

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





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

## 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 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 far as not given on page 1.

DASY Version	DASY6	V16.2
Extrapolation	Advanced Extrapolation	
Phantom	Modular Flat Phantom	
Distance Dipole Center - TSL	5 mm	with Spacer
Zoom Scan Resolution	dx, dy = 3.4 mm, dz = 1.4 mm	Graded Ratio = 1.4 (Z direction)
Frequency	6500 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 mho/m
Measured Head TSL parameters	(22.0 ± 0.2) °C	34.6 ± 6 %	6.18 mho/m ± 6 %
Head TSL temperature change during test	< 0.5 °C		

## SAR result with Head TSL

SAR for nominal Head TSL parameters

SAR averaged over 1 cm <sup>3</sup> (1 g) of Head TSL	Condition	
SAR measured	100 mW input power	29.6 W/kg
SAR for nominal Head TSL parameters	normalized to 1W	296 W/kg ± 24.7 % (k=2)
	· · · · · · · · · · · · · · · · · · ·	
SAR averaged over 8 cm <sup>3</sup> (8 g) of Head TSL	Condition	
SAR measured	100 mW input power	6.66 W/kg
SAR for nominal Head TSL parameters	normalized to 1W	66.6 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

normalized to 1W

54.6 W/kg ± 24.4 % (k=2)

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

#### **Antenna Parameters with Head TSL**

Impedance, transformed to feed point	51.1 Ω - 3.5 jΩ
Return Loss	- 28.8 dB

## **APD (Absorbed Power Density)**

APD averaged over 1 cm <sup>2</sup>	Condition	
APD measured	100 mW input power	296 W/m <sup>2</sup>
APD measured	normalized to 1W	2960 W/m <sup>2</sup> ± 29.2 % (k=2)
APD averaged over 4 cm <sup>2</sup>	condition	
APD measured	100 mW input power	133 W/m <sup>2</sup>

\*The reported APD values have been derived using the psSAR1g and psSAR8g.

#### **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

Manufactured by	SPEAG
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# **DASY6 Validation Report for Head TSL**

Measurement Report for D6.5GHz-1070, UID 0 -, Channel 6500 (6500.0MHz)

Device under	Test Properties						
Name, Manufa	acturer I	Dimensions	[mm] IM	EI	DUT Type	e	
D6.5GHz		10.0 × 10.0 ;	x 10.0 SN	: 1070	a <del>n</del> e		
Exposure Con	ditions						
Phantom Section, TSL	Position, Tes Distance [mm]	t Band	Group, UID	Frequency [MHz]	Conversion Factor	TSL Cond. [S/m]	TSL Permittivity
Flat, HSL	5.00	Band	CW,	6500	5.50	6.18	34.6
Hardware Set Phantom	up	TSL		Probe, Cali	bration Date	DAE, Calit	oration Date
MFP V8.0 Cen	ter - 1182	HBBL600-10	0000V6	EX3DV4 - SI	N7405, 2023-06-12	DAE4 Sn9	08, 2023-07-03
Scan Setup				Measureme	ent Results		
			Zoom Scan				Zoom Scan
Grid Extents	[mm]		22.0 x 22.0 x 22.0	Date		2	023-11-02, 12:59
Grid Steps (m	nm]		3.4 x 3.4 x 1.4	psSAR1g [	W/Kg]		29.6
Sensor Surfa	ce [mm]		1.4	psSAR8g [	W/Kg]		6.66
Graded Grid			Yes	psSAR10g	[W/Kg]		5.46
Grading Ratio	0		1.4	Power Dri	ft [dB]		0.02
MAIA			N/A	Power Sca	ling		Disabled
Surface Dete	ction		VMS + 6p	Scaling Fa	ctor [dB]		
Scan Method	1		Measured	TSL Correc	ction		No correction
				M2/M1 [9	6]		51.2
				Dist 3dB P	eak [mm]		4.6



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## Impedance Measurement Plot for Head TSL



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ANNEX C

TEST RESULTS



# Measurement Report for A3401, 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
A3401,	315.0 x 225.0 x 15.0		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	ISM 2.4 GHz Band	Bluetooth, 10032-CAA	2480.0, 78	7.22	1.84	39.9

### Hardware Setup

Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V8.0 (20deg probe	HBBL-600-10000 DAK 3.5 Head ELI 21.58 deg.C 2024-	EX3DV4 - SN7804,	DAE4ip Sn1786,
tilt) - 2102	Oct-02 SYS3 B3.prn, 2024-Oct-02	2024-08-14	2024-08-07

#### Scans Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	140.0 x 200.0	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	n/a	Yes
Grading Ratio	n/a	1.5
MAIA	N/A	N/A
Surface Detection	VMS + 6p	VMS + 6p
Scan Method	Measured	Measured

	Area Scan	Zoom Scan
Date	2024-10-02, 21:13	2024-10-02, 21:25
psSAR1g [W/Kg]	0.240	0.247
psSAR10g [W/Kg]	0.117	0.111
Power Drift [dB]	-0.01	-0.03
Power Scaling	Disabled	Disabled
Scaling Factor [dB]		
TSL Correction	Positive only	Positive only
M2/M1 [%]		74.0
Dist 3dB Peak [mm]		8.6





Figure C.1: SAR testing results for the A3401 at 2480 MHz Core 0



## Measurement Report for A3401, 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
A3401,	315.0 x 225.0 x 15.0		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	ISM 2.4 GHz Band	Bluetooth, 10032-CAA	2480.0, 78	7.22	1.84	39.9

### Hardware Setup

Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V8.0 (20deg probe	HBBL-600-10000 DAK 3.5 Head ELI 21.58 deg.C 2024-	EX3DV4 - SN7804,	DAE4ip Sn1786,
tilt) - 2102	Oct-02 SYS3 B3.prn, 2024-Oct-02	2024-08-14	2024-08-07

## Scans Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	140.0 x 200.0	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	n/a	Yes
Grading Ratio	n/a	1.5
MAIA	N/A	N/A
Surface Detection	VMS + 6p	VMS + 6p
Scan Method	Measured	Measured

	Area Scan	Zoom Scan
Date	2024-10-02, 22:05	2024-10-02, 22:17
psSAR1g [W/Kg]	0.218	0.215
psSAR10g [W/Kg]	0.10	0.095
Power Drift [dB]	0.00	0.01
Power Scaling	Disabled	Disabled
Scaling Factor [dB]		
TSL Correction	Positive only	Positive only
M2/M1 [%]		74.8
Dist 3dB Peak [mm]		8.3





Figure C.2: SAR testing results for the A3401 at 2480 MHz Core 1



## Measurement Report for A3401, BACK, ISM 2.4 GHz Band, IEEE 802.15.1 Bluetooth (GFSK, DH5), Channel 39 (2441.0 MHz)

# Device Under Test Properties

Model, Manufacturer	Dimensions [mm]	IMEI	DUT Type
A3401,	315.0 x 225.0 x 15.0		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	ISM 2.4 GHz Band	Bluetooth, 10032-CAA	2441.0, 39	7.22	1.82	40.0

### Hardware Setup

Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V8.0 (20deg probe	HBBL-600-10000 DAK 3.5 Head ELI 21.58 deg.C 2024-	EX3DV4 - SN7804,	DAE4ip Sn1786,
tilt) - 2102	Oct-02 SYS3 B3.prn, 2024-Oct-02	2024-08-14	2024-08-07

## Scans Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	140.0 x 200.0	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	n/a	Yes
Grading Ratio	n/a	1.5
MAIA	Y	Y
Surface Detection	VMS + 6p	VMS + 6p
Scan Method	Measured	Measured

	Area Scan	Zoom Scan
Date	2024-10-02, 22:32	2024-10-02, 22:44
psSAR1g [W/Kg]	0.105	0.103
psSAR10g [W/Kg]	0.051	0.047
Power Drift [dB]	0.06	0.07
Power Scaling	Disabled	Disabled
Scaling Factor [dB]		
TSL Correction	Positive only	Positive only
M2/M1 [%]		74.2
Dist 3dB Peak [mm]		8.5





Figure C.3: SAR testing results for the A3401 at 2441 MHz Core 2



## Measurement Report for A3401, 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
A3401,	315.0 x 225.0 x 15.0		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	ISM 2.4 GHz Band	Bluetooth, 10032-CAA	2480.0, 78	7.22	1.84	39.9

### Hardware Setup

Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V8.0 (20deg probe	HBBL-600-10000 DAK 3.5 Head ELI 21.58 deg.C 2024-	EX3DV4 - SN7804,	DAE4ip Sn1786,
tilt) - 2102	Oct-02 SYS3 B3.prn, 2024-Oct-02	2024-08-14	2024-08-07

## Scans Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	140.0 x 200.0	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	n/a	Yes
Grading Ratio	n/a	1.5
MAIA	N/A	N/A
Surface Detection	VMS + 6p	VMS + 6p
Scan Method	Measured	Measured

	Area Scan	Zoom Scan
Date	2024-10-02, 21:13	2024-10-02, 21:25
psSAR1g [W/Kg]	0.240	0.247
psSAR10g [W/Kg]	0.117	0.111
Power Drift [dB]	-0.01	-0.03
Power Scaling	Disabled	Disabled
Scaling Factor [dB]		
TSL Correction	Positive only	Positive only
M2/M1 [%]		74.0
Dist 3dB Peak [mm]		8.6





Figure C.4: SAR testing results for the A3401 at 2480 MHz Core 0



## Measurement Report for A3401, 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
A3401,	315.0 x 225.0 x 15.0		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	ISM 2.4 GHz Band	Bluetooth, 10032-CAA	2480.0, 78	7.22	1.84	39.9

## Hardware Setup

Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V8.0 (20deg probe	HBBL-600-10000 DAK 3.5 Head ELI 21.58 deg.C 2024-	EX3DV4 - SN7804,	DAE4ip Sn1786,
tilt) - 2102	Oct-02 SYS3 B3.prn, 2024-Oct-02	2024-08-14	2024-08-07

## Scans Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	140.0 x 200.0	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	n/a	Yes
Grading Ratio	n/a	1.5
MAIA	N/A	N/A
Surface Detection	VMS + 6p	VMS + 6p
Scan Method	Measured	Measured

	Area Scan	Zoom Scan
Date	2024-10-02, 22:05	2024-10-02, 22:17
psSAR1g [W/Kg]	0.218	0.215
psSAR10g [W/Kg]	0.10	0.095
Power Drift [dB]	0.00	0.01
Power Scaling	Disabled	Disabled
Scaling Factor [dB]		
TSL Correction	Positive only	Positive only
M2/M1 [%]		74.8
Dist 3dB Peak [mm]		8.3





Figure C.5: SAR testing results for the A3401 at 2480 MHz Core 1



## Measurement Report for A3401, BACK, ISM 2.4 GHz Band, IEEE 802.15.1 Bluetooth (GFSK, DH5), Channel 39 (2441.0 MHz)

# Device Under Test Properties

Model, Manufacturer	Dimensions [mm]	IMEI	DUT Type
A3401,	315.0 x 225.0 x 15.0		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	ISM 2.4 GHz Band	Bluetooth, 10032-CAA	2441.0, 39	7.22	1.82	40.0

## Hardware Setup

Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V8.0 (20deg probe	HBBL-600-10000 DAK 3.5 Head ELI 21.58 deg.C 2024-	EX3DV4 - SN7804,	DAE4ip Sn1786,
tilt) - 2102	Oct-02 SYS3 B3.prn, 2024-Oct-02	2024-08-14	2024-08-07

## Scans Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	140.0 x 200.0	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	n/a	Yes
Grading Ratio	n/a	1.5
MAIA	Y	Y
Surface Detection	VMS + 6p	VMS + 6p
Scan Method	Measured	Measured

	Area Scan	Zoom Scan
Date	2024-10-02, 22:32	2024-10-02, 22:44
psSAR1g [W/Kg]	0.105	0.103
psSAR10g [W/Kg]	0.051	0.047
Power Drift [dB]	0.06	0.07
Power Scaling	Disabled	Disabled
Scaling Factor [dB]		
TSL Correction	Positive only	Positive only
M2/M1 [%]		74.2
Dist 3dB Peak [mm]		8.5





Figure C.6: SAR testing results for the A3401 at 2441 MHz Core 2



# Measurement Report for A3401, BACK, Custom Band, IEEE 802.15.1 Bluetooth (GFSK, DH5), Channel 5250000 (5250.0 MHz)

## Device Under Test Properties

Model, Manufacturer	Dimensions [mm]	IMEI	DUT Type
A3401,	315.0 x 225.0 x 15.0		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	Custom Band	CW, 10032- CAA	5250.0, 5250000	5.18	4.61	35.6

## Hardware Setup

Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V8.0 (20deg probe	HBBL-600-10000 DAK 3.5 Head ELI 21.11 deg.C 2024-	EX3DV4 - SN7805,	DAE4ip Sn1785,
tilt) - 2202	Oct -02 SYS5 B5.prn, 2024-Oct-02	2024-02-14	2024-02-13

## Scans Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	140.0 x 200.0	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	N/A
Surface Detection	VMS + 6p	VMS + 6p
Scan Method	Measured	Measured

	Area Scan	Zoom Scan
Date	2024-10-03, 11:26	2024-10-03, 11:35
psSAR1g [W/Kg]	0.482	0.536
psSAR10g [W/Kg]	0.178	0.178
Power Drift [dB]	0.06	-0.10
Power Scaling	Disabled	Disabled
Scaling Factor [dB]		
TSL Correction	Positive only	Positive only
M2/M1 [%]		60.4
Dist 3dB Peak [mm]		8.0





Figure C.7: SAR testing results for the A3401 at 5250 MHz Core 0



# Measurement Report for A3401, BACK, Custom Band, IEEE 802.15.1 Bluetooth (GFSK, DH5), Channel 5200000 (5200.0 MHz)

## Device Under Test Properties

Model, Manufacturer	Dimensions [mm]	IMEI	DUT Type
A3401,	315.0 x 225.0 x 15.0		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	Custom Band	CW, 10032- CAA	5200.0, 5200000	5.18	4.55	35.7

## Hardware Setup

Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V8.0 (20deg probe	HBBL-600-10000 DAK 3.5 Head ELI 21.11 deg.C 2024-	EX3DV4 - SN7805,	DAE4ip Sn1785,
tilt) - 2202	Oct -02 SYS5 B5.prn, 2024-Oct-02	2024-02-14	2024-02-13

## Scans Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	140.0 x 200.0	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	N/A	N/A
Surface Detection	VMS + 6p	VMS + 6p
Scan Method	Measured	Measured

	Area Scan	Zoom Scan
Date	2024-10-03, 12:48	2024-10-03, 12:56
psSAR1g [W/Kg]	0.723	0.738
psSAR10g [W/Kg]	0.254	0.256
Power Drift [dB]	0.07	0.05
Power Scaling	Disabled	Disabled
Scaling Factor [dB]		
TSL Correction	Positive only	Positive only
M2/M1 [%]		60.7
Dist 3dB Peak [mm]		8.0





Figure C.8: SAR testing results for the A3401 at 5200 MHz Core 1



# Measurement Report for A3401, BACK, Custom Band, IEEE 802.15.1 Bluetooth (GFSK, DH5), Channel 5850000 (5850.000 MHz)

## Device Under Test Properties

Model, Manufacturer	Dimensions [mm]	IMEI	DUT Type
A3401,	315.0 x 225.0 x 15.0		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	Custom Band	CW, 10032- CAA	5850.000, 5850000	4.63	5.30	34.5

# Hardware Setup

Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V8.0 (20deg probe	HBBL-600-10000 DAK 3.5 Head ELI 21.11 deg.C 2024-	EX3DV4 - SN7805,	DAE4ip Sn1785,
tilt) - 2202	Oct -02 SYS5 B5.prn, 2024-Oct-02	2024-02-14	2024-02-13

## Scans Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	140.0 x 200.0	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	N/A
Surface Detection	VMS + 6p	VMS + 6p
Scan Method	Measured	Measured

	Area Scan	Zoom Scan
Date	2024-10-03, 20:18	2024-10-03, 20:30
psSAR1g [W/Kg]	0.474	0.535
psSAR10g [W/Kg]	0.158	0.167
Power Drift [dB]	0.14	0.12
Power Scaling	Disabled	Disabled
Scaling Factor [dB]		
TSL Correction	No correction	No correction
M2/M1 [%]		54.8
Dist 3dB Peak [mm]		8.0





Figure C.9: SAR testing results for the A3401 at 5850 MHz Core 0



# Measurement Report for A3401, BACK, Custom Band, IEEE 802.15.1 Bluetooth (GFSK, DH5), Channel 5725000 (5725.0 MHz)

## Device Under Test Properties

Model, Manufacturer	Dimensions [mm]	IMEI	DUT Type
A3401,	315.0 x 225.0 x 15.0		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	Custom Band	CW, 10032- CAA	5725.0, 5725000	4.63	5.15	34.7

# Hardware Setup

Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V8.0 (20deg probe	HBBL-600-10000 DAK 3.5 Head ELI 21.11 deg.C 2024-	EX3DV4 - SN7805,	DAE4ip Sn1785,
tilt) - 2202	Oct -02 SYS5 B5.prn, 2024-Oct-02	2024-02-14	2024-02-13

## Scans Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	140.0 x 200.0	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	N/A
Surface Detection	VMS + 6p	VMS + 6p
Scan Method	Measured	Measured

	Area Scan	Zoom Scan
Date	2024-10-03, 20:48	2024-10-03, 20:59
psSAR1g [W/Kg]	0.653	0.707
psSAR10g [W/Kg]	0.242	0.239
Power Drift [dB]	0.02	0.01
Power Scaling	Disabled	Disabled
Scaling Factor [dB]		
TSL Correction	Positive only	Positive only
M2/M1 [%]		57.7
Dist 3dB Peak [mm]		8.2





Figure C.10: SAR testing results for the A3401 at 5725 MHz Core 1



# Measurement Report for A3401, BACK, Custom Band, IEEE 802.15.1 Bluetooth (GFSK, DH5), Channel 5250000 (5250.0 MHz)

## Device Under Test Properties

Model, Manufacturer	Dimensions [mm]	IMEI	DUT Type
A3401,	315.0 x 225.0 x 15.0		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	Custom Band	CW, 10032- CAA	5250.0, 5250000	5.18	4.61	35.6

# Hardware Setup

Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V8.0 (20deg probe	HBBL-600-10000 DAK 3.5 Head ELI 21.11 deg.C 2024-	EX3DV4 - SN7805,	DAE4ip Sn1785,
tilt) - 2202	Oct -02 SYS5 B5.prn, 2024-Oct-02	2024-02-14	2024-02-13

## Scans Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	140.0 x 200.0	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

	Area Scan	Zoom Scan
Date	2024-10-03, 06:44	2024-10-03, 06:52
psSAR1g [W/Kg]	0.186	0.202
psSAR10g [W/Kg]	0.066	0.063
Power Drift [dB]	0.25	0.00
Power Scaling	Disabled	Disabled
Scaling Factor [dB]		
TSL Correction	Positive only	Positive only
M2/M1 [%]		58.9
Dist 3dB Peak [mm]		8.0





Figure C.11: SAR testing results for the A3401 at 5250 MHz Core 0



# Measurement Report for A3401, BACK, Custom Band, IEEE 802.15.1 Bluetooth (GFSK, DH5), Channel 5250000 (5250.0 MHz)

## Device Under Test Properties

Model, Manufacturer	Dimensions [mm]	IMEI	DUT Type
A3401,	315.0 x 225.0 x 15.0		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	Custom Band	CW, 10032- CAA	5250.0, 5250000	5.18	4.61	35.6

# Hardware Setup

Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V8.0 (20deg probe	HBBL-600-10000 DAK 3.5 Head ELI 21.11 deg.C 2024-	EX3DV4 - SN7805,	DAE4ip Sn1785,
tilt) - 2202	Oct -02 SYS5 B5.prn, 2024-Oct-02	2024-02-14	2024-02-13

## Scans Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	140.0 x 200.0	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

	Area Scan	Zoom Scan
Date	2024-10-03, 14:56	2024-10-03, 15:05
psSAR1g [W/Kg]	0.333	0.345
psSAR10g [W/Kg]	0.116	0.115
Power Drift [dB]	0.17	0.00
Power Scaling	Disabled	Disabled
Scaling Factor [dB]		
TSL Correction	Positive only	Positive only
M2/M1 [%]		61.3
Dist 3dB Peak [mm]		8.4





Figure C.12: SAR testing results for the A3401 at 5250 MHz Core 1



# Measurement Report for A3401, BACK, Custom Band, IEEE 802.15.1 Bluetooth (GFSK, DH5), Channel 5850000 (5850.0 MHz)

## Device Under Test Properties

Model, Manufacturer	Dimensions [mm]	IMEI	DUT Type
A3401,	315.0 x 225.0 x 15.0		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	Custom Band	CW, 10032- CAA	5850.0, 5850000	4.63	5.30	34.5

# Hardware Setup

Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V8.0 (20deg probe	HBBL-600-10000 DAK 3.5 Head ELI 21.11 deg.C 2024-	EX3DV4 - SN7805,	DAE4ip Sn1785,
tilt) - 2202	Oct -02 SYS5 B5.prn, 2024-Oct-02	2024-02-14	2024-02-13

## Scans Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	140.0 x 200.0	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

	Area Scan	Zoom Scan
Date	2024-10-04, 00:59	2024-10-04, 01:06
psSAR1g [W/Kg]	0.184	0.203
psSAR10g [W/Kg]	0.063	0.059
Power Drift [dB]	0.26	0.24
Power Scaling	Disabled	Disabled
Scaling Factor [dB]		
TSL Correction	Positive only	Positive only
M2/M1 [%]		57.6
Dist 3dB Peak [mm]		7.2





Figure C.13: SAR testing results for the A3401 at 5850 MHz Core 0



# Measurement Report for A3401, BACK, Custom Band, IEEE 802.15.1 Bluetooth (GFSK, DH5), Channel 5725000 (5725.0 MHz)

## Device Under Test Properties

Model, Manufacturer	Dimensions [mm]	IMEI	DUT Type
A3401,	315.0 x 225.0 x 15.0		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	Custom Band	CW, 10032- CAA	5725.0, 5725000	4.63	5.15	34.7

## Hardware Setup

Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V8.0 (20deg probe	HBBL-600-10000 DAK 3.5 Head ELI 21.11 deg.C 2024-	EX3DV4 - SN7805,	DAE4ip Sn1785,
tilt) - 2202	Oct -02 SYS5 B5.prn, 2024-Oct-02	2024-02-14	2024-02-13

## Scans Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	140.0 x 200.0	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

	Area Scan	Zoom Scan
Date	2024-10-04, 01:32	2024-10-04, 01:39
psSAR1g [W/Kg]	0.289	0.304
psSAR10g [W/Kg]	0.105	0.099
Power Drift [dB]	-0.02	-0.08
Power Scaling	Disabled	Disabled
Scaling Factor [dB]		
TSL Correction	Positive only	Positive only
M2/M1 [%]		57.4
Dist 3dB Peak [mm]		8.7





Figure C.14: SAR testing results for the A3401 at 5725 MHz Core 1



## Measurement Report for A3401, BACK, Custom Band, CW, Channel 2480000 (2480.0 MHz)

# Device Under Test Properties

Model, Manufacturer	Dimensions [mm]	IMEI	DUT Type
A3401,	315.0 x 225.0 x 15.0		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	Custom Band	CW, 0	2480.0, 2480000	7.22	1.84	39.9

# Hardware Setup

Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V8.0 (20deg probe	HBBL-600-10000 DAK 3.5 Head ELI 21.58 deg.C 2024-	EX3DV4 - SN7804,	DAE4ip Sn1786,
tilt) - 2102	Oct-02 SYS3 B3.prn, 2024-Oct-02	2024-08-14	2024-08-07

#### Scans Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	140.0 x 200.0	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	n/a	Yes
Grading Ratio	n/a	1.5
MAIA	N/A	N/A
Surface Detection	VMS + 6p	VMS + 6p
Scan Method	Measured	Measured

	Area Scan	Zoom Scan
Date	2024-10-02, 13:15	2024-10-02, 13:26
psSAR1g [W/Kg]	1.04	1.06
psSAR10g [W/Kg]	0.511	0.487
Power Drift [dB]	0.02	-0.01
Power Scaling	Disabled	Disabled
Scaling Factor [dB]		
TSL Correction	Positive only	Positive only
M2/M1 [%]		74.6
Dist 3dB Peak [mm]		8.6





Figure C.15: SAR testing results for the A3401 at 2480 MHz Core 0


# Device Under Test Properties

Model, Manufacturer	Dimensions [mm]	IMEI	DUT Type
A3401,	315.0 x 225.0 x 15.0		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	Custom Band	CW, 0	2480.0, 2480000	7.22	1.84	39.9

# Hardware Setup

Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V8.0 (20deg probe	HBBL-600-10000 DAK 3.5 Head ELI 21.58 deg.C 2024-	EX3DV4 - SN7804,	DAE4ip Sn1786,
tilt) - 2102	Oct-02 SYS3 B3.prn, 2024-Oct-02	2024-08-14	2024-08-07

#### Scans Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	140.0 x 200.0	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	n/a	Yes
Grading Ratio	n/a	1.5
MAIA	N/A	N/A
Surface Detection	VMS + 6p	VMS + 6p
Scan Method	Measured	Measured

	Area Scan	Zoom Scan
Date	2024-10-02, 16:06	2024-10-02, 16:18
psSAR1g [W/Kg]	0.817	0.815
psSAR10g [W/Kg]	0.387	0.362
Power Drift [dB]	-0.04	-0.03
Power Scaling	Disabled	Disabled
Scaling Factor [dB]		
TSL Correction	Positive only	Positive only
M2/M1 [%]		75.5
Dist 3dB Peak [mm]		8.6





Figure C.16: SAR testing results for the A3401 at 2480 MHz Core 1



# Device Under Test Properties

Model, Manufacturer	Dimensions [mm]	IMEI	DUT Type
A3401,	315.0 x 225.0 x 15.0		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	Custom Band	CW, 0	2480.0, 2480000	7.22	1.84	39.9

# Hardware Setup

Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V8.0 (20deg probe	HBBL-600-10000 DAK 3.5 Head ELI 21.58 deg.C 2024-	EX3DV4 - SN7804,	DAE4ip Sn1786,
tilt) - 2102	Oct-02 SYS3 B3.prn, 2024-Oct-02	2024-08-14	2024-08-07

#### Scans Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	140.0 x 200.0	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	n/a	Yes
Grading Ratio	n/a	1.5
MAIA	Y	N/A
Surface Detection	VMS + 6p	VMS + 6p
Scan Method	Measured	Measured

	Area Scan	Zoom Scan
Date	2024-10-02, 17:42	2024-10-02, 17:53
psSAR1g [W/Kg]	0.132	0.130
psSAR10g [W/Kg]	0.065	0.059
Power Drift [dB]	0.00	-0.00
Power Scaling	Disabled	Disabled
Scaling Factor [dB]		
TSL Correction	Positive only	Positive only
M2/M1 [%]		74.2
Dist 3dB Peak [mm]		8.5





Figure C.17: SAR testing results for the A3401 at 2480 MHz Core 2



# Device Under Test Properties

Model, Manufacturer	Dimensions [mm]	IMEI	DUT Type
A3401,	315.0 x 225.0 x 15.0		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	Custom Band	CW, 0	2480.0, 2480000	7.22	1.84	39.9

# Hardware Setup

Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V8.0 (20deg probe	HBBL-600-10000 DAK 3.5 Head ELI 21.58 deg.C 2024-	EX3DV4 - SN7804,	DAE4ip Sn1786,
tilt) - 2102	Oct-02 SYS3 B3.prn, 2024-Oct-02	2024-08-14	2024-08-07

#### Scans Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	140.0 x 200.0	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	n/a	Yes
Grading Ratio	n/a	1.5
MAIA	N/A	N/A
Surface Detection	VMS + 6p	VMS + 6p
Scan Method	Measured	Measured

	Area Scan	Zoom Scan
Date	2024-10-02, 19:06	2024-10-02, 19:18
psSAR1g [W/Kg]	0.305	0.312
psSAR10g [W/Kg]	0.148	0.141
Power Drift [dB]	0.04	-0.05
Power Scaling	Disabled	Disabled
Scaling Factor [dB]		
TSL Correction	Positive only	Positive only
M2/M1 [%]		74.1
Dist 3dB Peak [mm]		8.6





Figure C.18: SAR testing results for the A3401 at 2480 MHz Core 0



# Device Under Test Properties

Model, Manufacturer	Dimensions [mm]	IMEI	DUT Type
A3401,	315.0 x 225.0 x 15.0		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	Custom Band	CW, 0	2480.0, 2480000	7.22	1.84	39.9

# Hardware Setup

Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V8.0 (20deg probe	HBBL-600-10000 DAK 3.5 Head ELI 21.58 deg.C 2024-	EX3DV4 - SN7804,	DAE4ip Sn1786,
tilt) - 2102	Oct-02 SYS3 B3.prn, 2024-Oct-02	2024-08-14	2024-08-07

#### Scans Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	140.0 x 200.0	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	n/a	Yes
Grading Ratio	n/a	1.5
MAIA	N/A	N/A
Surface Detection	VMS + 6p	VMS + 6p
Scan Method	Measured	Measured

	Area Scan	Zoom Scan
Date	2024-10-02, 20:27	2024-10-02, 20:39
psSAR1g [W/Kg]	0.278	0.277
psSAR10g [W/Kg]	0.128	0.122
Power Drift [dB]	0.03	0.01
Power Scaling	Disabled	Disabled
Scaling Factor [dB]		
TSL Correction	Positive only	Positive only
M2/M1 [%]		75.0
Dist 3dB Peak [mm]		8.5





Figure C.19: SAR testing results for the A3401 at 2480 MHz Core 1



# Device Under Test Properties

Model, Manufacturer	Dimensions [mm]	IMEI	DUT Type
A3401,	315.0 x 225.0 x 15.0		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	Custom Band	CW, 0	2480.0, 2480000	7.22	1.84	39.9

# Hardware Setup

Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V8.0 (20deg probe	HBBL-600-10000 DAK 3.5 Head ELI 21.58 deg.C 2024-	EX3DV4 - SN7804,	DAE4ip Sn1786,
tilt) - 2102	Oct-02 SYS3 B3.prn, 2024-Oct-02	2024-08-14	2024-08-07

#### Scans Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	140.0 x 200.0	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	n/a	Yes
Grading Ratio	n/a	1.5
MAIA	Y	N/A
Surface Detection	VMS + 6p	VMS + 6p
Scan Method	Measured	Measured

	Area Scan	Zoom Scan
Date	2024-10-02, 17:42	2024-10-02, 17:53
psSAR1g [W/Kg]	0.132	0.130
psSAR10g [W/Kg]	0.065	0.059
Power Drift [dB]	0.00	-0.00
Power Scaling	Disabled	Disabled
Scaling Factor [dB]		
TSL Correction	Positive only	Positive only
M2/M1 [%]		74.2
Dist 3dB Peak [mm]		8.5





Figure C.20: SAR testing results for the A3401 at 2480 MHz Core 2



# Measurement Report for A3401, BACK, WLAN 2.4GHz, IEEE 802.11b WiFi 2.4 GHz (DSSS, 1 Mbps, 99pc duty cycle), Channel 11 (2462.0 MHz)

# **Device Under Test Properties**

Model, Manufacturer	Dimensions [mm]	IMEI	DUT Type
A3401,	315.0 x 225.0 x 15.0		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, 10415-AAA	2462.0, 11	7.22	1.81	39.6

#### Hardware Setup

Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V8.0 (20deg probe	HBBL-600-10000 DAK 3.5 Head ELI 20.90 deg.C 2024-	EX3DV4 - SN7804,	DAE4ip Sn1786,
tilt) - 2102	Sep-30 SYS3 B3.prn, 2024-Oct-01	2024-08-14	2024-08-07

#### Scans Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	140.0 x 200.0	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	n/a	Yes
Grading Ratio	n/a	1.5
MAIA	N/A	N/A
Surface Detection	VMS + 6p	VMS + 6p
Scan Method	Measured	Measured

	Area Scan	Zoom Scan
Date	2024-10-01, 18:25	2024-10-01, 18:37
psSAR1g [W/Kg]	0.743	0.769
psSAR10g [W/Kg]	0.373	0.357
Power Drift [dB]	-0.02	-0.03
Power Scaling	Disabled	Disabled
Scaling Factor [dB]		
TSL Correction	Positive only	Positive only
M2/M1 [%]		75.0
Dist 3dB Peak [mm]		9.0





Figure C.21: SAR testing results for the A3401 at 2462 MHz Core 0



# Measurement Report for A3401, BACK, WLAN 2.4GHz, IEEE 802.11g WiFi 2.4 GHz (ERP-OFDM, 6 Mbps, 99pc duty cycle), Channel 6 (2437.0 MHz)

#### Device Under Test Properties

Model, Manufacturer	Dimensions [mm]	IMEI	DUT Type
A3401,	315.0 x 225.0 x 15.0		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, 10416-AAA	2437.0, 6	7.22	1.79	39.6

#### Hardware Setup

Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V8.0 (20deg probe	HBBL-600-10000 DAK 3.5 Head ELI 20.90 deg.C 2024-	EX3DV4 - SN7804,	DAE4ip Sn1786,
tilt) - 2102	Sep-30 SYS3 B3.prn, 2024-Oct-01	2024-08-14	2024-08-07

#### Scans Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	140.0 x 200.0	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	n/a	Yes
Grading Ratio	n/a	1.5
MAIA	N/A	N/A
Surface Detection	VMS + 6p	VMS + 6p
Scan Method	Measured	Measured

	Area Scan	Zoom Scan
Date	2024-10-01, 19:18	2024-10-01, 19:29
psSAR1g [W/Kg]	0.722	0.749
psSAR10g [W/Kg]	0.363	0.349
Power Drift [dB]	-0.00	-0.00
Power Scaling	Disabled	Disabled
Scaling Factor [dB]		
TSL Correction	Positive only	Positive only
M2/M1 [%]		75.2
Dist 3dB Peak [mm]		9.0





Figure C.22: SAR testing results for the A3401 at 2437 MHz Core 0



# Measurement Report for A3401, BACK, WLAN 2.4GHz, IEEE 802.11b WiFi 2.4 GHz (DSSS, 1 Mbps, 99pc duty cycle), Channel 11 (2462.0 MHz)

# **Device Under Test Properties**

Model, Manufacturer	Dimensions [mm]	IMEI	DUT Type
A3401,	315.0 x 225.0 x 15.0		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, 10415-AAA	2462.0, 11	7.22	1.83	39.9

#### Hardware Setup

Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V8.0 (20deg probe	HBBL-600-10000 DAK 3.5 Head ELI 21.58 deg.C 2024-	EX3DV4 - SN7804,	DAE4ip Sn1786,
tilt) - 2102	Oct-02 SYS3 B3.prn, 2024-Oct-02	2024-08-14	2024-08-07

#### Scans Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	140.0 x 200.0	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	n/a	Yes
Grading Ratio	n/a	1.5
MAIA	N/A	N/A
Surface Detection	VMS + 6p	VMS + 6p
Scan Method	Measured	Measured

	Area Scan	Zoom Scan
Date	2024-10-03, 01:16	2024-10-03, 01:28
psSAR1g [W/Kg]	0.632	0.633
psSAR10g [W/Kg]	0.301	0.283
Power Drift [dB]	-0.00	-0.03
Power Scaling	Disabled	Disabled
Scaling Factor [dB]		
TSL Correction	Positive only	Positive only
M2/M1 [%]		75.0
Dist 3dB Peak [mm]		8.5





Figure C.23: SAR testing results for the A3401 at 2462 MHz Core 1



# Measurement Report for A3401, BACK, WLAN 2.4GHz, IEEE 802.11g WiFi 2.4 GHz (ERP-OFDM, 6 Mbps, 99pc duty cycle), Channel 10 (2457.0 MHz)

### **Device Under Test Properties**

Model, Manufacturer	Dimensions [mm]	IMEI	DUT Type
A3401,	315.0 x 225.0 x 15.0		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, 10416-AAA	2457.0, 10	7.22	1.83	39.9

#### Hardware Setup

Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V8.0 (20deg probe	HBBL-600-10000 DAK 3.5 Head ELI 21.58 deg.C 2024-	EX3DV4 - SN7804,	DAE4ip Sn1786,
tilt) - 2102	Oct-02 SYS3 B3.prn, 2024-Oct-02	2024-08-14	2024-08-07

#### Scans Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	140.0 x 200.0	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	n/a	Yes
Grading Ratio	n/a	1.5
ΜΑΙΑ	N/A	N/A
Surface Detection	VMS + 6p	VMS + 6p
Scan Method	Measured	Measured

	Area Scan	Zoom Scan
Date	2024-10-03, 01:49	2024-10-03, 02:01
psSAR1g [W/Kg]	0.698	0.703
psSAR10g [W/Kg]	0.333	0.316
Power Drift [dB]	0.01	0.02
Power Scaling	Disabled	Disabled
Scaling Factor [dB]		
TSL Correction	Positive only	Positive only
M2/M1 [%]		74.9
Dist 3dB Peak [mm]		8.5





Figure C.24: SAR testing results for the A3401 at 2457 MHz Core 1



# Measurement Report for A3401, BACK, WLAN 2.4GHz, 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
A3401,	315.0 x 225.0 x 15.0		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	, 10	7.22	1.83	39.9

#### Hardware Setup

Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V8.0 (20deg probe	HBBL-600-10000 DAK 3.5 Head ELI 21.58 deg.C 2024-	EX3DV4 - SN7804,	DAE4ip Sn1786,
tilt) - 2102	Oct-02 SYS3 B3.prn, 2024-Oct-02	2024-08-14	2024-08-07

#### Scans Setup

	Area Scan	Zoom Scan	Zoom Scan
Grid Extents [mm]	x 260.0	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

	Area Scan	Zoom Scan	Zoom Scan
Date	2024-10-03, 02:29	2024-10-03, 02:41	2024-10-03, 02:54
psSAR1g [W/Kg]	0.785	0.807	0.677
psSAR10g [W/Kg]	0.387	0.378	0.308
Power Drift [dB]	0.04	0.04	0.05
Power Scaling	Disabled	Disabled	Disabled
Scaling Factor [dB]			
TSL Correction	Positive only	Positive only	Positive only
M2/M1 [%]		74.5	75.3
Dist 3dB Peak [mm]		9.0	8.6





Figure C.25: SAR testing results for the A3401 at 2457 MHz Core 0 & Core 1



# Measurement Report for A3401, BACK, WLAN 5GHz, IEEE 802.11ac WiFi (80MHz, MCS0, 99pc duty cycle), Channel 42 (5210.0 MHz)

## **Device Under Test Properties**

Model, Manufacturer	Dimensions [mm]	IMEI	DUT Type
A3401,	315.0 x 225.0 x 15.0		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 5GHz	WLAN, 10544-AAC	5210.0, 42	5.18	4.56	35.6

#### Hardware Setup

Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V8.0 (20deg probe	HBBL-600-10000 DAK 3.5 Head ELI 21.11 deg.C 2024-	EX3DV4 - SN7805,	DAE4ip Sn1785,
tilt) - 2202	Oct -02 SYS5 B5.prn, 2024-Oct-02	2024-02-14	2024-02-13

#### Scans Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	140.0 x 200.0	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	N/A
Surface Detection	VMS + 6p	VMS + 6p
Scan Method	Measured	Measured

	Area Scan	Zoom Scan
Date	2024-10-02, 17:47	2024-10-02, 17:55
psSAR1g [W/Kg]	0.561	0.608
psSAR10g [W/Kg]	0.203	0.203
Power Drift [dB]	0.03	-0.09
Power Scaling	Disabled	Disabled
Scaling Factor [dB]		
TSL Correction	Positive only	Positive only
M2/M1 [%]		60.2
Dist 3dB Peak [mm]		8.0





Figure C.26: SAR testing results for the A3401 at 5210 MHz Core 0



# Measurement Report for A3401, BACK, WLAN 5GHz, IEEE 802.11ac WiFi (80MHz, MCS0, 99pc duty cycle), Channel 42 (5210.0 MHz)

# **Device Under Test Properties**

Model, Manufacturer	Dimensions [mm]	IMEI	DUT Type
A3401,	315.0 x 225.0 x 15.0		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 5GHz	WLAN, 10544-AAC	5210.0, 42	5.18	4.56	35.6

#### Hardware Setup

Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V8.0 (20deg probe	HBBL-600-10000 DAK 3.5 Head ELI 21.11 deg.C 2024-	EX3DV4 - SN7805,	DAE4ip Sn1785,
tilt) - 2202	Oct -02 SYS5 B5.prn, 2024-Oct-02	2024-02-14	2024-02-13

#### Scans Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	140.0 x 200.0	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	N/A
Surface Detection	VMS + 6p	VMS + 6p
Scan Method	Measured	Measured

	Area Scan	Zoom Scan
Date	2024-10-02, 18:05	2024-10-02, 18:14
psSAR1g [W/Kg]	0.544	0.584
psSAR10g [W/Kg]	0.194	0.197
Power Drift [dB]	0.09	-0.04
Power Scaling	Disabled	Disabled
Scaling Factor [dB]		
TSL Correction	Positive only	Positive only
M2/M1 [%]		61.3
Dist 3dB Peak [mm]		8.2





Figure C.27: SAR testing results for the A3401 at 5210 MHz Core 1



# Measurement Report for A3401, BACK, WLAN 5GHz, IEEE 802.11ac WiFi (80MHz, MCS0, 99pc duty cycle), Channel 42 (5210.0 MHz)

# **Device Under Test Properties**

Model, Manufacturer	Dimensions [mm]	IMEI	DUT Type
A3401,	315.0 x 225.0 x 15.0		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 5GHz	WLAN, 10544-AAC	, 42	5.18	4.56	35.6

#### Hardware Setup

Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V8.0 (20deg probe	HBBL-600-10000 DAK 3.5 Head ELI 21.11 deg.C 2024-	EX3DV4 - SN7805,	DAE4ip Sn1785,
tilt) - 2202	Oct -02 SYS5 B5.prn, 2024-Oct-02	2024-02-14	2024-02-13

#### Scans Setup

	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	1.4	1.4
Graded Grid	n/a	Yes	Yes
Grading Ratio	n/a	1.4	1.4
MAIA	Y	N/A	N/A
Surface Detection	VMS + 6p	VMS + 6p	VMS + 6p
Scan Method	Measured	Measured	Measured

	Area Scan	Zoom Scan	Zoom Scan
Date	2024-10-02, 18:31	2024-10-02, 18:39	2024-10-02, 18:48
psSAR1g [W/Kg]	0.575	0.605	0.607
psSAR10g [W/Kg]	0.206	0.203	0.206
Power Drift [dB]	0.04	0.00	0.06
Power Scaling	Disabled	Disabled	Disabled
Scaling Factor [dB]			
TSL Correction	Positive only	Positive only	Positive only
M2/M1 [%]		60.5	59.7
Dist 3dB Peak [mm]		8.8	8.0





Figure C.28: SAR testing results for the A3401 at 5210 MHz Core 0 & Core 1



# Measurement Report for A3401, BACK, WLAN 5GHz, IEEE 802.11ac WiFi (80MHz, MCS0, 99pc duty cycle), Channel 58 (5290.0 MHz)

# **Device Under Test Properties**

Model, Manufacturer	Dimensions [mm]	IMEI	DUT Type
A3401,	315.0 x 225.0 x 15.0		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 5GHz	WLAN, 10544-AAC	5290.0, 58	5.01	4.65	35.5

#### Hardware Setup

Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V8.0 (20deg probe	HBBL-600-10000 DAK 3.5 Head ELI 21.11 deg.C 2024-	EX3DV4 - SN7805,	DAE4ip Sn1785,
tilt) - 2202	Oct -02 SYS5 B5.prn, 2024-Oct-02	2024-02-14	2024-02-13

#### Scans Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	140.0 x 200.0	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	N/A
Surface Detection	VMS + 6p	VMS + 6p
Scan Method	Measured	Measured

	Area Scan	Zoom Scan
Date	2024-10-02, 19:00	2024-10-02, 19:08
psSAR1g [W/Kg]	0.651	0.703
psSAR10g [W/Kg]	0.233	0.233
Power Drift [dB]	0.03	0.02
Power Scaling	Disabled	Disabled
Scaling Factor [dB]		
TSL Correction	Positive only	Positive only
M2/M1 [%]		59.5
Dist 3dB Peak [mm]		8.0





Figure C.29: SAR testing results for the A3401 at 5290 MHz Core 0



# Measurement Report for A3401, BACK, WLAN 5GHz, IEEE 802.11ac WiFi (80MHz, MCS0, 99pc duty cycle), Channel 58 (5290.0 MHz)

## **Device Under Test Properties**

Model, Manufacturer	Dimensions [mm]	IMEI	DUT Type
A3401,	315.0 x 225.0 x 15.0		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 5GHz	WLAN, 10544-AAC	5290.0, 58	5.01	4.65	35.5

#### Hardware Setup

Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V8.0 (20deg probe	HBBL-600-10000 DAK 3.5 Head ELI 21.11 deg.C 2024-	EX3DV4 - SN7805,	DAE4ip Sn1785,
tilt) - 2202	Oct -02 SYS5 B5.prn, 2024-Oct-02	2024-02-14	2024-02-13

#### Scans Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	140.0 x 200.0	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	N/A
Surface Detection	VMS + 6p	VMS + 6p
Scan Method	Measured	Measured

	Area Scan	Zoom Scan
Date	2024-10-02, 19:17	2024-10-02, 19:26
psSAR1g [W/Kg]	0.595	0.628
psSAR10g [W/Kg]	0.212	0.212
Power Drift [dB]	0.01	0.04
Power Scaling	Disabled	Disabled
Scaling Factor [dB]		
TSL Correction	Positive only	Positive only
M2/M1 [%]		61.2
Dist 3dB Peak [mm]		9.0





Figure C.30: SAR testing results for the A3401 at 5290 MHz Core 1



# Measurement Report for A3401, BACK, WLAN 5GHz, IEEE 802.11ac WiFi (80MHz, MCS0, 99pc duty cycle), Channel 58 (5290.0 MHz)

# **Device Under Test Properties**

Model, Manufacturer	Dimensions [mm]	IMEI	DUT Type
A3401,	315.0 x 225.0 x 15.0		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 5GHz	WLAN, 10544-AAC	, 58	5.01	4.65	35.5

#### Hardware Setup

Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V8.0 (20deg probe	HBBL-600-10000 DAK 3.5 Head ELI 21.11 deg.C 2024-	EX3DV4 - SN7805,	DAE4ip Sn1785,
tilt) - 2202	Oct -02 SYS5 B5.prn, 2024-Oct-02	2024-02-14	2024-02-13

#### Scans Setup

	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	1.4	1.4
Graded Grid	n/a	Yes	Yes
Grading Ratio	n/a	1.4	1.4
MAIA	Y	N/A	N/A
Surface Detection	VMS + 6p	VMS + 6p	VMS + 6p
Scan Method	Measured	Measured	Measured

	Area Scan	Zoom Scan	Zoom Scan
Date	2024-10-02, 19:38	2024-10-02, 19:47	2024-10-02, 19:56
psSAR1g [W/Kg]	0.620	0.681	0.599
psSAR10g [W/Kg]	0.223	0.229	0.203
Power Drift [dB]	0.06	0.14	0.01
Power Scaling	Disabled	Disabled	Disabled
Scaling Factor [dB]			
TSL Correction	Positive only	Positive only	Positive only
M2/M1 [%]		59.2	61.2
Dist 3dB Peak [mm]		8.0	8.2





Figure C.31: SAR testing results for the A3401 at 5290 MHz Core 0 & Core 1



# Measurement Report for A3401, BACK, U-NII-2C < 5.65 GHz, IEEE 802.11ax (80MHz, MCS0, 99pc duty cycle), Channel 106 (5530.0 MHz)

# Device Under Test Properties

Model, Manufacturer	Dimensions [mm]	IMEI	DUT Type
A3401,	315.0 x 225.0 x 15.0		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 < 5.65 GHz	WLAN, 10731- AAC	5530.0, 106	4.75	4.93	35.0

#### Hardware Setup

Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V8.0 (20deg probe	HBBL-600-10000 DAK 3.5 Head ELI 21.11 deg.C 2024-	EX3DV4 - SN7805,	DAE4ip Sn1785,
tilt) - 2202	Oct -02 SYS5 B5.prn, 2024-Oct-02	2024-02-14	2024-02-13

#### Scans Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	140.0 x 200.0	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	N/A
Surface Detection	VMS + 6p	VMS + 6p
Scan Method	Measured	Measured

	Area Scan	Zoom Scan
Date	2024-10-02, 15:23	2024-10-02, 15:31
psSAR1g [W/Kg]	0.625	0.707
psSAR10g [W/Kg]	0.220	0.233
Power Drift [dB]	0.08	0.01
Power Scaling	Disabled	Disabled
Scaling Factor [dB]		
TSL Correction	Positive only	Positive only
M2/M1 [%]		58.2
Dist 3dB Peak [mm]		8.0





Figure C.32: SAR testing results for the A3401 at 5530 MHz Core 0



# Measurement Report for A3401, BACK, U-NII-2C Standalone, IEEE 802.11ax (80MHz, MCS0, 99pc duty cycle), Channel 138 (5690.0 MHz)

### Device Under Test Properties

Model, Manufacturer	Dimensions [mm]	IMEI	DUT Type
A3401,	315.0 x 225.0 x 15.0		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 Standalone	WLAN, 10731- AAC	5690.0, 138	4.56	5.11	34.8

# Hardware Setup

Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V8.0 (20deg probe	HBBL-600-10000 DAK 3.5 Head ELI 21.11 deg.C 2024-	EX3DV4 - SN7805,	DAE4ip Sn1785,
tilt) - 2202	Oct -02 SYS5 B5.prn, 2024-Oct-02	2024-02-14	2024-02-13

#### Scans Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	140.0 x 200.0	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	N/A
Surface Detection	VMS + 6p	VMS + 6p
Scan Method	Measured	Measured

	Area Scan	Zoom Scan
Date	2024-10-02, 15:42	2024-10-02, 15:51
psSAR1g [W/Kg]	0.655	0.721
psSAR10g [W/Kg]	0.242	0.244
Power Drift [dB]	0.14	-0.01
Power Scaling	Disabled	Disabled
Scaling Factor [dB]		
TSL Correction	Positive only	Positive only
M2/M1 [%]		57.3
Dist 3dB Peak [mm]		8.2





Figure C.33: SAR testing results for the A3401 at 5690 MHz Core 1


# Measurement Report for A3401, BACK, U-NII-2C < 5.65 GHz, IEEE 802.11ax (80MHz, MCS0, 99pc duty cycle), Channel 122 (5610.0 MHz)

## Device Under Test Properties

Model, Manufacturer	Dimensions [mm]	IMEI	DUT Type
A3401,	315.0 x 225.0 x 15.0		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 < 5.65 GHz	WLAN, 10731- AAC	, 122	4.56	5.02	34.9

## Hardware Setup

Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V8.0 (20deg probe	HBBL-600-10000 DAK 3.5 Head ELI 21.11 deg.C 2024-	EX3DV4 - SN7805,	DAE4ip Sn1785,
tilt) - 2202	Oct -02 SYS5 B5.prn, 2024-Oct-02	2024-02-14	2024-02-13

### Scans Setup

	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	1.4	1.4
Graded Grid	n/a	Yes	Yes
Grading Ratio	n/a	1.4	1.4
MAIA	Y	N/A	N/A
Surface Detection	VMS + 6p	VMS + 6p	VMS + 6p
Scan Method	Measured	Measured	Measured

	Area Scan	Zoom Scan	Zoom Scan
Date	2024-10-02, 16:05	2024-10-02, 16:15	2024-10-02, 16:26
psSAR1g [W/Kg]	0.656	0.699	0.508
psSAR10g [W/Kg]	0.240	0.230	0.162
Power Drift [dB]	-0.08	0.11	-0.51
Power Scaling	Disabled	Disabled	Disabled
Scaling Factor [dB]			
TSL Correction	Positive only	Positive only	Positive only
M2/M1 [%]		58.2	57.3
Dist 3dB Peak [mm]		8.2	8.0





Figure C.34: SAR testing results for the A3401 at 5610 MHz Core 0 & Core 1



## Measurement Report for A3401, BACK, WLAN 5GHz, IEEE 802.11ac WiFi (80MHz, MCS0, 99pc duty cycle), Channel 155 (5775.0 MHz)

## **Device Under Test Properties**

Model, Manufacturer	Dimensions [mm]	IMEI	DUT Type
A3401,	315.0 x 225.0 x 15.0		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 5GHz	WLAN, 10544-AAC	5775.0, 155	4.63	5.21	34.6

### Hardware Setup

Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V8.0 (20deg probe	HBBL-600-10000 DAK 3.5 Head ELI 21.11 deg.C 2024-	EX3DV4 - SN7805,	DAE4ip Sn1785,
tilt) - 2202	Oct -02 SYS5 B5.prn, 2024-Oct-02	2024-02-14	2024-02-13

### Scans Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	140.0 x 200.0	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	N/A
Surface Detection	VMS + 6p	VMS + 6p
Scan Method	Measured	Measured

	Area Scan	Zoom Scan
Date	2024-10-02, 20:45	2024-10-02, 20:56
psSAR1g [W/Kg]	0.472	0.557
psSAR10g [W/Kg]	0.164	0.177
Power Drift [dB]	0.16	0.14
Power Scaling	Disabled	Disabled
Scaling Factor [dB]		
TSL Correction	Positive only	Positive only
M2/M1 [%]		55.8
Dist 3dB Peak [mm]		7.3





Figure C.35: SAR testing results for the A3401 at 5775 MHz Core 0



## Measurement Report for A3401, BACK, WLAN 5GHz, IEEE 802.11ac WiFi (80MHz, MCS0, 99pc duty cycle), Channel 155 (5775.0 MHz)

## **Device Under Test Properties**

Model, Manufacturer	Dimensions [mm]	IMEI	DUT Type
A3401,	315.0 x 225.0 x 15.0		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 5GHz	WLAN, 10544-AAC	5775.0, 155	4.63	5.21	34.6

### Hardware Setup

Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V8.0 (20deg probe	HBBL-600-10000 DAK 3.5 Head ELI 21.11 deg.C 2024-	EX3DV4 - SN7805,	DAE4ip Sn1785,
tilt) - 2202	Oct -02 SYS5 B5.prn, 2024-Oct-02	2024-02-14	2024-02-13

## Scans Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	140.0 x 200.0	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	N/A
Surface Detection	VMS + 6p	VMS + 6p
Scan Method	Measured	Measured

	Area Scan	Zoom Scan
Date	2024-10-02, 21:06	2024-10-02, 21:15
psSAR1g [W/Kg]	0.669	0.697
psSAR10g [W/Kg]	0.242	0.242
Power Drift [dB]	0.11	0.08
Power Scaling	Disabled	Disabled
Scaling Factor [dB]		
TSL Correction	Positive only	Positive only
M2/M1 [%]		58.0
Dist 3dB Peak [mm]		8.7





Figure C.36: SAR testing results for the A3401 at 5775 MHz Core 1



## Measurement Report for A3401, BACK, WLAN 5GHz, IEEE 802.11ac WiFi (80MHz, MCS0, 99pc duty cycle), Channel 155 (5775.0 MHz)

## **Device Under Test Properties**

Model, Manufacturer	Dimensions [mm]	IMEI	DUT Type
A3401,	315.0 x 225.0 x 15.0		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 5GHz	WLAN, 10544-AAC	, 155	4.63	5.21	34.6

## Hardware Setup

Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V8.0 (20deg probe	HBBL-600-10000 DAK 3.5 Head ELI 21.11 deg.C 2024-	EX3DV4 - SN7805,	DAE4ip Sn1785,
tilt) - 2202	Oct -02 SYS5 B5.prn, 2024-Oct-02	2024-02-14	2024-02-13

### Scans Setup

	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	1.4	1.4
Graded Grid	n/a	Yes	Yes
Grading Ratio	n/a	1.4	1.4
MAIA	Y	N/A	N/A
Surface Detection	VMS + 6p	VMS + 6p	VMS + 6p
Scan Method	Measured	Measured	Measured

	Area Scan	Zoom Scan	Zoom Scan
Date	2024-10-02, 20:19	2024-10-02, 20:27	2024-10-02, 20:35
psSAR1g [W/Kg]	0.682	0.701	0.498
psSAR10g [W/Kg]	0.248	0.244	0.156
Power Drift [dB]	0.12	0.16	-0.10
Power Scaling	Disabled	Disabled	Disabled
Scaling Factor [dB]			
TSL Correction	Positive only	Positive only	Positive only
M2/M1 [%]		57.9	55.4
Dist 3dB Peak [mm]		8.7	7.6





Figure C.37: SAR testing results for the A3401 at 5775 MHz Core 0 & Core 1



## Measurement Report for A3401, BACK, U-NII-5, IEEE 802.11ax (160MHz, MCS0, 99pc duty cycle), Channel 15 (6025.0 MHz)

## Device Under Test Properties

Model, Manufacturer	Dimensions [mm]	IMEI	DUT Type
A3401,	315.0 x 225.0 x 15.0		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- 5	WLAN, 10755-AAC	, 15	5.61	5.40	33.1

## Hardware Setup

Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V8.0 (20deg probe	HBBL-600-10000 DAK 3.5 Head ELI 20.40 deg.C 2024-	EX3DV4 - SN7809,	DAE4ip Sn1789,
tilt) - 2203	Sep-30 SYS6 B6.prn, 2024-Sep-30	2024-05-13	2024-05-03

#### Scans Setup

	Area Scan	Zoom Scan	Zoom Scan
Grid Extents [mm]	x 272.0	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	n/a	Yes	Yes
Grading Ratio	n/a	1.4	1.4
MAIA	Y	N/A	N/A
Surface Detection	VMS + 6p	VMS + 6p	VMS + 6p
Scan Method	Measured	Measured	Measured

	Area Scan	Zoom Scan	Zoom Scan
Date	2024-10-02, 03:29	2024-10-02, 03:40	2024-10-02, 03:50
psSAR1g [W/kg]	0.385	0.384	0.408
psSAR10g [W/kg]	0.146	0.127	0.150
psAPD (4.0cm2, sq) [W/m2]		2.89	3.35
Power Drift [dB]	0.01	-0.12	-0.12
Power Scaling	Disabled	Disabled	Disabled
Scaling Factor [dB]			
TSL Correction	Positive only	Positive only	Positive only
M2/M1 [%]		51.7	53.6
Dist 3dB Peak [mm]		7.5	8.3





Figure C.38: SAR testing results for the A3401 at 6025 MHz Core 0 & Core 1



## Measurement Report for A3401, BACK, U-NII-7, IEEE 802.11ax (80MHz, MCS0, 99pc duty cycle), Channel 151 (6705.0 MHz)

## Device Under Test Properties

Model, Manufacturer	Dimensions [mm]	IMEI	DUT Type
A3401,	315.0 x 225.0 x 15.0		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- 7	WLAN, 10731-AAC	6705.0, 151	5.61	6.17	31.9

## Hardware Setup

Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V8.0 (20deg probe	HBBL-600-10000 DAK 3.5 Head ELI 21.05 deg.C 2024-	EX3DV4 - SN7809,	DAE4ip Sn1789,
tilt) - 2203	Oct-02 SYS6 B6.prn, 2024-Oct-02	2024-05-13	2024-05-03

#### Scans Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	153.0 x 204.0	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

	Area Scan	Zoom Scan
Date	2024-10-03, 15:17	2024-10-03, 15:29
psSAR1g [W/Kg]	0.311	0.333
psSAR10g [W/Kg]	0.104	0.105
psAPD (4.0cm2, sq) [W/m2]		2.41
Power Drift [dB]	0.08	-0.02
Power Scaling	Disabled	Disabled
Scaling Factor [dB]		
TSL Correction	Positive only	Positive only
M2/M1 [%]		46.0
Dist 3dB Peak [mm]		8.2





Figure C.39: SAR testing results for the A3401 at 6705 MHz Core 0



## Measurement Report for A3401, BACK, U-NII-7, IEEE 802.11ax (40MHz, MCS0, 99pc duty cycle), Channel 123 (6565.0 MHz)

## Device Under Test Properties

Model, Manufacturer	Dimensions [mm]	IMEI	DUT Type
A3401,	315.0 x 225.0 x 15.0		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- 7	WLAN, 10707-AAC	6565.0, 123	5.61	6.00	32.1

## Hardware Setup

Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V8.0 (20deg probe	HBBL-600-10000 DAK 3.5 Head ELI 21.05 deg.C 2024-	EX3DV4 - SN7809,	DAE4ip Sn1789,
tilt) - 2203	Oct-02 SYS6 B6.prn, 2024-Oct-02	2024-05-13	2024-05-03

#### Scans Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	153.0 x 204.0	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

	Area Scan	Zoom Scan
Date	2024-10-03, 17:46	2024-10-03, 17:57
psSAR1g [W/Kg]	0.301	0.294
psSAR10g [W/Kg]	0.113	0.110
psAPD (4.0cm2, sq) [W/m2]		2.48
Power Drift [dB]	0.05	-0.25
Power Scaling	Disabled	Disabled
Scaling Factor [dB]		
TSL Correction	Positive only	Positive only
M2/M1 [%]		49.4
Dist 3dB Peak [mm]		10.9





Figure C.40: SAR testing results for the A3401 at 6565 MHz Core 1



## Measurement Report for A3401, BACK, U-NII-5, IEEE 802.11ax (160MHz, MCS0, 99pc duty cycle), Channel 47 (6185.0 MHz)

## Device Under Test Properties

Model, Manufacturer	Dimensions [mm]	IMEI	DUT Type
A3401,	315.0 x 225.0 x 15.0		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- 5	WLAN, 10755-AAC	, 47	5.61	5.60	32.8

## Hardware Setup

Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V8.0 (20deg probe	HBBL-600-10000 DAK 3.5 Head ELI 20.40 deg.C 2024-	EX3DV4 - SN7809,	DAE4ip Sn1789,
tilt) - 2203	Sep-30 SYS6 B6.prn, 2024-Sep-30	2024-05-13	2024-05-03

#### Scans Setup

	Area Scan	Zoom Scan	Zoom Scan
Grid Extents [mm]	x 272.0	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	n/a	Yes	Yes
Grading Ratio	n/a	1.4	1.4
MAIA	Y	N/A	Y
Surface Detection	VMS + 6p	VMS + 6p	VMS + 6p
Scan Method	Measured	Measured	Measured

	Area Scan	Zoom Scan	Zoom Scan
Date	2024-10-02, 04:05	2024-10-02, 04:16	2024-10-02, 04:30
psSAR1g [W/kg]	0.395	0.424	0.392
psSAR10g [W/kg]	0.147	0.140	0.149
psAPD (4.0cm2, sq) [W/m2]		3.18	3.33
Power Drift [dB]	0.24	0.26	0.14
Power Scaling	Disabled	Disabled	Disabled
Scaling Factor [dB]			
TSL Correction	Positive only	Positive only	Positive only
M2/M1 [%]		50.4	53.0
Dist 3dB Peak [mm]		7.8	8.5





Figure C.41: SAR testing results for the A3401 at 6185 MHz Core 0 & Core 1



## Measurement Report for A3401, BACK, U-NII-5, IEEE 802.11ax (160MHz, MCS0, 99pc duty cycle), Channel 47 (6185.0 MHz)

## Device Under Test Properties

Model, Manufacturer	Dimensions [mm]	IMEI	DUT Type
A3401,	316.0 x 226.0 x 15.0		Laptop

#### **Exposure Conditions**

Phantom Section	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor
5G	BACK, 2.00	U-NII- 5	WLAN, 10755- AAC	6185.0, 47	1.0

#### Hardware Setup

Phantom	Medium	Probe, Calibration Date	DAE, Calibration Date
mmWave - 1112	Air -	EUmmWV4 - SN9507_F1-55GHz, 2024-09-06	DAE4ip Sn1786, 2024-08-07

## Scans Setup

Scan Type	5G Scan
Grid Extents [mm]	55.0 x 125.0
Grid Steps [lambda]	0.04211272847496038 x 0.04211272847496038
Sensor Surface [mm]	2.0
MAIA	Y

Scan Type	5G Scan
Date	2024-10-07, 18:07
Avg. Area [cm <sup>2</sup> ]	4.00
psPDn+ [W/m²]	2.41
psPDtot+ [W/m <sup>2</sup> ]	5.40
psPDmod+ [W/m²]	6.79
E <sub>max</sub> [V/m]	65.9
Power Drift [dB]	-0.10



RMS{EM E	E(x,y,z,f0)}	[dB(65.9V/m)]		
		2		
			, <b>n</b>	
-20	<b>\$</b> ->			

Figure C.42: SAR testing results for the A3401 at 6185 MHz Core 0 & Core 1



ANNEX D

## THREAD TECHNOLOGY DUTY FACTOR CORRECTION



## A3401 Thread Scaling Rationale

The measured SAR Results for the Thread technology, as detailed in this document, are scaled down to 60.94% to adjust for the normal operating conditions of this technology as shown in figure 13. 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 12.



Figure 12 - Thread ePA - Frequency of 2405 MHz (100% Duty Cycle)



Figure 13 - Thread ePA - Frequency of 2405 MHz (60.94% Duty Cycle)