3.4 x 1.4
Sensor Surface [mm]	1.4	1.4
Graded Grid	N/A	Yes
Grading Ratio	N/A	1.4
MAIA	Y	N/A
Surface Detection	VMS	VMS + 6p
Scan Method	Measured	Measured

Measurement Results

	Area Scan	Zoom Scan
Date	2025-04-02	2025-04-02
psSAR1g [W/kg]	0.626	0.663
psSAR10g [W/kg]	0.213	0.216
Power Drift [dB]	0.02	-0.01
Power Scaling	Disabled	Disabled
Scaling Factor [dB]		
TSL Correction	No correction	No correction
M2/M1 [%]		54.0
Dist 3dB Peak [mm]		8.8



Measurement Report for W70_802.11 ax 160_CH207_Vertical Back_5mm

Device under Test Properties

Model, Manufacturer	Dimensions [mm]	IMEI	DUT Type
Device,	76.0 x 30.0 x 14.0		Dongle

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity
Flat, HSL Head Simulating Liquid	Vertical Front, 5.00	U-NII-8	WLAN, AAC10763-	6985.000,207	5.6	6.69	33.2

Hardware Setup

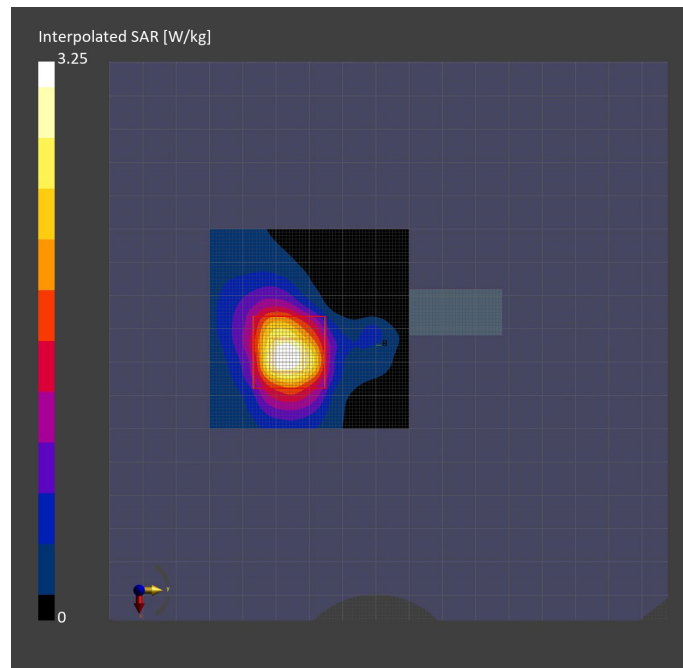
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V8.0 (30deg probe tilt) - 2081	HBBL-600-10000, Charge:0122,--	EX3DV4 - SN7693, 2024-11-20	DAE4 Sn1717, 2024-04-18

Scan Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	60.0 x 60.0	22.0 x 22.0 x 22.0
Grid Steps [mm]	10.0 x 10.0	3.4 x 3.4 x 1.4
Sensor Surface [mm]	1.4	1.4
Graded Grid	N/A	Yes
Grading Ratio	N/A	1.4
MAIA	Y	N/A
Surface Detection	VMS	VMS + 6p
Scan Method	Measured	Measured

Measurement Results

	Area Scan	Zoom Scan
Date	2025-04-02	2025-04-02
psSAR1g [W/kg]	0.660	0.688
psSAR10g [W/kg]	0.225	0.223
Power Drift [dB]	0.07	-0.05
Power Scaling	Disabled	Disabled
Scaling Factor [dB]		
TSL Correction	No correction	No correction
M2/M1 [%]		52.9
Dist 3dB Peak [mm]		9.0



Measurement Report for W49_802.11ax HE160_CH79_Vertical Front_5mm

Device under Test Properties

Model, Manufacturer	Dimensions [mm]	IMEI	DUT Type
Device	76.0 x 30.0 x 14.0		Dongle

Exposure Conditions

Phantom Section	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor
5G Air	Vertical Front, 5.00	U-NII-5	WLAN, 10763-AAC	6345.0, 79	1.0

Hardware Setup

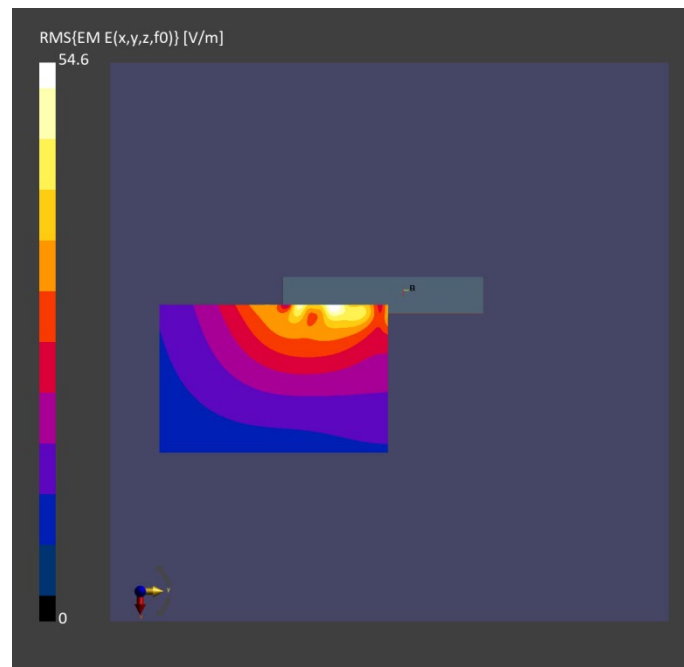
Phantom	Medium	Probe, Calibration Date	DAE, Calibration Date
mmWave- xxxx	---Air	EUmmWV4 - SN9503_F1-55GHz, 2024-11-11	DAE4 Sn1717, 2024-04-18

Scan Setup

	5G Scan	
Grid Extents [mm]	50.0 x	80.0
Grid Steps [lambda]	0.125 x	0.125
Sensor Surface [mm]		5.0
MAIA		Y

Measurement Results

	5G Scan
Date	2025-04-07
Avg. Area [cm ²]	4.00
psPDn+ [W/m ²]	1.06
psPDtot+ [W/m ²]	2.32
psPDmod+ [W/m ²]	3.19
E _{max} [V/m]	54.6
Power Drift [dB]	-0.02



Measurement Report for W57_802.11be HE160_CH111_Vertical Front_5mm

Device under Test Properties

Model, Manufacturer	Dimensions [mm]	IMEI	DUT Type
Device	76.0 x 30.0 x 14.0		Dongle

Exposure Conditions

Phantom Section	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor
5G Air	Vertical Front, 5.00	U-NII-6	WLAN, 10763-AAC	6505.0, 111	1.0

Hardware Setup

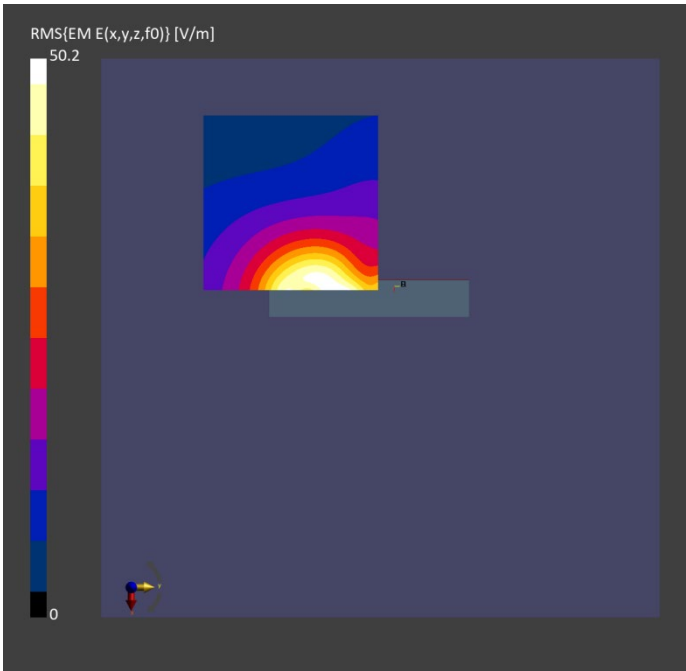
Phantom	Medium	Probe, Calibration Date	DAE, Calibration Date
mmWave- xxxx	---Air	EUmmWV4 - SN9503_F1-55GHz, 2024-11-11	DAE4 Sn1717, 2024-04-18

Scan Setup

	5G Scan	
Grid Extents [mm]	60.0 x	60.0
Grid Steps [lambda]	0.125 x	0.125
Sensor Surface [mm]		5.0
MAIA		Y

Measurement Results

	5G Scan
Date	2025-04-07
Avg. Area [cm ²]	4.00
psPDn+ [W/m ²]	0.849
psPDtot+ [W/m ²]	2.54
psPDmod+ [W/m ²]	2.99
E _{max} [V/m]	50.2
Power Drift [dB]	0.00



Measurement Report for W63_802.11be HE160_CH175_Vertical Front_5mm

Device under Test Properties

Model, Manufacturer	Dimensions [mm]	IMEI	DUT Type
Device	76.0 x 30.0 x 14.0		Dongle

Exposure Conditions

Phantom Section	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor
5G Air	Vertical Front, 5.00	U-NII-7	WLAN, 10763-AAC	6825.0, 175	1.0

Hardware Setup

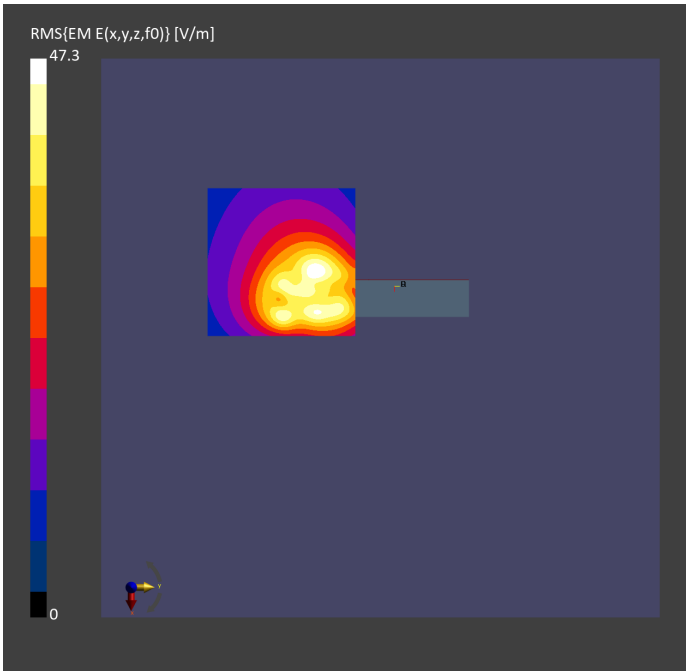
Phantom	Medium	Probe, Calibration Date	DAE, Calibration Date
mmWave- xxxx	---Air	EUmmWV4 - SN9503_F1-55GHz, 2024-11-11	DAE4 Sn1717, 2024-04-18

Scan Setup

	5G Scan	
Grid Extents [mm]	50.0 x	50.0
Grid Steps [lambda]	0.125 x	0.125
Sensor Surface [mm]		5.0
MAIA		Y

Measurement Results

	5G Scan
Date	2025-04-07
Avg. Area [cm ²]	4.00
psPDn+ [W/m ²]	2.66
psPDtot+ [W/m ²]	3.04
psPDmod+ [W/m ²]	3.12
E _{max} [V/m]	47.3
Power Drift [dB]	0.02



Measurement Report for W70_802.11be HE160_CH207_Vertical Front_5mm

Device under Test Properties

Model, Manufacturer	Dimensions [mm]	IMEI	DUT Type
Device	76.0 x 30.0 x 14.0		Dongle

Exposure Conditions

Phantom Section	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor
5G Air	Vertical Front, 5.00	U-NII-8	WLAN, 10763-AAC	6985.0, 207	1.0

Hardware Setup

Phantom	Medium	Probe, Calibration Date	DAE, Calibration Date
mmWave- xxxx	---Air	EUmmWV4 - SN9503_F1-55GHz, 2024-11-11	DAE4 Sn1717, 2024-04-18

Scan Setup

	5G Scan	
Grid Extents [mm]	50.0 x	50.0
Grid Steps [lambda]	0.125 x	0.125
Sensor Surface [mm]		5.0
MAIA		Y

Measurement Results

	5G Scan
Date	2025-04-07
Avg. Area [cm ²]	4.00
psPDn+ [W/m ²]	2.45
psPDtot+ [W/m ²]	2.86
psPDmod+ [W/m ²]	2.95
E _{max} [V/m]	46.4
Power Drift [dB]	-0.05

