

#### Head TSL parameters at 5300 MHz

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		0110111	ing pr	GIGII	101010	OT 10	CONCO	10110110	nerer	applied.	

	Temperature	Permittivity	Conductivity
Nominal Head TSL parameters	22.0 °C	35.9	4.76 mho/m
Measured Head TSL parameters	(22.0 ± 0.2) °C	35.5 ± 6 %	4.67 mho/m ± 6 %
Head TSL temperature change during test	< 0.5 °C		

#### SAR result with Head TSL at 5300 MHz

SAR averaged over 1 cm <sup>3</sup> (1 g) of Head TSL	Condition	
SAR measured	100 mW input power	8.02 W/kg
SAR for nominal Head TSL parameters	normalized to 1W	80.0 W/kg ± 19.9 % (k=2)
SAR averaged over 10 cm <sup>3</sup> (10 g) of Head TSL	condition	
SAR averaged over 10 cm <sup>3</sup> (10 g) of Head TSL SAR measured	condition 100 mW input power	2.30 W/kg

# Head TSL parameters at 5500 MHz

The following parameters and calculations were applied.

	Temperature	Permittivity	Conductivity
Nominal Head TSL parameters	22.0 °C	35.6	4.96 mho/m
Measured Head TSL parameters	(22.0 ± 0.2) °C	35.4 ± 6 %	4.89 mho/m ± 6 %
Head TSL temperature change during test	< 0.5 °C		

# SAR result with Head TSL at 5500 MHz

SAR averaged over 1 cm <sup>3</sup> (1 g) of Head TSL	Condition	
SAR measured	100 mW input power	8.18 W/kg
SAR for nominal Head TSL parameters	normalized to 1W	81.7 W/kg ± 19.9 % (k=2)
SAR averaged over 10 cm <sup>3</sup> (10 g) of Head TSL	condition	
SAR averaged over 10 cm <sup>3</sup> (10 g) of Head TSL SAR measured	condition 100 mW input power	2.33 W/kg

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Conductivity 5.07 mho/m

4.97 mho/m ± 6 %

# Head TSL parameters at 5600 MHz

he following parameters and calculations were	applied.		
	Temperature	Permittivity	
Nominal Head TSL parameters	22.0 °C	35.5	
Measured Head TSL parameters	(22.0 ± 0.2) °C	35.3 ± 6 %	4

Head TSL temperature change during test		< 0.5 °C
	1	- 0.0 0

# SAR result with Head TSL at 5600 MHz

SAR averaged over 1 cm <sup>3</sup> (1 g) of Head TSL	Condition	
SAR measured	100 mW input power	8.20 W/kg
SAR for nominal Head TSL parameters	normalized to 1W	81.8 W/kg ± 19.9 % (k=2)
SAR averaged over 10 cm <sup>3</sup> (10 g) of Head TSI	condition	
	condition	2.34 W/kg
SAR averaged over 10 cm <sup>3</sup> (10 g) of Head TSL SAR measured SAR for nominal Head TSL parameters	condition 100 mW input power	2

#### Head TSL parameters at 5800 MHz

The following parameters and calculations were applied.

	Temperature	Permittivity	Conductivity
Nominal Head TSL parameters	22.0 °C	35.3	5.27 mho/m
Measured Head TSL parameters	(22.0 ± 0.2) °C	35.0 ± 6 %	5.11 mho/m ± 6 %
Head TSL temperature change during test	< 0.5 °C		

#### SAR result with Head TSL at 5800 MHz

SAR averaged over 1 cm <sup>3</sup> (1 g) of Head TSL	Condition	
SAR measured	100 mW input power	7.93 W/kg
SAR for nominal Head TSL parameters	normalized to 1W	79.0 W/kg ± 19.9 % (k=2)
1		- 1 1
SAR averaged over 10 cm <sup>3</sup> (10 g) of Head TSL	condition	
SAR averaged over 10 cm <sup>3</sup> (10 g) of Head TSL SAR measured	condition 100 mW input power	2.24 W/kg

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#### Appendix (Additional assessments outside the scope of SCS 0108)

#### Antenna Parameters with Head TSL at 5200 MHz

Impedance, transformed to feed point	47.9 Ω - 9.2 jΩ
Return Loss	- 20.4 dB

# Antenna Parameters with Head TSL at 5300 MHz

Impedance, transformed to feed point	48.7 Ω - 4.6 jΩ
Return Loss	- 26.3 dB

#### Antenna Parameters with Head TSL at 5500 MHz

Impedance, transformed to feed point	47.5 Ω - 5.2 jΩ
Return Loss	- 24.6 dB

#### Antenna Parameters with Head TSL at 5600 MHz

Impedance, transformed to feed point	52.1 Ω - 5.3 jΩ
Return Loss	- 25.0 dB

#### Antenna Parameters with Head TSL at 5800 MHz

Impedance, transformed to feed point	51.8 Ω - 4.2 jΩ
Return Loss	- 27.0 dB

#### General Antenna Parameters and Design

After long term use with 100W radiated power, only a slight warming of the dipole near the feedpoint can be measured.

The dipole is made of standard semirigid coaxial cable. The center conductor of the feeding line is directly connected to the second arm of the dipole. The antenna is therefore short-circuited for DC-signals. On some of the dipoles, small end caps are added to the dipole arms in order to improve matching when loaded according to the position as explained in the "Measurement Conditions" paragraph. The SAR data are not affected by this change. The overall dipole length is still according to the Standard.

No excessive force must be applied to the dipole arms, because they might bend or the soldered connections near the feedpoint may be damaged.

#### Additional EUT Data

SPEAG

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#### DASY5 Validation Report for Head TSL

Date: 06.06.2023

Test Laboratory: SPEAG, Zurich, Switzerland

DUT: Dipole D5GHzV2; Type: D5GHzV2; Serial: D5GHzV2 - SN:1291

Communication System: UID 0 - CW; Frequency: 5200 MHz, Frequency: 5300 MHz, Frequency: 5500 MHz, Frequency: 5600 MHz, Frequency: 5800 MHz Medium parameters used: f = 5200 MHz;  $\sigma = 4.53$  S/m;  $\varepsilon_r = 35.5$ ;  $\rho = 1000$  kg/m<sup>3</sup>, Medium parameters used: f = 5300 MHz;  $\sigma = 4.67$  S/m;  $\varepsilon_r = 35.5$ ;  $\rho = 1000$  kg/m<sup>3</sup>, Medium parameters used: f = 5500 MHz;  $\sigma = 4.89$  S/m;  $\varepsilon_r = 35.4$ ;  $\rho = 1000$  kg/m<sup>3</sup>, Medium parameters used: f = 5600 MHz;  $\sigma = 4.97$  S/m;  $\varepsilon_r = 35.3$ ;  $\rho = 1000$  kg/m<sup>3</sup>, Medium parameters used: f = 5600 MHz;  $\sigma = 5.11$  S/m;  $\varepsilon_r = 35.3$ ;  $\rho = 1000$  kg/m<sup>3</sup> Medium parameters used: f = 5800 MHz;  $\sigma = 5.11$  S/m;  $\varepsilon_r = 35$ ;  $\rho = 1000$  kg/m<sup>3</sup>

DASY52 Configuration:

- Probe: EX3DV4 SN3503; ConvF(5.8, 5.8, 5.8) @ 5200 MHz, ConvF(5.49, 5.49, 5.49) @ 5300 MHz, ConvF(5.25, 5.25, 5.25) @ 5500 MHz, ConvF(5.1, 5.1, 5.1) @ 5600 MHz, ConvF(5.01, 5.01, 5.01) @ 5800 MHz; Calibrated: 07.03.2023
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn601; Calibrated: 19.12.2022
- Phantom: Flat Phantom 5.0 (front); Type: QD 000 P50 AA; Serial: 1001
- DASY52 52.10.4(1535); SEMCAD X 14.6.14(7501)

Dipole Calibration for Head Tissue/Pin=100mW, dist=10mm, f=5200 MHz/Zoom Scan, dist=1.4mm (8x8x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm Reference Value = 73.94 V/m; Power Drift = 0.07 dB Peak SAR (extrapolated) = 26.6 W/kg SAR(1 g) = 7.66 W/kg; SAR(10 g) = 2.2 W/kg Smallest distance from peaks to all points 3 dB below = 7.4 mm Ratio of SAR at M2 to SAR at M1 = 70.7% Maximum value of SAR (measured) = 17.2 W/kg

Dipole Calibration for Head Tissue/Pin=100mW, dist=10mm, f=5300 MHz/Zoom Scan, dist=1.4mm (8x8x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm Reference Value = 74.72 V/m; Power Drift = 0.03 dB Peak SAR (extrapolated) = 27.8 W/kg SAR(1 g) = 8.02 W/kg; SAR(10 g) = 2.3 W/kg Smallest distance from peaks to all points 3 dB below = 7.4 mm Ratio of SAR at M2 to SAR at M1 = 70.8% Maximum value of SAR (measured) = 18.1 W/kg

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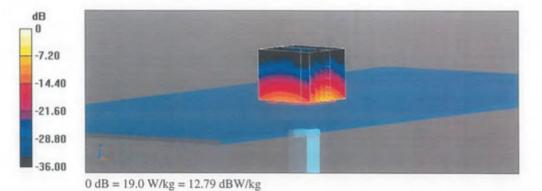
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Dipole Calibration for Head Tissue/Pin=100mW, dist=10mm, f=5500 MHz/Zoom Scan, dist=1.4mm (8x8x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm Reference Value = 74.08 V/m; Power Drift = 0.03 dB Peak SAR (extrapolated) = 30.7 W/kg SAR(1 g) = 8.18 W/kg; SAR(10 g) = 2.33 W/kg Smallest distance from peaks to all points 3 dB below = 7.4 mm Ratio of SAR at M2 to SAR at M1 = 68.1% Maximum value of SAR (measured) = 18.9 W/kg

Dipole Calibration for Head Tissue/Pin=100mW, dist=10mm, f=5600 MHz/Zoom Scan, dist=1.4mm (8x8x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm Reference Value = 75.16 V/m; Power Drift = 0.03 dB Peak SAR (extrapolated) = 29.8 W/kg SAR(1 g) = 8.2 W/kg; SAR(10 g) = 2.34 W/kg Smallest distance from peaks to all points 3 dB below = 7.4 mm Ratio of SAR at M2 to SAR at M1 = 69% Maximum value of SAR (measured) = 19.0 W/kg

Dipole Calibration for Head Tissue/Pin=100mW, dist=10mm, f=5800 MHz/Zoom Scan, dist=1.4mm (8x8x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm Reference Value = 72.36 V/m; Power Drift = 0.03 dB Peak SAR (extrapolated) = 30.8 W/kg SAR(1 g) = 7.93 W/kg; SAR(10 g) = 2.24 W/kg Smallest distance from peaks to all points 3 dB below = 7.5 mm Ratio of SAR at M2 to SAR at M1 = 67% Maximum value of SAR (measured) = 18.8 W/kg



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# Impedance Measurement Plot for Head TSL

					-	/			15	5.2	00000 GHz	47.001 Q
					X	/	1	A	2		3.3352 pF	-9.1768 0
					( )	× /	+	11	2	0.4	00000 GHz 6.5568 pF	48,669 0
				4	- /	X	X	21	> 3:	5.5	00000 GHz	47,500 0.
				1	1	4	XX	TA	4	5.6	5.5937 pF 00000 GHz	-5.1732 D 52.054 D
				6	1		T	780			5.3292 pF	-5.3330 12
				1	1	1	T	70	5;	5.8	6.5359 p.F	51,758 Q
Ch1: S	Ch 1 Avg = turt 5.00000		-	_	×			~		23		6.00000 GHz
-					×				1.000	5.5	Stop 00000 GHz 00000 GHz 00000 GHz 00000 GHz	6.00000 GHz -20.073 dB -24.606 dB -25.040 dB -25.040 dB -25.040 dB
10.00 5.00 0.00 -5.00	tart 5.00000		-		~				3:	5.5	00000 GHz 00000 GHz 00000 GHz 00000 GHz	-20.070 dB 25.024 dB -24.666 dB -25.046 dB
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Engineering AG Zeughausstrasse 43, 8004 Zurich,	f Of Switzerland	Hac MRA	S Schweizerischer Kalibrierdienst Service suisse d'étalonnage Servizio svizzero di taratura Swiss Calibration Service
Accredited by the Swiss Accreditation The Swiss Accreditation Service in Multilateral Agreement for the rec	is one of the signatori	ies to the EA	ccreditation No.: SCS 0108
Client TÜV SÜD Fareham, United Ki		Certificate No	. D6.5GHzV2-1071_Jul23
CALIBRATION C	ERTIFICAT	E	
Object	D6.5GHzV2 - SI	N:1071	
Calibration procedure(s)	QA CAL-22.v7 Calibration Proc	edure for SAR Validation Source	es between 3-10 GHz
Calibration date:	July 06, 2023		
The measurements and the uncerta	inties with confidence p	lional standards, which realize the physical un probability are given on the following pages a my facility: environment temperature (22 ± 3) <sup>6</sup>	nd are part of the certificate.
The measurements and the uncerta All calibrations have been conducted Calibration Equipment used (M&TE	inties with confidence p d in the closed laborato critical for calibration)	probability are given on the following pages along facility: environment temperature $(22\pm3)^{\circ}$	nd are part of the certificate. 'C and humidity < 70%.
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Calibration Laboratory of Schmid & Partner Engineering AG Zoughausstrasse 43, 8004 Zurich, Switzerland



S Schweizerischer Kalibrierdienst Service suisse d'étalonnage

- C Service suisse d'étalonnage Servizio svizzero di taratura
- S Swiss Calibration Service

Accreditation No.: SCS 0108

Accredited by the Swiss Accreditation Service (SAS)

The Swiss Accreditation Service is one of the signatories to the EA Multilateral Agreement for the recognition of calibration certificates

# Glossary:

TSL	tissue simulating liquid
ConvF	sensitivity in TSL / NORM x,y,z
N/A	not applicable or not measured

# Calibration is Performed According to the Following Standards:

 a) IEC/IEEE 62209-1528, "Measurement Procedure For The Assessment Of Specific Absorption Rate Of Human Exposure To Radio Frequency Fields From Hand-Held And Body-Worn Wireless Communication Devices - Part 1528: Human Models, Instrumentation And Procedures (Frequency Range Of 4 MHz To 10 GHz)", October 2020.

#### Additional Documentation:

b) DASY System Handbook

# Methods Applied and Interpretation of Parameters:

- Measurement Conditions: Further details are available from the Validation Report at the end of the certificate. All figures stated in the certificate are valid at the frequency indicated.
- Antenna Parameters with TSL: The dipole is mounted with the spacer to position its feed point exactly below the center marking of the flat phantom section, with the arms oriented parallel to the body axis.
- Feed Point Impedance and Return Loss: These parameters are measured with the dipole positioned under the liquid filled phantom. The impedance stated is transformed from the measurement at the SMA connector to the feed point. The Return Loss ensures low reflected power. No uncertainty required.
- SAR measured: SAR measured at the stated antenna input power.
- SAR normalized: SAR as measured, normalized to an input power of 1 W at the antenna connector.
- SAR for nominal TSL parameters: The measured TSL parameters are used to calculate the nominal SAR result.
- The absorbed power density (APD): The absorbed power density is evaluated according to Samaras T, Christ A, Kuster N, "Compliance assessment of the epithelial or absorbed power density above 6 GHz using SAR measurement systems", Bioelectromagnetics, 2021 (submitted). The additional evaluation uncertainty of 0.55 dB (rectangular distribution) is considered.

The reported uncertainty of measurement is stated as the standard uncertainty of measurement multiplied by the coverage factor k=2, which for a normal distribution corresponds to a coverage probability of approximately 95%.

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#### Measurement Conditions

DASY system configuration, as to takinot given on page 1.

DASY Version	DASYû	V*6.2
Extrapolation	Advanced Extrapolation	
Phantom	Vodular F/at Phaniom	· · · · · · · · · · · · · · · · · · ·
Distance Dipole Center - TSL	5 <b>i</b> tim	with Spacer
Zoom Scen Resolution	ox, dy ≂ 3.4 mm, dz = 1.4 mm	Graded Rolio = 1.4 (Zidirection)
Frequency	ô5C0 MHz ± 1 MHz	

#### Head TSL parameters

The following parameters and calculations were applied

	Temperature	Permittivity	Conductivity
Nominal Head TSL parameters	22.0 °C	34.5	6.07 mhc/m
Measured Head TSL parameters	(22.0 ± 0.2) °C	33.5 ± 6 %	5.88 mino/m ± 6 %
Head TSL temperature change during test	<0.5°C		

#### SAR result with Head TSL

SAR averaged over 1 cm <sup>3</sup> {1 g} of Head TSL	Condition	
SAR measured	100 mW input power	29.4 W/kg
SAR for nominal Head TSL parameters	normalized to 1W	292 W/kg ± 24.7 % (k=2)
SAR averaged over 8 cm <sup>2</sup> (8 g) of Hoad TSL	Condition	
SAR measured	100 mW input power	
SAR for nominal Head TS1 parameters	normalized to 1W	66.1 W/kg ± 24.4 % (k=2)
SAR averaged over 10 cm <sup>3</sup> (10 g) of Head TSL	condition	
SAR measured	100 mW input power	5.46 W/kg
SAR for nominal Head TSL parameters	normatized to 1W	54.2 W/kg ± 24.4 % (ke2)

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#### Appendix

#### Antenna Parameters with Head TSL

Impedance, transformed to feed point			<u> </u>	 
ingeodrice, dansiensen jolieen paint	<u> </u>		48.0 Ω - 1.7 jO	
Return Loss			- 31 5 cB	 —
		<u> </u>		 

# APD (Absorbed Power Density)

APD averaged over 1 cm <sup>2</sup>	Condition	
APD measured	100 mW input powe;	292 W/m²
APD measured	normalized to 1W	2920 W/m² ± 29.2 % (k=2)
APD averaged over 4 cm <sup>2</sup>	cond for	
APD averaged over 4 cm <sup>2</sup>	Condition	133 W/m²

"The reported APD values have been derived using the psSAR1g and psSAR5g.

#### General Antenna Parameters and Design

After long term use with 100W raciated power, only a slight warming of the cipole near the feedpoint can be measured.

The dipole is made of standard semirigid coaxial cable. The center conductor of the faeding line is directly connected to the second arm of the dipole. The antenna is therefore short-circuited for DC-signals. On some of the dipole, small end caps are added to the dipole arms in order to improve matching when loaded according to the position as explained in the "Measurement Conditions" paragraph. The SAR data are not affected by this change. The overall dipole longth is still according to the Standard.

No excessive force must be applied to the diod's arms, because they might bend or the soldered connections rear the feedpoint may be damaged.

#### Additional EUT Data

Manufactured by SPEAG

Certificate No: D6.5GHzV2-1071\_Ju:23

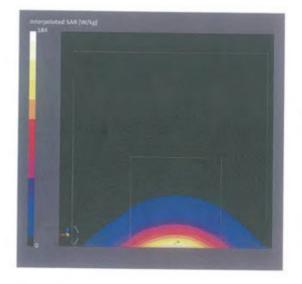
Plage 4 of 6



# DASY6 Validation Report for Head TSL

Measurement Report for D6.5GHz-1071, UID 0 -, Channel 6500 (6500.0MHz)

Name, Manuf	acturer Di	imensions	[mm] IN	AEI	DUT Typ	e	
D6.5GHz	1	0.0 x 10.0	x 10.0 SI	N: 1029	-		
Exposure Cond	ditions						
Phantom	Position, Test	Band	Group,	Frequency	Conversion	TSL Cond.	TSL
Section, TSL	Distance [mm]		UID	[MHz]	Factor	[S/m]	Permittivity
Flat, HSL	5.00	Band	CW,	6500	5.50	5.88	33.5
Hardware Setu	qu						
Phantom	TS	SL.		Prohe Calil	bration Date	DAG Callb	
MFP V8.0 Cent	er - 1182 H	BBL600-10	0000/6		17405, 2023-06-12		oration Date 08, 2023-07-03
Scan Setup				Measureme	nt Results		
			Zoom Scan				Zoom Scan
Grid Extents [			22.0 x 22.0 x 22.0	Date		20	023-07-20, 13:28
Grid Steps [m			3.4 x 3.4 x 1.4	psSAR1g [\	N/Kg]		29.4
Sensor Surfac	e [mm]		1.4	psSAR8g [\	N/Kg]		6.66
Graded Grid			Yes	psSAR10g	[W/Kg]		5.46
Grading Ratio MAIA			1.4	Power Drif			0.01
Surface Detec	1		N/A	Power Scal			Disabled
Scan Method	don		VMS + 6p	Scaling Fac			
Scarriviethod			Measured	TSL Correct			No correction
				M2/M1 [%			51.3
				Dist 3dB Pe	eak [mm]		4.8

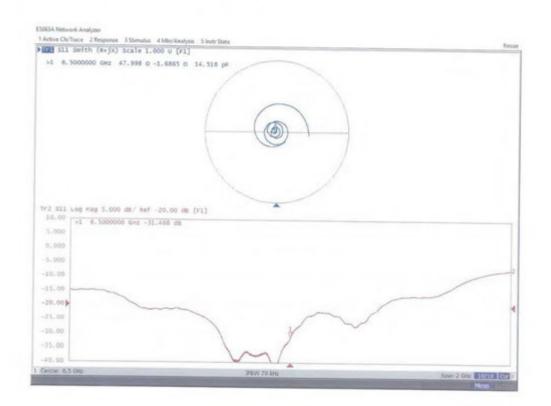


Certificate No: D6.5GHzV2-1071\_Jul23

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Impedance Measurement Plot for Head TSL



Certificate No: D6.5GHzV2-1071\_Jul23

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		preditation No.: SCS 0108	
and the second			
dom	Certificate No.	5G-Veri10-1053_Oct2:	
RTIFICATE			
5G Verification S	ource 10 GHz - SN: 1053		
QA CAL-45.v4 Calibration procedure for sources in air above 6 GHz			
October 27, 2023	3		
ID # SN: 9374	Cal Date (Certificate No.) 22-May-23 (No. EUmm-9374_May23)	Scheduled Calibration May-24 Jul-24	
1 514. 1002	05-501-23 (NO. DAE410-1602_50123)	501-24	
ID #	Check Date (in house)	Scheduled Check	
SN: 100184 SN: 101258 SN: MY54504221	19-May-22 (in house check Nov-22) 31-May-22 (in house check Nov-22) 31-Oct-19 (in house check Oct-22)	In house check: Nov-23 In house check: Nov-23 In house check: Oct-25	
Name	Function	Signature	
	Laboratory Technician	inhillert.	
Joanna Lleshaj		Office )	
Sven Kühn	Technical Manager	()	
	anition of calibration SG Verification SG Verification SG QA CAL-45.v4 Calibration processor of the traceability to nationate with confidence point of the closed laborato critical for calibration) D # SN: 9374 SN: 1602 ID # SN: 100184 SN: 101258	certificate signatories to the EA         gnition of calibration certificates         certificate No.         pdom         Certificate No.         SG Verification Source 10 GHz - SN: 1053         GA CAL-45.v4         Calibration procedure for sources in air above 6 GI         October 27, 2023         Is the traceability to national standards, which realize the physical unit nities with confidence probability are given on the following pages and the confidence probability are given on the following pages and the confidence probability: environment temperature (22 ± 3)*C         Certifical for calibration)         ID #       Cal Date (Certificate No.)         SN: 9374       22-May-23 (No. EUmm-9374_May23)         SN: 1602       05-Jul-23 (No. DAE4ip-1602_Jul/23)         ID #         Check Date (in house)         SN: 100184       19-May-22 (in house check Nov-22)         SN: 101258       31-May-22 (in house check Nov-22)	

Certificate No: 5G-Veri10-1053\_Oct23

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CW



#### Calibration Laboratory of Schmid & Partner Engineering AG Zeughausstrasse 43, 8004 Zurich, Switzerland



Schweizerischer Kalibrierdienst Service suisse d'étalonnage Servizio svizzero di taratura Swiss Calibration Service

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Accreditation No.: SCS 0108

Glossarv Accredited by the Swiss Accreditation Service (SAS) The Swiss Accreditation Service is one of the signatories to the EA Multilateral Agreement for the recognition of calibration certificates

Continuous wave

#### Calibration is Performed According to the Following Standards

- Internal procedure QA CAL-45, Calibration procedure for sources in air above 6 GHz.
- IEC/IEEE 63195-1, "Assessment of power density of human exposure to radio frequency fields from wireless devices in close proximity to the head and body (frequency range of 6 GHz to 300 GHz)", May 2022

#### Methods Applied and Interpretation of Parameters

- Coordinate System: z-axis in the waveguide horn boresight, x-axis is in the direction of the E-field, y-axis normal to the others in the field scanning plane parallel to the horn flare and horn flange.
- Measurement Conditions: (1) 10 GHz: The radiated power is the forward power to the horn antenna minus ohmic and mismatch loss. The forward power is measured prior and after the measurement with a power sensor. During the measurements, the horn is directly connected to the cable and the antenna ohmic and mismatch losses are determined by farfield measurements. (2) 30, 45, 60 and 90 GHz. The verification sources are switched on for at least 30 minutes. Absorbers are used around the probe cub and at the ceiling to minimize reflections.
- Horn Positioning: The waveguide horn is mounted vertically on the flange of the waveguide source to allow vertical positioning of the EUmmW probe during the scan. The plane is parallel to the phantom surface. Probe distance is verified using mechanical gauges positioned on the flare of the horn.
- E- field distribution: E field is measured in two x-y-plane (10mm, 10mm +  $\lambda$ /4) with a vectorial E-field probe. The E-field value stated as calibration value represents the E-fieldmaxima and the averaged (1cm<sup>2</sup> and 4cm<sup>2</sup>) power density values at 10mm in front of the horn
- Field polarization: Above the open horn, linear polarization of the field is expected. This is verified graphically in the field representation.

#### **Calibrated Quantity**

Local peak E-field (V/m) and average of peak spatial components of the poynting vector (W/m<sup>2</sup>) averaged over the surface area of 1 cm<sup>2</sup> and 4cm<sup>2</sup> at the nominal operational frequency of the verification source. Both square and circular averaging results are listed.

The reported uncertainty of measurement is stated as the standard uncertainty of measurement multiplied by the coverage factor k=2, which for a normal distribution corresponds to a coverage probability of approximately 95%.

Certificate No: 5G-Veri10-1053 Oct23

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Measurement Conditions DASY system configuration, as far as not given on page 1.

DASY Version	DASY8 Module mmWave	V3.2
Phantom	5G Phantom	
Distance Horn Aperture - plane	10 mm	
Number of measured planes	2 (10mm, 10mm + X4)	
Frequency	10 GHz ± 10 MHz	

# Calibration Parameters, 10 GHz

Circular Avera	ging	
Distance Ham	Deneff	

Distance Horn Aperture to Measured Plane	Prad <sup>®</sup> (mW)	Max E-field (V/m)	(k = 2)	Avg Power Density Avg (psPDn+, psPDiol+, psPDmod+) (W/m <sup>2</sup> )		Uncertainty (k = 2)
				1 cm <sup>2</sup>	4 cm <sup>2</sup>	
10 mm	93.3	155	1.27 dB	62.1	57.8	1.28 dB

Distance Horn Aperture to Measured Plane	Prad <sup>i</sup> (mW)	Max E-field (V/m)	Uncertainty (k = 2)	Power Density psPDn+, psPDtot+, psPDmod+ (W/m <sup>2</sup> )		Uncertainty (k = 2)
				1 cm <sup>2</sup>	4 cm <sup>2</sup>	
10 mm	93.3	155	1.27 dB	61.9, 62.0, 62.3	57.5, 57.8, 58.1	1.28 dB

#### Square Averaging

Distance Horn Aperture to Measured Plane	Prad <sup>1</sup> Max E-field (mW) (V/m)		Uncertainty (k = 2)	Avg Power Density Avg (psPDn+, psPDtoi+, psPDmod+) (W/m <sup>2</sup> )		Uncertainty (k = 2)
				1 cm <sup>2</sup>	4 cm <sup>2</sup>	
10 mm	93.3	155	1.27 dB	62.0	57.7	1.28 dB

Aperture to Measured Plane	(mW)	(V/m)	(k = 2)	psPDn+, psPDtot+, psPDmod+ (W/m²)		(k = 2)
				1 cm <sup>2</sup>	4 cm <sup>2</sup>	
10 mm	93.3	155	1.27 dB	61.8, 62.0, 62.3	57.4, 57.7, 58.0	1.28 dB

#### Max Power Density

Distance Horn Aperture to Measured Plane	Prad <sup>e</sup> (mW)	Max E-field (V/m)	Uncertainty (k = 2)	Max Power Density Sn, Stot, [Stot] (W/m <sup>2</sup> )	Uncertainty (k = 2)
10 mm	93.3	155	1.27 dB	63.5, 63.6, 63.6	1.28 dB

Certificate No: 5G-Ven10-1053\_Oct23

<sup>&</sup>lt;sup>1</sup> Assessed ohmic and mismatch loss plus numerical offset: 0.30 dB

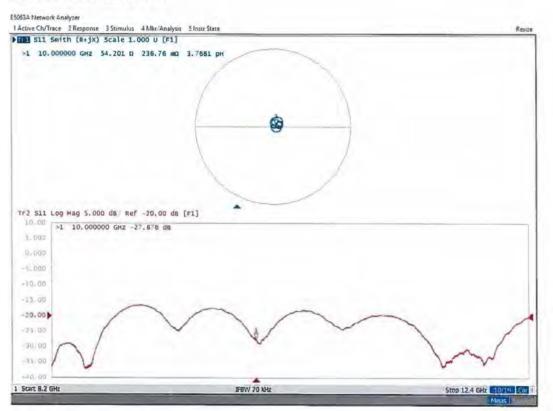


# Appendix (Additional assessments outside the scope of SCS 0108)

#### Antenna Parameters

Impedance, transformed to feed point	54.2 Ω + 0.24 jΩ		
Return Loss	- 27.9 dB		

#### Impedance Measurement Plot



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Measurement Report for 5G Verification Source 10 GHz, UID 0 -, Channel 10000 (10000.0MHz)

Device under Test Prop Name, Manufacturer	Dimensions (mr		IME	DUT Type	
5G Verification Source 10 G			SN: 1053	-	
Exposure Conditions					
Phantom Section	Position, Test Distance [mm]	Band	Group,	Frequency [MHz], Channel Number	Conversion Factor
5G -	10.0 mm	Validation band	cw	10000.0, 10000	1.0
Hardware Setup					
Phantom mmWave Phantom - 1002	Medium Air		Probe, Calibr EUmmWV3 - 2023-05-22	ration Date 5N9374_F1-55GHz,	DAE, Calibration Date DAE4ip Sn1602, 2023-07-05
Scan Setup			Measuren	nent Results	
		5G Se	an		5G Scan
Sensor Surface (mm)			0.0 Date		2023-10-27, 09:25
MAIA		MAIA not us		cm <sup>2</sup> ]	1.00
			Avg. Type		Circular Averaging
			psPDn+ [W		61.9
			psPDtot+ [		62.0
			psPDmod+ Max(Sn) (V		62.3
			Max(Stot)		63.6
			Max(Stot)		63.6
			Emax [V/m]		155
			Power Drift	t [dB]	-0.02



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Measurement Report for 5G Verification Source 10 GHz, UID 0 -, Channel 10000 (10000.0MHz)

Device under Test Prop					
Name, Manufacturer	Dimensions (mm		IMEI	DUT Type	
5G Verification Source 10 G	Hz 100.0 x 100.0 x 1	172.0	SN: 1053		
Exposure Conditions					
Phantom Section	Position, Test Distance [mm]	Band	Group,	Frequency (MHz), Channel Number	Conversion Factor
5G -	10.0 mm	Validation band	cw	10000.0, 10000	1.0
Hardware Setup					
Phantom	Medium		Probe, Calib	ration Date	DAE, Calibration Date
mmWave Phantom - 1002	Air		EUmmWV3 - 2023-05-22	SN9374_F1-55GHz,	DAE4ip 5n1602, 2023-07-05
Scan Setup				nent Results	
		5G 5			5G Scan
Sensor Surface [mm]			0.0 Date	-	2023-10-27, 09:25
MAIA		MAIA not u		cm²)	4.00
			Avg. Type		Circular Averaging
			psPDn+ [W		57.5
			psPDtot+ [		57.8
			psPDmod+		58.1
			Max(Sn) [V Max(Stot)		63.5 63.6
			Max(Stot)		63.6
			Emax [V/m]		155
			Cmax [V/mi]		10:



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Measurement Report for 5G Verification Source 10 GHz, UID 0 -, Channel 10000 (10000.0MHz)

evice under Test Prop	perties				
Name, Manufacturer	Dimensions (m	m]	IMEI	DUT Type	
5G Verification Source 10 G	5Hz 100.0 x 100.0 x	172.0	SN: 1053	4.5	
Exposure Conditions					
Phantom Section	Position, Test Distance [mm]	Band	Group,	Frequency (MHz), Channel Number	Conversion Factor
5G -	10.0 mm	Validation band	CW	10000.0, 10000	1.0
Hardware Setup					
Phantom	Medium		Probe, Calib	ration Date	DAE, Calibration Date
mmWave Phantom - 1002	Air		EUmmWV3 2023-05-22	- SN9374_F1-55GHz,	DAE4ip Sn1602, 2023-07-05
Scan Setup			Measurer	ment Results	
		5G S	can		5G Sca
Sensor Surface [mm]		1	0.0 Date		2023-10-27, 09:2
MAIA		MAIA not us		[cm <sup>2</sup> ]	1.0
			Avg. Type		Square Averagin
			psPDn+ JW		61.
			psPDtot+ [		62.
			psPDmod4		62.
			Max(Sn) (V Max(Stot)		63.
			Max(Stot)		63.
			Emax [V/m]		15
			Power Drit		-0.0



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Measurement Report for 5G Verification Source 10 GHz, UID 0 -, Channel 10000 (10000.0MHz)

Device under Test Prop					
Name, Manufacturer	Dimensions [m	m] (	MEL	DUT Type	
5G Verification Source 10 G	5Hz 100.0 x 100.0 x	172.0	SN: 1053		
Exposure Conditions					
Phantom Section	Position, Test Distance [mm]	Band	Group,	Frequency [MHz], Channel Number	Conversion Factor
5G -	10.0 mm	Validation band	cw	10000.0, 10000	1.0
Hardware Setup					
Phantom	Medium		Probe, Calib	ration Date	DAE, Calibration Date
mmWave Phantom - 1002	Air		EUmmWV3	- SN9374_F1-55GHz,	DAE4ip Sn1602,
			2023-05-22		2023-07-05
Scan Setup			Measurer	nent Results	
		5G Sc	an		5G Scan
Sensor Surface (mm)		1	D.O Date		2023-10-27, 09:25
MAIA		MAIA not us		[cm <sup>2</sup> ]	4.00
			Avg. Type		Square Averaging
			psPDn+ (W	//m²]	57.4
			psPDtot+ [	W/m <sup>2</sup> ]	57.7
			psPDmod+	- [W/m <sup>2</sup> ]	58.0
			Max(Sn) [V		63.5
			Max(Stot)		63.6
			Max( Stot		63.6
			Emax [V/m]		155
			Power Drif	ft [dB]	-0.02



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ANNEX C

TEST RESULTS



# Measurement Report for A3113, BACK, ISM 2.4 GHz Band, IEEE 802.15.1 Bluetooth (GFSK, DH5), Channel 0 (2402.0 MHz)

# **Device Under Test Properties**

Model, Manufacturer	Dimensions [mm]	I	IMEI	DUT Type
A3113,	306.0 x 214.0 x 10.0			Phone

# **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	BACK, 0.00	ISM 2.4 GHz Band	Bluetooth, 10032-CAA	2402.0, 0	7.78	1.83	40.1

#### **Hardware Setup**

Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V8.0 (20deg probe tilt) -	HBBL-600-10000 DAK 3.5 Head 20.18 deg.C 2023-Oct-16 SYS3	EX3DV4 - SN7536, 2023-	DAE4ip Sn1785, 2023-
2102	B3.prn, 2023-Oct-16	06-12	04-03

	Area Scan	Zoom Scan
Grid Extents [mm]	120.0 x 180.0	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
Graded Grid	NS	Yes
Grading Ratio	NS	1.5
MAIA	Y	NS
Surface Detection	VMS + 6p	VMS + 6p
Scan Method	Measured	Measured
Measurement Results		
	Area Sca	n Zoom Scan
Date	2023-10-19, 11:0	2 2023-10-19, 11:14
psSAR1g [W/Kg]	0.21	0 0.223
psSAR10g [W/Kg]	0.09	0 0.089
Power Drift [dB]	-0.0	1 -0.07
Power Scaling	Disable	d Disabled
Scaling Factor [dB]		
TSL Correction	Positive on	y Positive only
M2/M1 [%]		72.7
Dist 3dB Peak [mm]		7.0



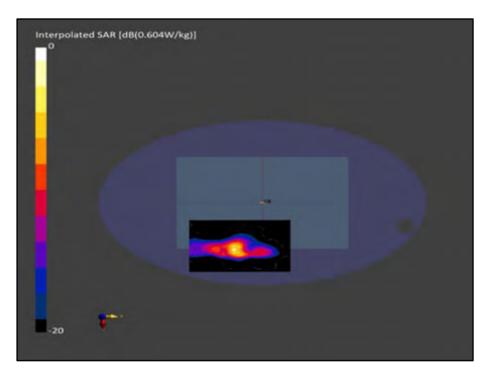


Figure C.1: SAR Testing Results for the A3113 at 2402 MHz Core 0



# Measurement Report for A3113, BACK, ISM 2.4 GHz Band, IEEE 802.15.1 Bluetooth (GFSK, DH5), Channel 78 (2480.0 MHz)

# **Device Under Test Properties**

Model, Manufacturer	Dimensions [mm]	IMEI	DUT Type
A3113,	306.0 x 214.0 x 10.0		Phone

# **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	BACK, 0.00	ISM 2.4 GHz Band	Bluetooth, 10032-CAA	2480.0, 78	7.78	1.89	40.0

#### **Hardware Setup**

Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V8.0 (20deg probe tilt) -	HBBL-600-10000 DAK 3.5 Head 20.18 deg.C 2023-Oct-16 SYS3	EX3DV4 - SN7536, 2023-	DAE4ip Sn1785, 2023-
2102	B3.prn, 2023-Oct-16	06-12	04-03

	Area Scan	Zoom Scan
Grid Extents [mm]	120.0 x 180.0	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
Graded Grid	NS	Yes
Grading Ratio	NS	1.5
MAIA	Y	NS
Surface Detection	VMS + 6p	VMS + 6p
Scan Method	Measured	Measured
Measurement Results	· · ·	
	Area Sca	n Zoom Scan
Date	2023-10-19, 16:20	6 2023-10-19, 16:37
psSAR1g [W/Kg]	0.25	2 0.277
psSAR10g [W/Kg]	0.11	5 0.111
Power Drift [dB]	-0.0	6 0.03
Power Scaling	Disable	d Disabled
Scaling Factor [dB]		
TSL Correction	Positive on	y Positive only
M2/M1 [%]		72.9
Dist 3dB Peak [mm]		7.0



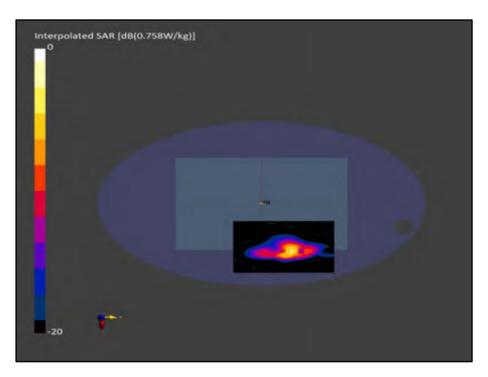


Figure C.2: SAR Testing Results for the A3113 at 2480.0 MHz Core 1



# Measurement Report for A3113, BACK, D5GHz, CW, Channel 15 (5150.0 MHz)

# **Device Under Test Properties**

Model, Manufacturer	Dimensions [mm]	IMEI	DUT Type
A3113,	306.0 x 214.0 x 10.0		Laptop

# Exposure Conditions

Phantom Section,	Position, Test Distance	Band	Group,	Frequency [MHz], Channel	Conversion	TSL Conductivity	TSL
TSL	[mm]		UID	Number	Factor	[S/m]	Permittivity
Flat, HSL	BACK, 0.00	D5GHz	CW, 0	5150.0, 15	5.53	4.52	34.5

# Hardware Setup

Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V8.0 (20deg probe tilt) -	HBBL-600-10000 DAK 3.5 Head 21.83 deg.C 2023-Oct-18 SYS6	EX3DV4 - SN7809, 2023-	DAE4ip Sn1789, 2023-
2203	B6.prn, 2023-Oct-18	05-03	05-02

	Area Scar	Zoom Scan
Grid Extents [mm]	120.0 x 180.0	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
Graded Grid	NS	Yes
Grading Ratio	NS	1.4
MAIA	Y	Y
Surface Detection	VMS + 6p	VMS + 6p
Scan Method	Measured	Measured
Measurement Results	ł	
	Area So	an Zoom Scan
Date	2023-10-19, 10:	52 2023-10-19, 11:01
psSAR1g [W/Kg]	0.1	43 0.157
psSAR10g [W/Kg]	0.0	57 0.058
Power Drift [dB]	0.	15 0.07
Power Scaling	Disabl	ed Disabled
Scaling Factor [dB]		
TSL Correction	Positive of	Positive only
M2/M1 [%]		61.1
Dist 3dB Peak [mm]		10.4



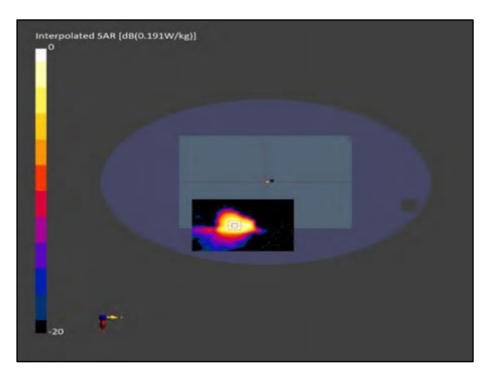


Figure C.3: SAR Testing Results for the A3113 at 5150 MHz Core 0



# Measurement Report for A3113, BACK, Custom Band, CW, Channel 5150000 (5150.0 MHz)

# **Device Under Test Properties**

Model, Manufacturer	Dimensions [mm]	IMEI	DUT Type
A3113,	306.0 x 214.0 x 10.0		Laptop

#### **Exposure Conditions**

Phantom Section,	Position, Test	Band	Group,	Frequency [MHz], Channel	Conversion	TSL Conductivity	TSL
TSL	Distance [mm]		UID	Number	Factor	[S/m]	Permittivity
Flat, HSL	BACK, 0.00	Custom Band	CW, 0	5150.0, 5150000	5.53	4.52	34.5

# Hardware Setup

Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V8.0 (20deg probe tilt) -	HBBL-600-10000 DAK 3.5 Head 21.83 deg.C 2023-Oct-18 SYS6	EX3DV4 - SN7809, 2023-	DAE4ip Sn1789, 2023-
2203	B6.prn, 2023-Oct-18	05-03	05-02

	Area Scan	Zoom Scan
Grid Extents [mm]	120.0 x 180.0	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
Graded Grid	n/a	Yes
Grading Ratio	n/a	1.4
MAIA	Y	Y
Surface Detection	VMS + 6p	VMS + 6p
Scan Method	Measured	Measured
Measurement Results		
	Area Scar	Zoom Scan
Date	2023-10-19, 01:57	2023-10-19, 02:05
psSAR1g [W/Kg]	0.240	0.247
psSAR10g [W/Kg]	0.089	0.090
Power Drift [dB]	-0.03	0.12
Power Scaling	Disablec	Disabled
Scaling Factor [dB]		
TSL Correction	No correction	No correction
M2/M1 [%]		63.8
Dist 3dB Peak [mm]		



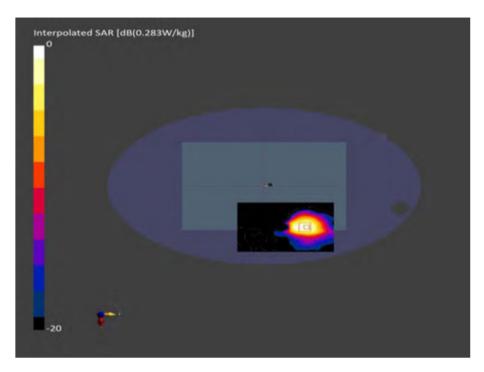


Figure C.4: SAR Testing Results for the A3113 at 5150 MHz Core 1



# Measurement Report for A3113, BACK, D5GHz, CW, Channel 25 (5250.0 MHz)

# **Device Under Test Properties**

Model, Manufacturer	Dimensions [mm]	IMEI	DUT Type
A3113,	306.0 x 214.0 x 10.0		Laptop

#### **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	BACK, 0.00	D5GHz	CW, 0	5250.0, 25	5.53	4.63	34.4

#### **Hardware Setup**

Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V8.0 (20deg probe tilt) -	HBBL-600-10000 DAK 3.5 Head 21.83 deg.C 2023-Oct-18 SYS6	EX3DV4 - SN7809, 2023-	DAE4ip Sn1789, 2023-
2203	B6.prn, 2023-Oct-18	05-03	05-02

	Area Scan	Zoom Scan
Grid Extents [mm]	120.0 x 180.0	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
Graded Grid	n/a	Yes
Grading Ratio	n/a	1.4
MAIA	Y	Y
Surface Detection	VMS + 6p	VMS + 6p
Scan Method	Measured	Measured
Measurement Results		
	Area Scar	Zoom Scan

Alea Scall	20011 Scall
2023-10-19, 12:53	2023-10-19, 13:03
0.109	0.119
0.042	0.041
0.05	-0.19
Disabled	Disabled
Positive only	Positive only
	59.4
	8.0
	2023-10-19, 12:53 0.109 0.042 0.05 Disabled





Figure C.5: SAR Testing Results for the A3113 at 5250 MHz Core 1



# Measurement Report for A3113, BACK, Custom Band, CW, Channel 5850000 (5850.0 MHz)

# **Device Under Test Properties**

Model, Manufacturer	Dimensions [mm]	IMEI	DUT Type
A3113	306.0 x 214.0 x 10.0		Laptop

# Exposure Conditions

	Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity
1	Flat, HSL	BACK, 0.00	Custom Band	CW, 0	5850.0, 5850000	4.83	5.32	33.2

#### Hardware Setup

Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V8.0 (20deg probe tilt) -	HBBL-600-10000 DAK 3.5 Head 21.83 deg.C 2023-Oct-18 SYS6	EX3DV4 - SN7809, 2023-	DAE4ip Sn1789, 2023-
2203	B6.prn, 2023-Oct-18	05-03	05-02

# Scans Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	120.0 x 180.0	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
Graded Grid	NS	Yes
Grading Ratio	NS	1.4
MAIA	Υ	NS
Surface Detection	VMS + 6p	VMS + 6p
Scan Method	Measured	Measured

#### **Measurement Results**

	Area Scan	Zoom Scan
Date	2023-10-19, 03:35	2023-10-19, 03:43
psSAR1g [W/Kg]	0.488 0.555	
psSAR10g [W/Kg]	0.167	0.172
Power Drift [dB]	0.17	0.17
Power Scaling	Disabled	Disabled
Scaling Factor [dB]		
TSL Correction	No correction	No correction
M2/M1 [%]		57.9
Dist 3dB Peak [mm]		7.2



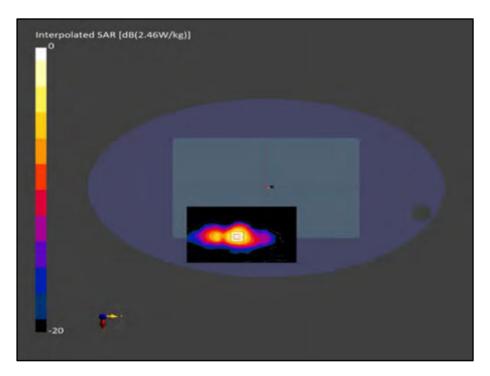


Figure C.6: SAR Testing Results for the A3113 at 5850 MHz Core 0



# Measurement Report for A3113, BACK, Custom Band, CW, Channel 5850000 (5850.0 MHz)

# **Device Under Test Properties**

Model, Manufacturer	Dimensions [mm]	IMEI	DUT Type
A3113,	306.0 x 214.0 x 10.0		Laptop

# Exposure Conditions

Phantom Section,	Position, Test	Band	Group,	Frequency [MHz], Channel	Conversion	TSL Conductivity	TSL
TSL	Distance [mm]		UID	Number	Factor	[S/m]	Permittivity
Flat, HSL	BACK, 0.00	Custom Band	CW, 0	5850.0, 5850000	4.83	5.32	33.2

#### Hardware Setup

Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V8.0 (20deg probe tilt) -	HBBL-600-10000 DAK 3.5 Head 21.83 deg.C 2023-Oct-18 SYS6	EX3DV4 - SN7809, 2023-	DAE4ip Sn1789, 2023-
2203	B6.prn, 2023-Oct-18	05-03	05-02

	Area Scan	Zoom Scan
Grid Extents [mm]	120.0 x 180.0	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
Graded Grid	NS	Yes
Grading Ratio	NS	1.4
MAIA	Y	NS
Surface Detection	VMS + 6p	VMS + 6p
Scan Method	Measured	Measured
Measurement Results		
	Area Sca	n Zoom Scan
Date	2023-10-19, 05:1	0 2023-10-19, 05:19
psSAR1g [W/Kg]	0.38	5 0.425
psSAR10g [W/Kg]	0.13	0.138
Power Drift [dB]	0.1	0.06
Power Scaling	Disable	Disabled
Scaling Factor [dB]		
TSL Correction	Positive onl	y Positive only
M2/M1 [%]		57.8
Dist 3dB Peak [mm]		7.2



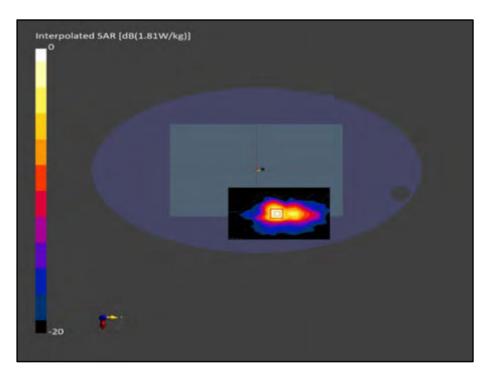


Figure C.7: SAR Testing Results for the A3113 at 5850 MHz Core 1



# Measurement Report for A3113, BACK, Custom Band, CW, Channel 5850000 (5850.0 MHz)

# **Device Under Test Properties**

Model, Manufacturer	Dimensions [mm]	IMEI	DUT Type
A3113,	306.0 x 214.0 x 10.0		Laptop

# Exposure Conditions

Phantom Section,	Position, Test	Band	Group,	Frequency [MHz], Channel	Conversion	TSL Conductivity	TSL
TSL	Distance [mm]		UID	Number	Factor	[S/m]	Permittivity
Flat, HSL	BACK, 0.00	Custom Band	CW, 0	5850.0, 5850000	4.83	5.32	33.2

#### Hardware Setup

Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V8.0 (20deg probe tilt) -	HBBL-600-10000 DAK 3.5 Head 21.83 deg.C 2023-Oct-18 SYS6	EX3DV4 - SN7809, 2023-	DAE4ip Sn1789, 2023-
2203	B6.prn, 2023-Oct-18	05-03	05-02

		Area Scan	Zoom Scan
Grid Extents [mm]		120.0 x 180.0	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
Graded Grid		NS	Yes
Grading Ratio		NS	1.4
MAIA		Y	Y
Surface Detection		VMS + 6p	VMS + 6p
Scan Method		Measured	Measured
Measurement Results			
		Area Scan	Zoom Scan
Date	2023-10-19, 18:32		2 2023-10-19, 18:40
psSAR1g [W/Kg]		0.282	2 0.320
psSAR10g [W/Kg]		0.093	0.10
Power Drift [dB]	-0.0		-0.08
Power Scaling	Disabled		Disabled
Scaling Factor [dB]			
TSL Correction	Positive only		Positive only
M2/M1 [%]			57.3
Dist 3dB Peak [mm]			7.2



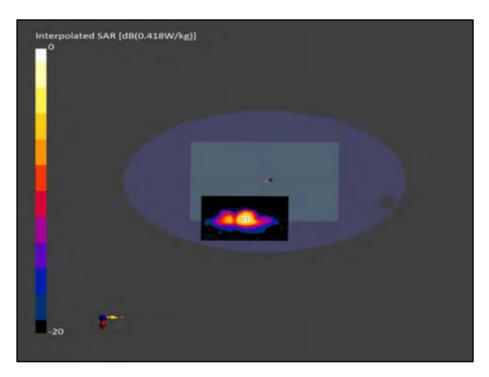


Figure C.8: SAR Testing Results for the A3113 at 5850 MHz Core 0



# Measurement Report for A3113, BACK, Custom Band, CW, Channel 5850000 (5850.0 MHz)

### **Device Under Test Properties**

Model, Manufacturer	Dimensions [mm]	IMEI	DUT Type
A3113,	306.0 x 214.0 x 10.0		Laptop

## Exposure Conditions

Phantom Section,	Position, Test	Band	Group,	Frequency [MHz], Channel	Conversion	TSL Conductivity	TSL
TSL	Distance [mm]		UID	Number	Factor	[S/m]	Permittivity
Flat, HSL	BACK, 0.00	Custom Band	CW, 0	5850.0, 5850000	4.83	5.32	33.2

#### Hardware Setup

Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V8.0 (20deg probe tilt) -	HBBL-600-10000 DAK 3.5 Head 21.83 deg.C 2023-Oct-18 SYS6	EX3DV4 - SN7809, 2023-	DAE4ip Sn1789, 2023-
2203	B6.prn, 2023-Oct-18	05-03	05-02

	Area Scan	Zoom Scan
Grid Extents [mm]	120.0 x 180.0	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
Graded Grid	NS	Yes
Grading Ratio	NS	1.4
MAIA	Y	Y
Surface Detection	VMS + 6p	VMS + 6p
Scan Method	Measured	Measured
Measurement Results		
	Area Sca	n Zoom Scan
Date	2023-10-19, 19:3	6 2023-10-19, 19:45
psSAR1g [W/Kg]	0.20	1 0.218
psSAR10g [W/Kg]	0.06	8 0.069
Power Drift [dB]	-0.2	9 0.05
Power Scaling	Disable	d Disabled
Scaling Factor [dB]		
TSL Correction	Positive on	y Positive only
M2/M1 [%]		56.0
Dist 3dB Peak [mm]		8.0



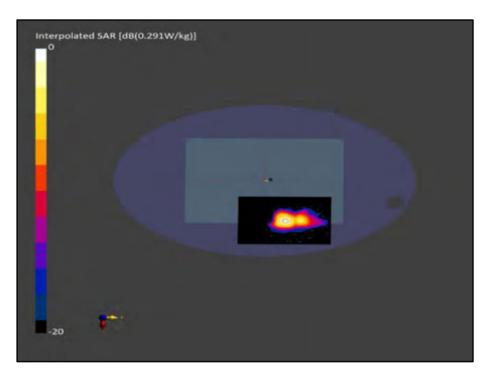


Figure C.9: SAR Testing Results for the A3113 at 5850 MHz Core 1



# Measurement Report for A3113, BACK, Custom Band, CW, Channel 2480000 (2480.0 MHz)

### **Device Under Test Properties**

Model, Manufacturer	Dimensions [mm]	IMEI	DUT Type
A3113,	306.0 x 214.0 x 10.0		Laptop

### Exposure Conditions

Phantom Section,	Position, Test	Band	Group,	Frequency [MHz], Channel	Conversion	TSL Conductivity	TSL
TSL	Distance [mm]		UID	Number	Factor	[S/m]	Permittivity
Flat, HSL	BACK, 0.00	Custom Band	CW, 0	2480.0, 2480000	7.78	1.89	40.0

#### Hardware Setup

Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V8.0 (20deg probe tilt) -	HBBL-600-10000 DAK 3.5 Head 20.18 deg.C 2023-Oct-16 SYS3	EX3DV4 - SN7536, 2023-	DAE4ip Sn1785, 2023-
2102	B3.prn, 2023-Oct-16	06-12	04-03

	Area So	an Zoom Scan
Grid Extents [mm]	120.0 x 18	0.0 30.0 x 30.0 x 30.0
Grid Steps [mm]	10.0 x 1	0.0 5.0 x 5.0 x 1.5
Sensor Surface [mm]		3.0 1.4
Graded Grid		VS Yes
Grading Ratio		NS 1.5
MAIA		NS NS
Surface Detection	VMS +	6p VMS + 6p
Scan Method	Measu	ed Measured
Measurement Results	÷	
	Area	Scan Zoom Scan
Date	2023-10-19,	7:38 2023-10-19, 17:50
psSAR1g [W/Kg]	(	0.484 0.509
psSAR10g [W/Kg]		0.213 0.208
Power Drift [dB]		0.04 0.04
Power Scaling	Dis	bled Disabled
Scaling Factor [dB]		
TSL Correction	Positive	only Positive only
M2/M1 [%]		73.1
Dist 3dB Peak [mm]		7.1



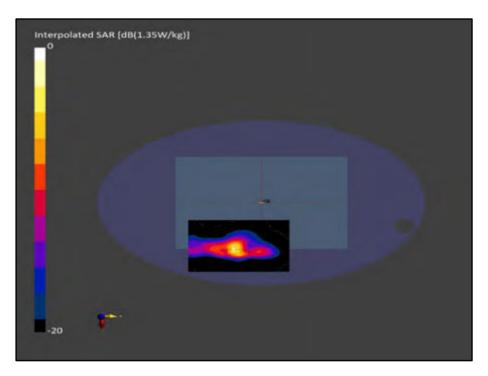


Figure C.10: SAR Testing Results for the A3113 at 2480 MHz Core 0



# Measurement Report for A3113, BACK, Custom Band, CW, Channel 2480000 (2480.0 MHz)

### **Device Under Test Properties**

Model, Manufacturer	Dimensions [mm]	IMEI	DUT Type
A3113,	306.0 x 214.0 x 10.0		Laptop

### Exposure Conditions

Phantom Section,	Position, Test	Band	Group,	Frequency [MHz], Channel	Conversion	TSL Conductivity	TSL
TSL	Distance [mm]		UID	Number	Factor	[S/m]	Permittivity
Flat, HSL	BACK, 0.00	Custom Band	CW, 0	2480.0, 2480000	7.78	1.89	40.0

#### Hardware Setup

Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V8.0 (20deg probe tilt) -	HBBL-600-10000 DAK 3.5 Head 20.18 deg.C 2023-Oct-16 SYS3	EX3DV4 - SN7536, 2023-	DAE4ip Sn1785, 2023-
2102	B3.prn, 2023-Oct-16	06-12	04-03

Area Scan	Zoom Scan
120.0 x 180.0	30.0 x 30.0 x 30.0
10.0 x 10.0	5.0 x 5.0 x 1.5
3.0	1.4
NS	Yes
NS	1.5
NS	NS
VMS + 6p	VMS + 6p
Measured	Measured
Area Scar	Zoom Scan
2023-10-19, 20:17	2023-10-19, 20:29
0.652	0.708
0.293	0.286
0.03	0.17
Disabled	Disabled
Positive only	Positive only
	72.5
	3.0 NS NS NS VMS + 6p Measured Area Scar 2023-10-19, 20:17 0.652 0.293 0.03 Disabled



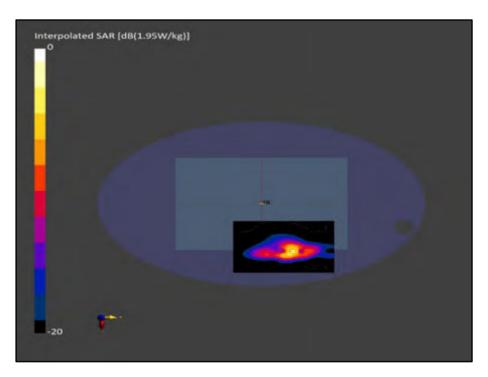


Figure C.11: SAR Testing Results for the A3113 at 2480 MHz Core 1



# Measurement Report for A3113, BACK, Custom Band, CW, Channel 2405000 (2405.0 MHz)

### **Device Under Test Properties**

Model, Manufacturer	Dimensions [mm]	IMEI	DUT Type
A3113,	306.0 x 214.0 x 10.0		Phone

### Exposure Conditions

Phantom Section,	Position, Test	Band	Group,	Frequency [MHz], Channel	Conversion	TSL Conductivity	TSL
TSL	Distance [mm]		UID	Number	Factor	[S/m]	Permittivity
Flat, HSL	BACK, 0.00	Custom Band	CW, 0	2405.0, 2405000	7.78	1.83	40.1

#### Hardware Setup

Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V8.0 (20deg probe tilt) -	HBBL-600-10000 DAK 3.5 Head 20.85 deg.C 2023-Oct-18 SYS3	EX3DV4 - SN7536, 2023-	DAE4ip Sn1785, 2023-
2102	B3.prn, 2023-Oct-20	06-12	04-03

	Area Sca	zoom Scan
Grid Extents [mm]	120.0 x 180.	30.0 x 30.0 x 30.0
Grid Steps [mm]	10.0 x 10.	5.0 x 5.0 x 1.5
Sensor Surface [mm]	3.	0 1.4
Graded Grid	N	S Yes
Grading Ratio	N	3 1.5
MAIA	N	S NS
Surface Detection	VMS + 6	VMS + 6p
Scan Method	Measure	Measured
Measurement Results		
	Area S	zan Zoom Scan
Date	2023-10-20, 08	:16 2023-10-20, 08:28
psSAR1g [W/Kg]	0.1	0.242
psSAR10g [W/Kg]	0.1	01 0.10
Power Drift [dB]	C	.02 0.02
Power Scaling	Disab	led Disabled
Scaling Factor [dB]		
TSL Correction	Positive	nly Positive only
M2/M1 [%]		73.5
Dist 3dB Peak [mm]		7.0



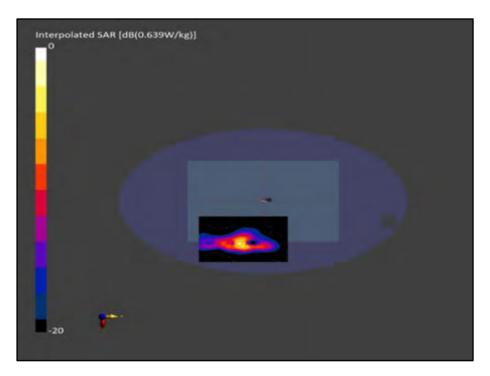


Figure C.12: SAR Testing Results for the A3113 at 2405 MHz Core 0



# Measurement Report for A3113, BACK, Custom Band, CW, Channel 2480000 (2480.0 MHz)

### **Device Under Test Properties**

Model, Manufacturer	Dimensions [mm]	IMEI	DUT Type
A3113,	306.0 x 214.0 x 10.0		Phone

### Exposure Conditions

Phantom Section,	Position, Test	Band	Group,	Frequency [MHz], Channel	Conversion	TSL Conductivity	TSL
TSL	Distance [mm]		UID	Number	Factor	[S/m]	Permittivity
Flat, HSL	BACK, 0.00	Custom Band	CW, 0	2480.0, 2480000	7.78	1.89	40.0

#### Hardware Setup

Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V8.0 (20deg probe tilt) -	HBBL-600-10000 DAK 3.5 Head 20.85 deg.C 2023-Oct-18 SYS3	EX3DV4 - SN7536, 2023-	DAE4ip Sn1785, 2023-
2102	B3.prn, 2023-Oct-20	06-12	04-03

	Area Scan	Zoom Scan
Grid Extents [mm]	120.0 x 180.0	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
Graded Grid	NS	Yes
Grading Ratio	NS	1.5
MAIA	NS	NS
Surface Detection	VMS + 6p	VMS + 6p
Scan Method	Measured	Measured
Measurement Results		
	Area Sca	n Zoom Scan
Date	2023-10-20, 06:0	9 2023-10-20, 06:20
psSAR1g [W/Kg]	0.23	3 0.253
psSAR10g [W/Kg]	0.10	9 0.102
Power Drift [dB]	0.0	7 0.07
Power Scaling	Disable	d Disabled
Scaling Factor [dB]		
TSL Correction	Positive on	y Positive only
M2/M1 [%]		72.3
Dist 3dB Peak [mm]		6.8



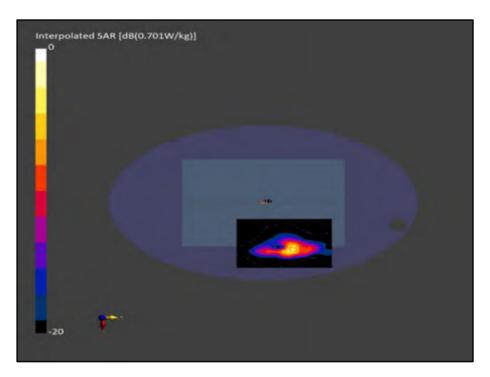


Figure C.13: SAR Testing Results for the A3113 at 2480 MHz Core 1



#### Measurement Report for A3113, BACK, WLAN 2.4GHz, IEEE 802.11n (HT Mixed, 6.5 Mbps, BPSK), Channel 2 (2417.000 MHz)

# **Device Under Test Properties**

Model, Manufacturer	Dimensions [mm]	IMEI	DUT Type
A3113,	306.0 x 214.0 x 10.0		Laptop

## **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	BACK, 0.00	WLAN 2.4GHz	WLAN, 10196-CAD	2417.000, 2	7.78	1.82	39.7

#### **Hardware Setup**

Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V8.0 (20deg probe tilt) -	HBBL-600-10000 DAK 3.5 Head 21.65 deg.C 2023-Oct-20 SYS3	EX3DV4 - SN7536, 2023-	DAE4ip Sn1785, 2023-
2102	B3.prn, 2023-Oct-25	06-12	04-03

	Area Scan	Zoom Scan
Grid Extents [mm]	120.0 x 180.0	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
Graded Grid	NS	Yes
Grading Ratio	NS	1.5
MAIA	NS	NS
Surface Detection	VMS + 6p	VMS + 6p
Scan Method	Measured	Measured
Measurement Results		
	Area Sca	in Zoom Scan
Date	2023-10-20, 20:0	7 2023-10-20, 20:18
psSAR1g [W/Kg]	0.64	4 0.690
psSAR10g [W/Kg]	0.28	0.280
Power Drift [dB]	0.0	0.03
Power Scaling	Disable	d Disabled
Scaling Factor [dB]		
TSL Correction	No correction	No correction
M2/M1 [%]		72.5
Dist 3dB Peak [mm]		6.5



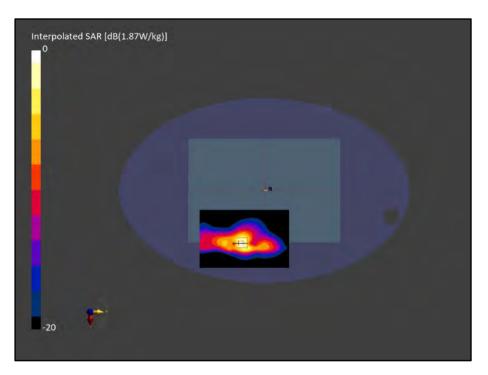


Figure C.14: SAR Testing Results for the A3113 at 2417 MHz Core 0



#### Measurement Report for A3113, BACK, WLAN 2.4GHz, IEEE 802.11n (HT Mixed, 6.5 Mbps, BPSK), Channel 10 (2457.000 MHz)

# **Device Under Test Properties**

Model, Manufacturer	Dimensions [mm]	IMEI	DUT Type
A3113,	306.0 x 214.0 x 10.0		Phone

## **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	BACK, 0.00	WLAN 2.4GHz	WLAN, 10196-CAD	2457.000, 10	7.78	1.85	39.6

#### **Hardware Setup**

Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V8.0 (20deg probe tilt) -	HBBL-600-10000 DAK 3.5 Head 21.65 deg.C 2023-Oct-20 SYS3	EX3DV4 - SN7536, 2023-	DAE4ip Sn1785, 2023-
2102	B3.prn, 2023-Oct-25	06-12	04-03

	Area Sca	Zoom Scan
Grid Extents [mm]	120.0 x 180.0	30.0 x 30.0 x 30.0
Grid Steps [mm]	10.0 x 10.	4.9 x 4.9 x 1.5
Sensor Surface [mm]	3.	1.4
Graded Grid	N	Yes
Grading Ratio	N	5 1.5
MAIA	N	S NS
Surface Detection	VMS + 6	VMS + 6p
Scan Method	Measure	Measured
Measurement Results		
	Area So	an Zoom Scan
Date	2023-10-20, 22	37 2023-10-20, 22:51
psSAR1g [W/Kg]	0.6	84 0.744
psSAR10g [W/Kg]	0.3	07 0.299
Power Drift [dB]	0	05 0.07
Power Scaling	Disab	ed Disabled
Scaling Factor [dB]		
TSL Correction	No correct	on No correction
M2/M1 [%]		72.2
Dist 3dB Peak [mm]		6.2



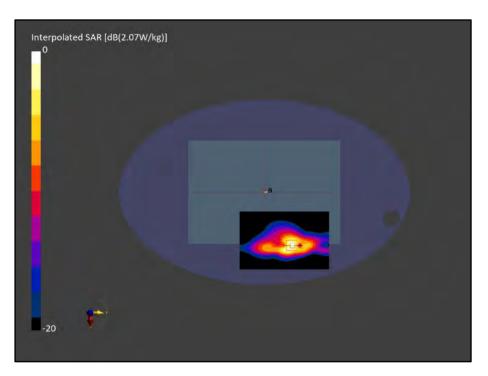


Figure C.15: SAR Testing Results for the A3113 at 2457 MHz Core 1



# Measurement Report for A3113, BACK, WLAN 2.4 GHz, IEEE 802.11n (HT Mixed, 6.5 Mbps, BPSK), Channel 10 (2457.0 MHz)

### **Device Under Test Properties**

Model, Manufacturer	Dimensions [mm]	IMEI	DUT Type
A3113,	306.0 x 214.0 x 10.0		Laptop

# **Exposure Conditions**

	Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity
F	Flat, HSL	BACK, 0.00	WLAN 2.4GHz	WLAN, 10196-CAD	, 10	7.22	1.85	39.6

# **Hardware Setup**

Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V8.0 (20deg probe tilt) -	HBBL-600-10000 DAK 3.5 Head 21.65 deg.C 2023-Oct-20 SYS3	EX3DV4 - SN7809, 2023-	DAE4ip Sn1785, 2023-
2102	B3.prn, 2023-Oct-21	05-03	04-03

### Scans Setup

	Area Scan	Zoom Scan	Zoom Scan
Grid Extents [mm]	x 240.0	30.0 x 30.0 x 30.0	30.0 x 30.0 x 30.0
Grid Steps [mm]	10.0 x 10.0	5.0 x 5.0 x 1.5	5.0 x 5.0 x 1.5
Sensor Surface [mm]	3.0	1.4	1.4
Graded Grid	n/a	Yes	Yes
Grading Ratio	n/a	1.5	1.5
MAIA	N/A	N/A	N/A
Surface Detection	VMS + 6p	VMS + 6p	VMS + 6p
Scan Method	Measured	Measured	Measured

#### **Measurement Results**

	Area Scan	Zoom Scan	Zoom Scan
Date	2023-10-21, 05:23	2023-10-21, 05:34	2023-10-21, 05:45
psSAR1g [W/Kg]	0.676	0.746	0.573
psSAR10g [W/Kg]	0.309	0.298	0.239
Power Drift [dB]	-0.00	0.01	0.00
Power Scaling	Disabled	Disabled	Disabled
Scaling Factor [dB]			
TSL Correction	Positive only	Positive only	Positive only
M2/M1 [%]		73.7	73.2
Dist 3dB Peak [mm]		6.4	7.0



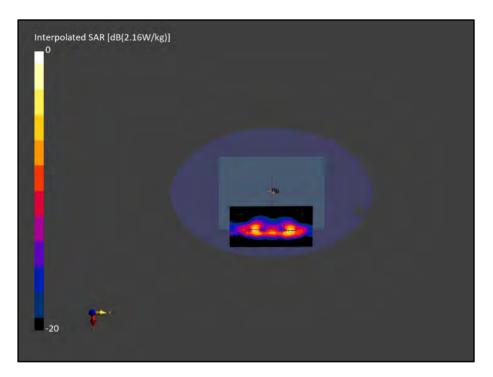


Figure C.16: SAR Testing Results for the A3113 at 2457 MHz Core 0 & Core 1



# Measurement Report for A3113, BACK, WLAN 5 GHz, IEEE 802.11a/h WiFi 5 GHz (OFDM, 6 Mbps, 99pc duty cycle), Channel 40 (5200.0 MHz)

# **Device Under Test Properties**

Model, Manufacturer	Dimensions [mm]	IMEI	DUT Type
A3113,	306.0 x 214.0 x 10.0		Laptop

## **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	BACK, 0.00	WLAN 5 GHz	WLAN, 10417- AAC	5200.0, 40	5.53	4.39	33.9

#### **Hardware Setup**

Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V8.0 (20deg probe tilt) -	HBBL-600-10000 DAK 3.5 Head 20.15 deg.C 2023-Oct-23 SYS6	EX3DV4 - SN7809, 2023-	DAE4ip Sn1789, 2023-
2203	B6.prn, 2023-Oct-23	05-03	05-02

		Area Scan	Zoom Scan
Grid Extents [mm]		120.0 x 180.0	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
Graded Grid		NS	Yes
Grading Ratio		NS	1.4
MAIA		Y	NS
Surface Detection		VMS + 6p	VMS + 6p
Scan Method		Measured	Measured
Measurement Results			
		Area Scar	n Zoom Scan
Date		2023-10-24, 15:33	3 2023-10-24, 15:44
psSAR1g [W/Kg]		0.571	0.634
psSAR10g [W/Kg]		0.230	0.242
Power Drift [dB]		0.04	4 0.09
Power Scaling		Disablec	d Disabled
Scaling Factor [dB]			
TSL Correction		No correction	No correction
M2/M1 [%]			62.4
Dist 3dB Peak [mm]			10.7



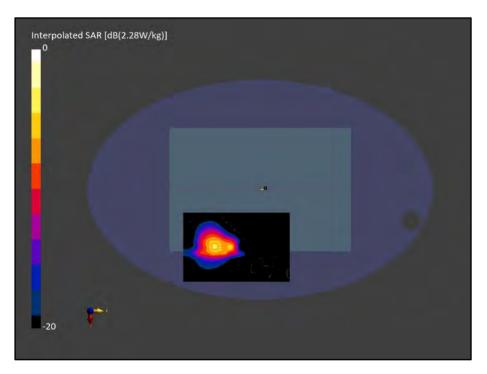


Figure C.17: SAR Testing Results for the A3113 at 5200 MHz Core 0



# Measurement Report for A3113, BACK, WLAN 5 GHz, IEEE 802.11a/h WiFi 5 GHz (OFDM, 6 Mbps, 99pc duty cycle), Channel 36 (5180.000 MHz)

# **Device Under Test Properties**

Model, Manufacturer	Dimensions [mm]	IMEI	DUT Type
A3113,	306.0 x 214.0 x 10.0		Laptop

#### **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	BACK, 0.00	WLAN 5 GHz	WLAN, 10417- AAC	5180.000, 36	5.53	4.53	34.5

#### **Hardware Setup**

Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V8.0 (20deg probe tilt) -	HBBL-600-10000 DAK 3.5 Head 20.9 deg.C 2023-Oct-25 SYS6	EX3DV4 - SN7809, 2023-	DAE4ip Sn1789, 2023-
2203	B6.prn, 2023-Oct-25	05-03	05-02

	Area Scan	Zoom Scan
Grid Extents [mm]	120.0 x 180.0	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
Graded Grid	NS	Yes
Grading Ratio	NS	1.4
MAIA	Y	NS
Surface Detection	VMS + 6p	VMS + 6p
Scan Method	Measured	Measured
Measurement Results		
	Area Sca	n Zoom Scan
Date	2023-10-25, 12:1	4 2023-10-25, 12:24
psSAR1g [W/Kg]	0.47	4 0.518
psSAR10g [W/Kg]	0.18	4 0.188
Power Drift [dB]	-0.0	6 0.00
Power Scaling	Disable	d Disabled
Scaling Factor [dB]		
TSL Correction	Positive on	y Positive only
M2/M1 [%]		63.2
Dist 3dB Peak [mm]		8.0



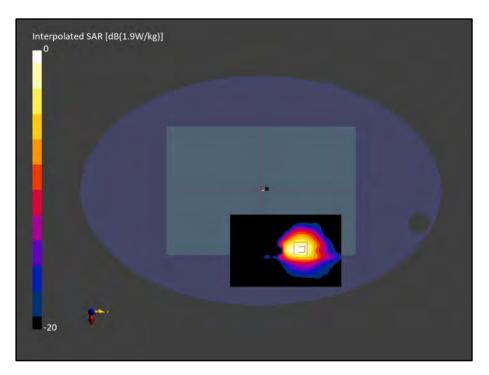


Figure C.18: SAR Testing Results for the A3113 at 5180 MHz Core 1



### Measurement Report for A3113, BACK, U-NII-1, U-NII-2A, IEEE 802.11n (HT Mixed, 13.5 Mbps, BPSK), Channel 46 (5230.0 MHz)

# **Device Under Test Properties**

Model, Manufacturer	Dimensions [mm]	IMEI	DUT Type
A3113,	306.0 x 214.0 x 10.0		Laptop

## **Exposure Conditions**

Phantom Section, T	SL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity
Flat, HSL		BACK, 0.00	U-NII-1, U- NII-2A	WLAN, 10117-CAD	, 46	5.53	4.42	33.9

#### **Hardware Setup**

Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V8.0 (20deg probe tilt) -	HBBL-600-10000 DAK 3.5 Head 20.15 deg.C 2023-Oct-23 SYS6	EX3DV4 - SN7809, 2023-	DAE4ip Sn1789, 2023-
2203	B6.prn, 2023-Oct-23	05-03	05-02

	Area Scan	Zoom Scan	Zoom Scan
Grid Extents [mm]	x 240.0	22.0 x 22.0 x 22.0	22.0 x 22.0 x 22.0
Grid Steps [mm]	10.0 x 10.0	4.0 x 4.0 x 1.4	4.0 x 4.0 x 1.4
Sensor Surface [mm]	3.0	1.4	1.4
Graded Grid	NS	Yes	Yes
Grading Ratio	NS	1.4	1.4
MAIA	Y	NS	NS
Surface Detection	All points	VMS + 6p	VMS + 6p
Scan Method	Measured	Measured	Measured
Measurement Results			
	Area	Scan Zoom Sca	an Zoom Scan
Date	2023-10-24, 1	9:51 2023-10-24, 20:0	2023-10-24, 20:11
psSAR1g [W/Kg]	0	.531 0.55	0.485
psSAR10g [W/Kg]	0	.213 0.18	0.219
Power Drift [dB]		0.05 0.0	0.04
Power Scaling	Disa	bled Disable	Disabled
Scaling Factor [dB]			
TSL Correction	Positive	only Positive or	ly Positive only
M2/M1 [%]		63	.6 61.3
Dist 3dB Peak [mm]		8	.0 10.7



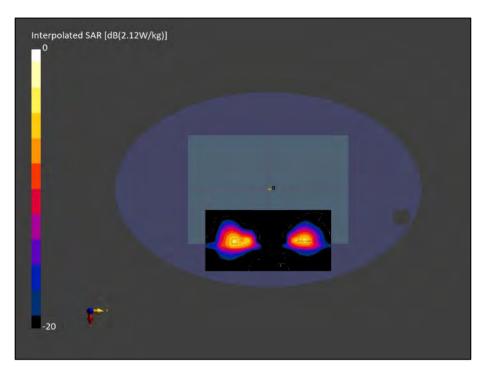


Figure C.19: SAR Testing Results for the A3113 at 5230 MHz Core 0 & Core 1



# Measurement Report for A3113, FRONT, WLAN 5 GHz, IEEE 802.11ac WiFi (40 MHz, MCS0, 99pc duty cycle), Channel 54 (5270.0 MHz)

## **Device Under Test Properties**

Model, Manufacturer	Dimensions [mm]	IMEI	DUT Type
A3113,	306.0 x 214.0 x 10.0		Laptop

## **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	FRONT, 0.00	WLAN 5 GHz	WLAN, 10534- AAC	5270.0, 54	5.27	4.61	33.9

#### **Hardware Setup**

Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V8.0 (20deg probe tilt) -	HBBL-600-10000 DAK 3.5 Head 20.7 deg.C 2023-Oct-20 SYS6	EX3DV4 - SN7809, 2023-	DAE4ip Sn1789, 2023-
2203	B6.prn, 2023-Oct-20	05-03	05-02

	Area Scan	Zoom Scan
Grid Extents [mm]	120.0 x 180.0	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
Graded Grid	NS	Yes
Grading Ratio	NS	1.4
MAIA	Y	Y
Surface Detection	VMS + 6p	VMS + 6p
Scan Method	Measured	Measured
Measurement Results		
	Area Sca	n Zoom Scan
Date	2023-10-20, 22:4	3 2023-10-20, 22:55
psSAR1g [W/Kg]	0.62	2 0.634
psSAR10g [W/Kg]	0.07	5 0.073
Power Drift [dB]	0.14	4 0.09
Power Scaling	Disable	Disabled
Scaling Factor [dB]		
TSL Correction	Positive on	y Positive only
M2/M1 [%]		58.8
Dist 3dB Peak [mm]		9.7



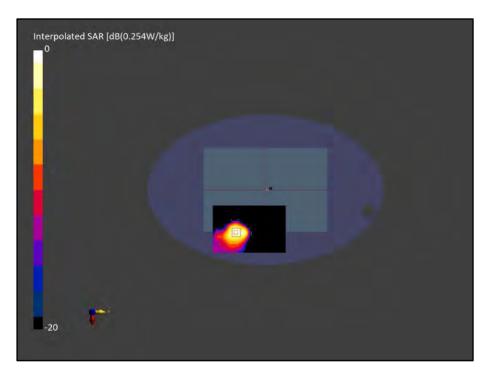


Figure C.20: SAR Testing Results for the A3113 at 5270 MHz Core 0



# Measurement Report for A3113, BACK, WLAN 5 GHz, IEEE 802.11ac WiFi (40 MHz, MCS0, 99pc duty cycle), Channel 54 (5270.0 MHz)

# **Device Under Test Properties**

Model, Manufacturer	Dimensions [mm]	IMEI	DUT Type
A3113,	306.0 x 214.0 x 10.0		Laptop

#### **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	BACK, 0.00	WLAN 5 GHz	WLAN, 10534- AAC	5270.0, 54	5.27	4.61	33.9

#### **Hardware Setup**

Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V8.0 (20deg probe tilt) -	HBBL-600-10000 DAK 3.5 Head 20.7 deg.C 2023-Oct-20 SYS6	EX3DV4 - SN7809, 2023-	DAE4ip Sn1789, 2023-
2203	B6.prn, 2023-Oct-20	05-03	05-02

	Area Sca	n Zoom Scan
Grid Extents [mm]	120.0 x 180.	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
Graded Grid	N	S Yes
Grading Ratio	N	3 1.4
MAIA		Y NS
Surface Detection	VMS + 6	р VMS + 6р
Scan Method	Measure	d Measured
Measurement Results	÷	
	Area S	can Zoom Scan
Date	2023-10-20, 23	:47 2023-10-20, 23:57
psSAR1g [W/Kg]	0.4	0.634
psSAR10g [W/Kg]	0.1	0.221
Power Drift [dB]	-C	-0.01
Power Scaling	Disab	led Disabled
Scaling Factor [dB]		
TSL Correction	Positive	Positive only
M2/M1 [%]		62.8
Dist 3dB Peak [mm]		7.9



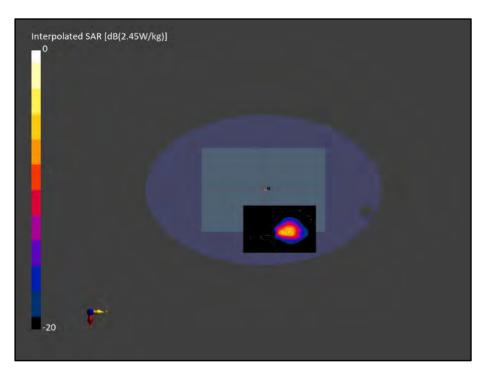


Figure C.21: SAR Testing Results for the A3113 at 5270 MHz Core 1



# Measurement Report for A3113, BACK, U-NII-1, U-NII-2A, IEEE 802.11ac WiFi (20 MHz, MCS0, 99pc duty cycle), Channel 64 (5320.0 MHz)

# **Device Under Test Properties**

Model, Manufacturer	Dimensions [mm]	IMEI	DUT Type
A3113,	306.0 x 214.0 x 10.0		Laptop

## **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	BACK, 0.00	U-NII-1, U- NII-2A	WLAN, 10525-AAC	, 64	5.27	4.52	33.7

#### **Hardware Setup**

Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V8.0 (20deg probe tilt) -	HBBL-600-10000 DAK 3.5 Head 20.15 deg.C 2023-Oct-23 SYS6	EX3DV4 - SN7809, 2023-	DAE4ip Sn1789, 2023-
2203	B6.prn, 2023-Oct-23	05-03	05-02

•			7 .	
	Area Scar		Zoom Scan	Zoom Scan
Grid Extents [mm]	x 260.0	x 260.0 22.0 x 22.0 x 22.0		22.0 x 22.0 x 22.0
Grid Steps [mm]	10.0 x 10.0		4.0 x 4.0 x 1.4	4.0 x 4.0 x 1.4
Sensor Surface [mm]	3.0		1.4	1.4
Graded Grid	NS		Yes	Yes
Grading Ratio	NS		1.4	1.4
MAIA	١		NS	NS
Surface Detection	VMS + 6p		VMS + 6p	VMS + 6p
Scan Method	Measured		Measured	Measured
Measurement Results				
	Area	Scan	Zoom Scan	Zoom Scan
Date	2023-10-23,	20:20	2023-10-23, 20:31	2023-10-23, 20:40
psSAR1g [W/Kg]		0.539	0.544	0.578
psSAR10g [W/Kg]		0.203	0.202	0.203
Power Drift [dB]		0.00	-0.03	-0.02
Power Scaling	Dis	abled	Disabled	Disabled
Scaling Factor [dB]				
TSL Correction	Positiv	e only	Positive only	Positive only
M2/M1 [%]			60.7	62.4
Dist 3dB Peak [mm]			9.9	7.6



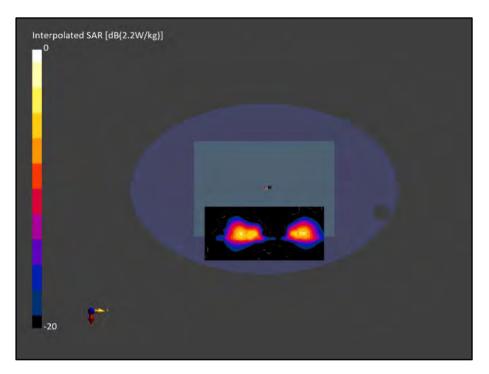


Figure C.22: SAR Testing Results for the A3113 at 5270 MHz Core 0 & Core 1



# Measurement Report for A3113, BACK, U-NII-2C, U-NII-3, IEEE 802.11ac WiFi (80 MHz, MCS0, 99pc duty cycle), Channel 138 (5690.0 MHz)

# **Device Under Test Properties**

Model, Manufacturer	Dimensions [mm]	IMEI	DUT Type
A3113,	306.0 x 214.0 x 10.0		Laptop

## **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	BACK, 0.00	U-NII-2C, U- NII-3	WLAN, 10544-AAC	5690.0, 138	4.75	5.11	33.5

#### **Hardware Setup**

Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V8.0 (20deg probe tilt) -	HBBL-600-10000 DAK 3.5 Head 20.9 deg.C 2023-Oct-25 SYS6	EX3DV4 - SN7809, 2023-	DAE4ip Sn1789, 2023-
2203	B6.prn, 2023-Oct-25	05-03	05-02

	Area Scar	Zoom Scan
Grid Extents [mm]	120.0 x 180.0	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
Graded Grid	NS	Yes
Grading Ratio	NS	1.4
MAIA	٢	NS
Surface Detection	VMS + 6p	VMS + 6p
Scan Method	Measured	Measured
Measurement Results		
	Area So	an Zoom Scan
Date	2023-10-26, 18:	53 2023-10-26, 19:00
psSAR1g [W/Kg]	0.5	76 0.653
psSAR10g [W/Kg]	0.1	93 0.207
Power Drift [dB]	0.	15 0.06
Power Scaling	Disabl	ed Disabled
Scaling Factor [dB]		
TSL Correction	Positive o	nly Positive only
M2/M1 [%]		58.7
Dist 3dB Peak [mm]		7.2



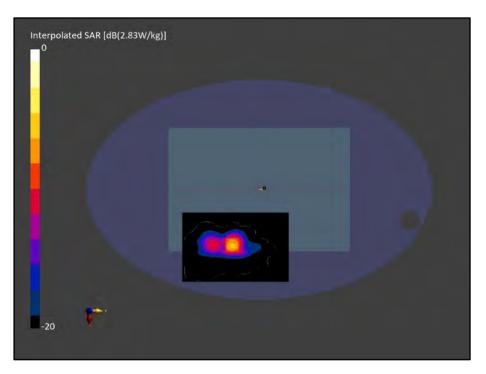


Figure C.23: SAR Testing Results for the A3113 at 5690 MHz Core 0



# Measurement Report for A3113, BACK, U-NII-2C < 5.65 GHz, IEEE 802.11ac WiFi (80 MHz, MCS0, 99pc duty cycle), Channel 106 (5530.0 MHz)

# **Device Under Test Properties**

Model, Manufacturer	Dimensions [mm]	IMEI	DUT Type
A3113,	306.0 x 214.0 x 10.0		Laptop

## **Exposure Conditions**

	antom ction, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity
Fla	it, HSL	BACK, 0.00	U-NII-2C < 5.65 GHz	WLAN, 10544-AAC	5530.0, 106	4.84	4.93	33.8

#### **Hardware Setup**

Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V8.0 (20deg probe tilt) -	HBBL-600-10000 DAK 3.5 Head 20.9 deg.C 2023-Oct-25 SYS6	EX3DV4 - SN7809, 2023-	DAE4ip Sn1789, 2023-
2203	B6.prn, 2023-Oct-25	05-03	05-02

	Area Sca	n Zoom Scan
Grid Extents [mm]	120.0 x 180	0 22.0 × 22.0 × 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
Graded Grid	Ν	S Yes
Grading Ratio	Ν	S 1.4
MAIA		Y NS
Surface Detection	VMS + 6	p VMS + 6p
Scan Method	Measure	d Measured
Measurement Results	÷	
	Area S	can Zoom Scan
Date	2023-10-26, 1	2023-10-26, 19:26
psSAR1g [W/Kg]	0.	431 0.473
psSAR10g [W/Kg]	0.	150 0.156
Power Drift [dB]		-0.04
Power Scaling	Disa	Disabled
Scaling Factor [dB]		
TSL Correction	Positive	Positive only
M2/M1 [%]		58.7
Dist 3dB Peak [mm]		7.3



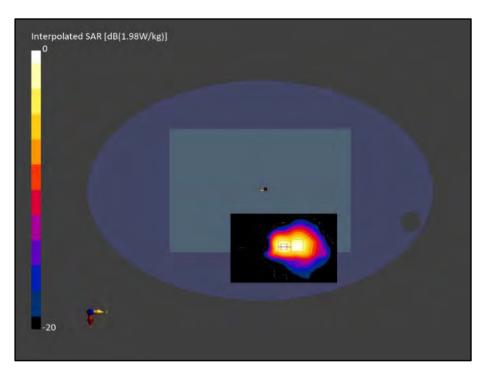


Figure C.24: SAR Testing Results for the A3113 at 5530 MHz Core 1



### Measurement Report for A3113, BACK, U-NII-2C, U-NII-3, IEEE 802.11n (HT Mixed, 6.5 Mbps, BPSK), Channel 136 (5680.0 MHz)

# **Device Under Test Properties**

Model, Manufacturer	Dimensions [mm]	IMEI	DUT Type
A3113,	306.0 x 214.0 x 10.0		Laptop

## **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	BACK, 0.00	U-NII-2C, U- NII-3	WLAN, 10196-CAD	, 136	4.75	4.90	33.1

#### **Hardware Setup**

Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V8.0 (20deg probe tilt) -	HBBL-600-10000 DAK 3.5 Head 20.15 deg.C 2023-Oct-23 SYS6	EX3DV4 - SN7809, 2023-	DAE4ip Sn1789, 2023-
2203	B6.prn, 2023-Oct-23	05-03	05-02

	Area Scan	Zoom Scan	Zoom Scan
Grid Extents [mm]	x 240.0	22.0 x 22.0 x 22.0	22.0 x 22.0 x 22.0
Grid Steps [mm]	10.0 x 10.0	4.0 x 4.0 x 1.4	4.0 x 4.0 x 1.4
Sensor Surface [mm]	3.0	1.4	1.4
Graded Grid	NS	Yes	Yes
Grading Ratio	NS	1.4	1.4
MAIA	Y	NS	NS
Surface Detection	All points	VMS + 6p	VMS + 6p
Scan Method	Measured	Measured	Measured
Measurement Results			
	Area	Scan Zoom Sca	an Zoom Scan
Date	2023-10-25, 0	0:13 2023-10-25, 00:2	20 2023-10-25, 00:29
psSAR1g [W/Kg]	C	0.594 0.66	0.521
psSAR10g [W/Kg]	O	0.210 0.22	0.171
Power Drift [dB]		-0.00 0.0	-0.03
Power Scaling	Disa	bled Disable	d Disabled
Scaling Factor [dB]			
TSL Correction	Positive	only Positive or	ly Positive only
M2/M1 [%]		59	.7 58.7
Dist 3dB Peak [mm]		7	.2 7.4



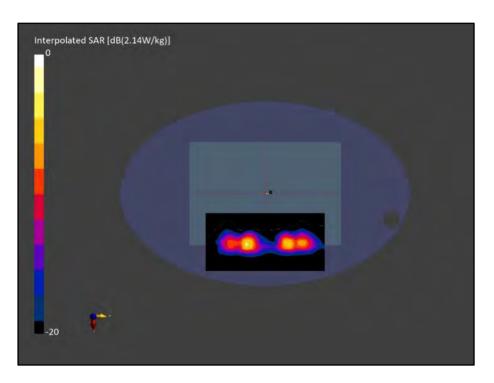


Figure C.25: SAR Testing Results for the A3113 at 5680 MHz Core 0 & Core 1



# Measurement Report for Device, BACK, WLAN 5 GHz, IEEE 802.11ac WiFi (80 MHz, MCS0, 99pc duty cycle), Channel 155 (5775.0 MHz)

# **Device Under Test Properties**

Model, Manufacturer	Dimensions [mm]	IMEI	DUT Type
A3113,	306.0 x 214.0 x 10.0		Laptop

## **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	BACK, 0.00	WLAN 5 GHz	WLAN, 10544- AAC	5775.0, 155	4.83	5.17	33.0

#### **Hardware Setup**

Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V8.0 (20deg probe tilt) -	HBBL-600-10000 DAK 3.5 Head 20.7 deg.C 2023-Oct-20 SYS6	EX3DV4 - SN7809, 2023-	DAE4ip Sn1789, 2023-
2203	B6.prn, 2023-Oct-20	05-03	05-02

		Area Scan	Zoom Scan
Grid Extents [mm]		120.0 x 180.0	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
Graded Grid		NS	Yes
Grading Ratio		NS	1.4
MAIA		Y	NS
Surface Detection		VMS + 6p	VMS + 6p
Scan Method		Measured	Measured
Measurement Results			
		Area Scar	a Zoom Scan
Date	2023-10-21, 04:52		2 2023-10-21, 05:01
psSAR1g [W/Kg]	0.69		5 0.781
psSAR10g [W/Kg]		0.229	0.241
Power Drift [dB]	0.03		-0.04
Power Scaling	Disablec		Disabled
Scaling Factor [dB]			
TSL Correction	Positive only		/ Positive only
M2/M1 [%]			58.0
Dist 3dB Peak [mm]			6.4



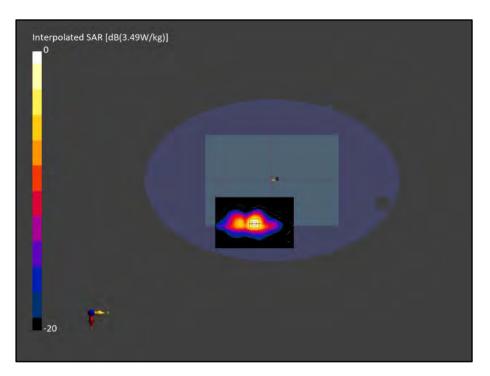


Figure C.26: SAR Testing Results for the A3113 at 5775 MHz Core 0



# Measurement Report for A3113, BACK, WLAN 5 GHz, IEEE 802.11ac WiFi (80 MHz, MCS0, 99pc duty cycle), Channel 155 (5775.0 MHz)

# **Device Under Test Properties**

Model, Manufacturer	Dimensions [mm]	IMEI	DUT Type
A3113,	306.0 x 214.0 x 10.0		Laptop

#### **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	BACK, 0.00	WLAN 5 GHz	WLAN, 10544- AAC	5775.0, 155	4.83	5.01	32.9

#### **Hardware Setup**

Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V8.0 (20deg probe tilt) -	HBBL-600-10000 DAK 3.5 Head 20.15 deg.C 2023-Oct-23 SYS6	EX3DV4 - SN7809, 2023-	DAE4ip Sn1789, 2023-
2203	B6.prn, 2023-Oct-23	05-03	05-02

	Area Scan	Zoom Scan
Grid Extents [mm]	120.0 x 180.0	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
Graded Grid	NS	Yes
Grading Ratio	NS	1.4
MAIA	Y	NS
Surface Detection	VMS + 6p	VMS + 6p
Scan Method	Measured	Measured
Measurement Results		
	Area Scar	a Zoom Scan
Date	2023-10-23, 13:56	5 2023-10-23, 14:05
psSAR1g [W/Kg]	0.442	2 0.486
psSAR10g [W/Kg]	0.149	0.161
Power Drift [dB]	0.01	0.00
Power Scaling	Disablec	Disabled
Scaling Factor [dB]		
TSL Correction	Positive only	/ Positive only
M2/M1 [%]		57.5
Dist 3dB Peak [mm]		8.0



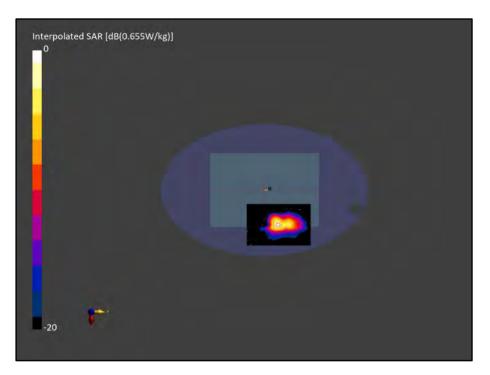


Figure C.27: SAR Testing Results for the A3113 at 5775 MHz Core 1



# Measurement Report for A3113, BACK, WLAN 5 GHz, IEEE 802.11ac WiFi (80 MHz, MCS0, 99pc duty cycle), Channel 155 (5775.0 MHz)

# **Device Under Test Properties**

Model, Manufacturer	Dimensions [mm]	IMEI	DUT Type
A3113,	306.0 x 214.0 x 10.0		Laptop

#### **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	BACK, 0.00	WLAN 5 GHz	WLAN, 10544- AAC	, 155	4.83	5.01	32.9

#### **Hardware Setup**

Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V8.0 (20deg probe tilt) -	HBBL-600-10000 DAK 3.5 Head 20.15 deg.C 2023-Oct-23 SYS6	EX3DV4 - SN7809, 2023-	DAE4ip Sn1789, 2023-
2203	B6.prn, 2023-Oct-23	05-03	05-02

•	Area Scan	Zoom Scan	Zoom Scan
Grid Extents [mm]	x 260.0	22.0 x 22.0 x 22.0	22.0 x 22.0 x 22.0
Grid Steps [mm]	10.0 x 10.0	4.0 x 4.0 x 1.4	4.0 x 4.0 x 1.4
Sensor Surface [mm]	3.0		
Graded Grid	NS	Yes	1.4 Yes
Grading Ratio	NS	1.4	1.4
•			
MAIA	Y	NS	NS
Surface Detection	VMS + 6p	VMS + 6p	VMS + 6p
Scan Method	Measured	Measured	Measured
Measurement Results			
	Area S	can Zoom Scar	n Zoom Scan
Date	2023-10-23, 22	2:39 2023-10-23, 22:47	2023-10-23, 22:56
psSAR1g [W/Kg]	0.	657 0.738	3 0.467
psSAR10g [W/Kg]	0.	217 0.229	0.152
Power Drift [dB]	-(	0.03 -0.08	-0.01
Power Scaling	Disat	oled Disabled	l Disabled
Scaling Factor [dB]			
TSL Correction	Positive	only Positive only	Positive only
M2/M1 [%]		58.1	57.8
Dist 3dB Peak [mm]		7.2	2 8.0



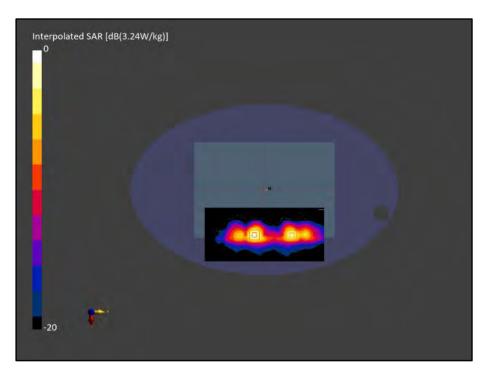


Figure C.28: SAR Testing Results for the A3113 at 5775 MHz Core 0 & Core 1



# Measurement Report for A3113, BACK, U-NII-5, IEEE 802.11ax (160 MHz, MCS0, 99pc duty cycle), Channel 15 (6025.0 MHz)

# **Device Under Test Properties**

Model, Manufacturer	Dimensions [mm]	IMEI	DUT Type
A3113,	306.0 x 214.0 x 10.0		Phone

### **Exposure Conditions**

	Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity
F	Flat, HSL	BACK, 0.00	U-NII- 5	WLAN, 10755- AAC	6025.0, 15	5.07	5.24	32.6

#### **Hardware Setup**

Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V8.0 (20deg probe tilt) -	HBBL-600-10000 DAK 3.5 Head 20.15 deg.C 2023-Oct-23 SYS6	EX3DV4 - SN7805, 2023-	DAE4ip Sn1786, 2023-
2202	B6.prn, 2023-Oct-23	04-06	04-03

	Area Scan	Zoom Scan
Grid Extents [mm]	120.0 x 180.0	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]	3.0	1.4
Graded Grid	NS	Yes
Grading Ratio	NS	1.4
MAIA	Y	Y
Surface Detection	VMS + 6p	VMS + 6p
Scan Method	Measured	Measured
Measurement Results		
	Area Sc	an Zoom Scan
Date	2023-10-25, 04:	32 2023-10-25, 04:43
psSAR1g [W/Kg]	0.20	0.318
psSAR10g [W/Kg]	0.08	39 0.098
Power Drift [dB]	0.1	20 0.04
Power Scaling	Disable	Disabled
Scaling Factor [dB]		
TSL Correction	Positive or	Ny Positive only
M2/M1 [%]		52.5
Dist 3dB Peak [mm]		6.2



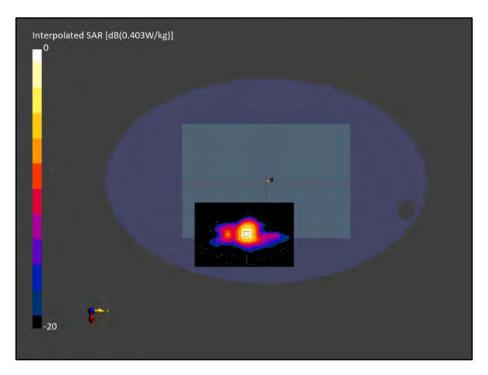


Figure C.29: SAR Testing Results for the A3113 at 6025 MHz Core 0



# Measurement Report for A3113, BACK, U-NII-8, IEEE 802.11ax (160MHz, MCS0, 99pc duty cycle), Channel 207 (6985.0 MHz)

### **Device Under Test Properties**

Model, Manufacturer	Dimensions [mm]	IMEI	DUT Type
A3113,	306.0 x 214.0 x 10.0		Phone

### **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	BACK, 0.00	U-NII- 8	WLAN, 10755- AAC	6985.0, 207	5.07	6.66	31.7

#### **Hardware Setup**

Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V8.0 (20deg probe tilt) -	HBBL-600-10000 DAK 3.5 Head 21.5 deg.C 2023-Oct-25	EX3DV4 - SN7805, 2023-	DAE4ip Sn1786, 2023-
2202	09_19_27.prn, 2023-Oct-25	04-06	04-03

	Area Scan	Zoom Scan
Grid Extents [mm]	136.0 x 187.0	22.0 x 22.0 x 22.0
Grid Steps [mm]	8.5 x 8.5	3.4 x 3.4 x 1.4
Sensor Surface [mm]	3.0	1.4
Graded Grid	n/a	Yes
Grading Ratio	n/a	1.4
MAIA	Y	Y
Surface Detection	VMS + 6p	VMS + 6p
Scan Method	Measured	Measured
Measurement Results		
	Area Sca	n Zoom Scan
Date	2023-10-25, 19:5	7 2023-10-25, 20:08
psSAR1g [W/Kg]	0.32	2 0.356
psSAR10g [W/Kg]	0.10	6 0.112
Power Drift [dB]	0.50	0.02
Power Scaling	Disable	Disabled
Scaling Factor [dB]		
TSL Correction	Positive on	y Positive only
M2/M1 [%]		46.8
Dist 3dB Peak [mm]		8.2



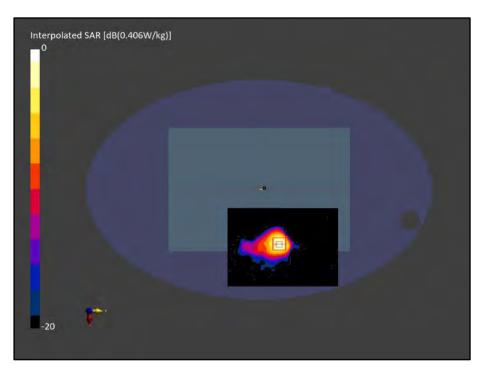


Figure C.30: SAR Testing Results for the A3113 at 6985 MHz Core 1



# Measurement Report for A3113, BACK, U-NII-5, IEEE 802.11ax (160 MHz, MCS0, 99pc duty cycle), Channel 15 (6665.0 MHz)

# **Device Under Test Properties**

Model, Manufacturer	Dimensions [mm]	IMEI	DUT Type
A3113,	306.0 x 214.0 x 10.0		Laptop

### **Exposure Conditions**

Phantom Sectio TSL	n, Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity
Flat, HSL	BACK, 0.00	U-NII- 5	WLAN, 10755- AAC	, 143	5.07	5.50	33.4

#### **Hardware Setup**

Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V8.0 (20deg probe tilt) -	HBBL-600-10000 DAK 3.5 Head 21.5 deg.C 2023-Oct-25	EX3DV4 - SN7805, 2023-	DAE4ip Sn1786, 2023-
2202	09_19_27.prn, 2023-Oct-25	04-06	04-03

	Area Scan	Zoom Scan	Zoom Scan
Grid Extents [mm]	x 255.0	22.0 x 22.0 x 22.0	22.0 x 22.0 x 22.0
Grid Steps [mm]	8.5 x 8.5	3.4 x 3.4 x 1.4	3.4 x 3.4 x 1.4
Sensor Surface [mm]	3.0	1.4	1.4
Graded Grid	NS	Yes	Yes
Grading Ratio	NS	1.4	1.4
MAIA	Y	Y	Y
Surface Detection	VMS + 6p	VMS + 6p	VMS + 6p
Scan Method	Measured	Measured	Measured
Measurement Results			
	Area	Scan Zoom Sc	an Zoom Scan

	Area Scan	Zoom Scan	Zoom Scan
Date	2023-10-25, 22:36	2023-10-25, 22:45	2023-10-25, 22:56
psSAR1g [W/Kg]	0.294	0.258	0.298
psSAR10g [W/Kg]	0.095	0.102	0.087
Power Drift [dB]	0.31	0.19	0.20
Power Scaling	Disabled	Disabled	Disabled
Scaling Factor [dB]			
TSL Correction	Positive only	Positive only	Positive only
M2/M1 [%]		52.7	52.9
Dist 3dB Peak [mm]		6.8	7.5



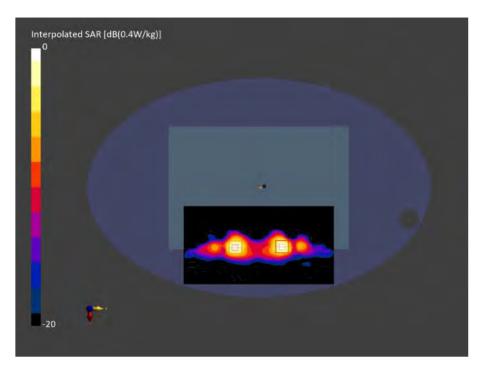


Figure C.31: SAR Testing Results for the A3113 at 6665 MHz Core 0 & Core 1



# Measurement Report for A3113, BACK, U-NII-8, IEEE 802.11ax (160 MHz, MCS0, 99pc duty cycle), Channel 207 (6985.0 MHz)

### **Device Under Test Properties**

Model, Manufacturer	Dimensions [mm]	IMEI	DUT Type
A3113,	306.0 x 214.0 x 10.0		Laptop

### **Exposure Conditions**

Phantom Section	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor
5G	BACK, 2.00	U-NII-8	WLAN, 10755-AAC	6985.0, 207	1.0

#### Hardware Setup

Phantom	Medium	Probe, Calibration Date	DAE, Calibration Date	
mmWave - 1112	Air -	EUmmWV4 - SN9641_F1-55 GHz, 2022-10-25	DAE4ip Sn1785, 2023-04-03	

Scan Type		5G Scan
Grid Extents [mm]		100.0 x 100.0
Grid Steps [lambda]		0.047559807339951216 x 0.047559807339951216
Sensor Surface [mm]		2.0
MAIA		Y
Measurement Results		
Scan Type		5G Scan
Date		2023-11-09, 19:40
Avg. Area [cm <sup>2</sup> ]		4.00
psPDn+ [W/m²]		1.17
psPDtot+ [W/m <sup>2</sup> ]		2.17
psPDmod+ [W/m²]		3.56
E <sub>max</sub> [V/m]		66.8
Power Drift [dB]		0.22



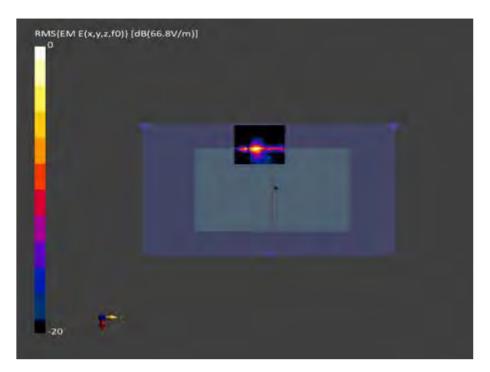


Figure C.32: iPD Testing Results for the A3113 at 6985 MHz



ANNEX D

# THREAD TECHOLOGY DUTY FACTOR CORRECTION



# A3113 Thread Scaling Rationale

The measured SAR Results for the Thread technology, as detailed in this document, are scaled down to 59.70% to adjust for the normal operating conditions of this technology as shown in figure 10. With the measured SAR Results having been taken with the device operating in a test mode, on a fixed channel with 100% duty cycle, as shown below in figure 9.

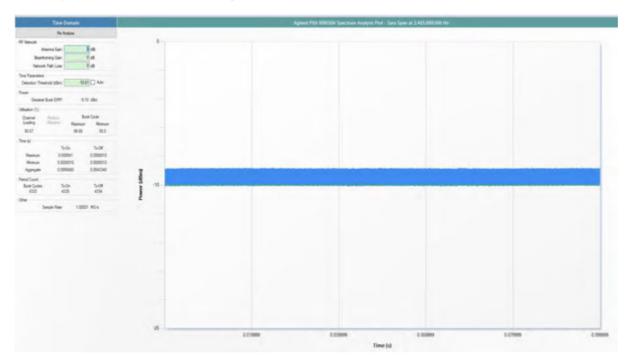


Figure 11 - Thread ePA - Frequency of 2405 MHz (100% Duty Cycle)

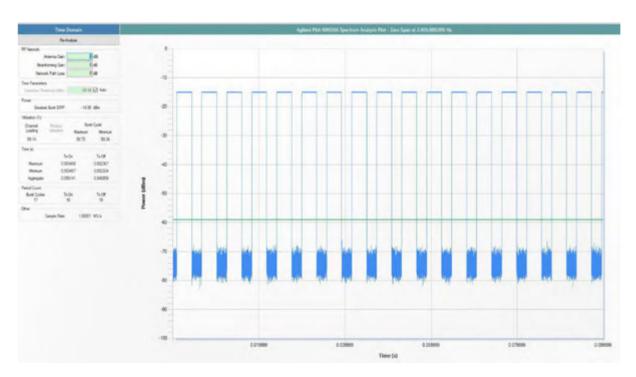


Figure 12 - Thread ePA - Frequency of 2405 MHz (59.70% Duty Cycle)