

Appendix B

LTE Cat M1 Band 13
LTE Cat M1 Band 25
LTE Cat M1 Band 26
LTE Cat M1 Band 66
LTE Cat M1 Band 85
NB-IOT Band 5
NB-IOT Band 13
NB-IOT Band 25
NB-IOT Band 66
NB-IOT Band 71
NB-IOT Band 85

Test Laboratory: TOWE Lab

Measurement Report for JPD-FR409, BACK, Band 13, LTE-FDD (SC-FDMA, 1 RB, 10 MHz, QPSK) RBPosition:Low AntennaCfg:SISO, Channel 23230 (782.000 MHz)

Device Under Test Properties

Model	Dimensions [mm]
JPD-FR409	40.0 x 160.0 x 60.0

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, Head Simulating Liquid	BACK, 0.00	Band 13	LTE-FDD, 10175-CAH	782.000, 23230	9.65	0.912	41.5

Hardware Setup

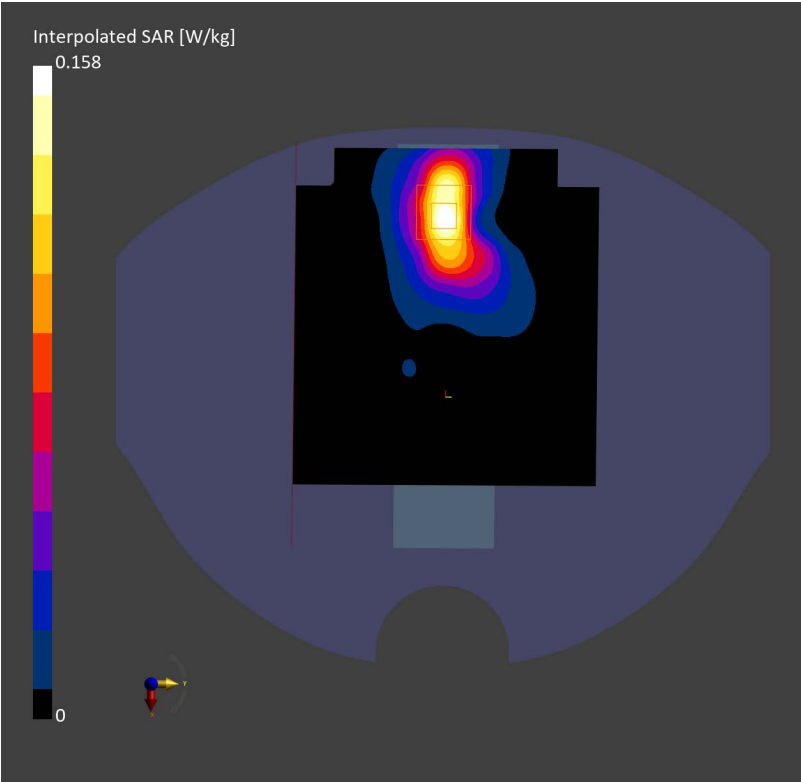
Phantom	TSL	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V8.0 (30deg probe tilt) – 2168	HSL750	EX3DV4 – SN7812, 2024-06-25	DAE4ip Sn1846, 2024-12-10

Scans Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	140.0 x 100.0	32.0 x 32.0 x 30.0
Grid Steps [mm]	15.0 x 15.0	8.0 x 8.0 x 5.0
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	All points	VMS + 6p
Scan Method	Measured	Measured

Measurement Results

	Area Scan	Zoom Scan
Date	2025-06-01, 19:18	2025-06-01, 19:22
psSAR1g [W/Kg]	0.128	0.132
psSAR10g [W/Kg]	0.075	0.076
Power Drift [dB]	0.06	-0.01
Power Scaling	Disabled	Disabled
Scaling Factor [dB]		
TSL Correction	No correction	No correction
M2/M1 [%]		57.8
Dist 3dB Peak [mm]		9.6



Test Laboratory: TOWE Lab

Measurement Report for JPD-FR409, EDGE LEFT, Band 25, LTE-FDD (SC-FDMA, 1 RB, 20 MHz, QPSK) RBPosition:Low AntennaCfg:SISO, Channel 26140 (1860.000 MHz)

Device Under Test Properties

Model	Dimensions [mm]
JPD-FR409	160.0 x 40.0 x 60.0

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, Head Simulating Liquid	EDGE LEFT, 0.00	Band 25	LTE-FDD, 10169-CAF	1860.000, 26140	7.76	1.41	39.7

Hardware Setup

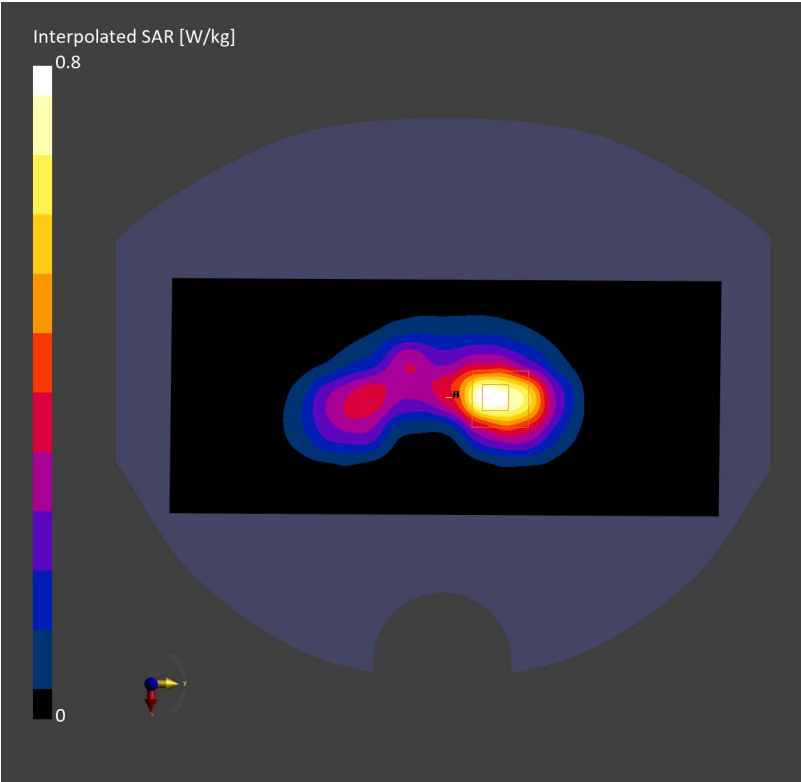
Phantom	TSL	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V8.0 (30deg probe tilt) - 2168	HSL1900	EX3DV4 - SN7812, 2024-06-25	DAE4ip Sn1846, 2024-12-10

Scans Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	90.0 x 210.0	32.0 x 32.0 x 30.0
Grid Steps [mm]	15.0 x 15.0	8.0 x 8.0 x 5.0
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	All points	All points
Scan Method	Measured	Measured

Measurement Results

	Area Scan	Zoom Scan
Date	2025-06-04, 17:18	2025-06-04, 17:23
psSAR1g [W/Kg]	0.648	0.709
psSAR10g [W/Kg]	0.344	0.373
Power Drift [dB]	0.06	-0.00
Power Scaling	Disabled	Disabled
Scaling Factor [dB]		
TSL Correction	No correction	No correction
M2/M1 [%]		56.0
Dist 3dB Peak [mm]		10.8



Test Laboratory: TOWE Lab

Measurement Report for JPD-FR409, BACK, Band 26, LTE-FDD (SC-FDMA, 1 RB, 15 MHz, QPSK) RBPosition:Low AntennaCfg:SISO, Channel 26865 (831.500 MHz)

Device Under Test Properties

Model	Dimensions [mm]
JPD-FR409	40.0 x 160.0 x 60.0

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, Head Simulating Liquid	BACK, 0.00	Band 26	LTE-FDD, 10181-CAF	831.500, 26865	9.35	0.918	41.9

Hardware Setup

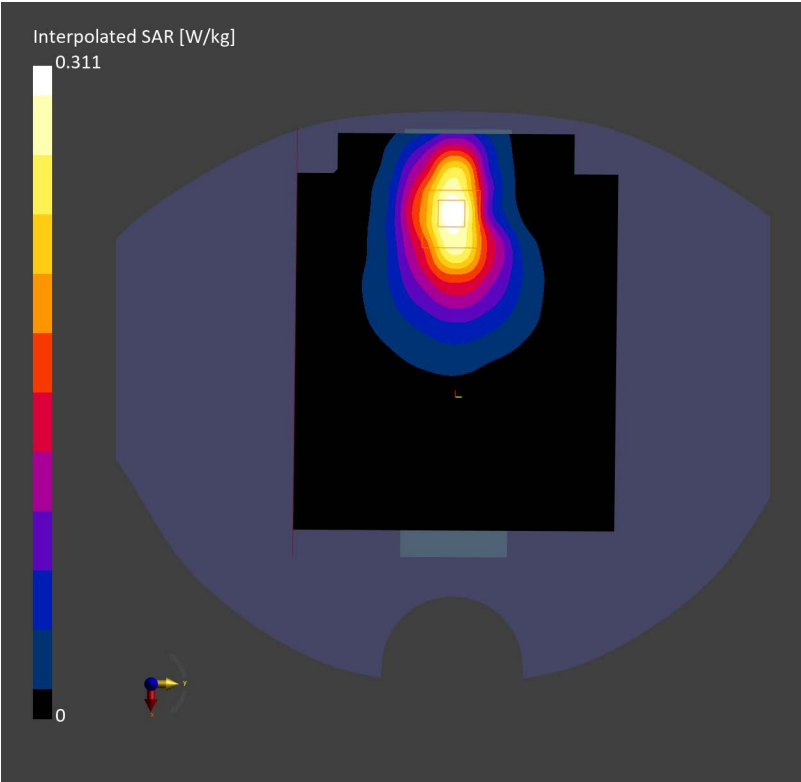
Phantom	TSL	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V8.0 (30deg probe tilt) - 2168	HSL835	EX3DV4 - SN7812, 2024-06-25	DAE4ip Sn1846, 2024-12-10

Scans Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	160.0 x 100.0	32.0 x 32.0 x 30.0
Grid Steps [mm]	15.0 x 15.0	8.0 x 8.0 x 5.0
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

Measurement Results

	Area Scan	Zoom Scan
Date	2025-06-02, 10:19	2025-06-02, 10:22
psSAR1g [W/Kg]	0.261	0.270
psSAR10g [W/Kg]	0.161	0.164
Power Drift [dB]	0.10	-0.06
Power Scaling	Disabled	Disabled
Scaling Factor [dB]		
TSL Correction	No correction	No correction
M2/M1 [%]		61.3
Dist 3dB Peak [mm]		11.2



Test Laboratory: TOWE Lab

Measurement Report for JPD-FR409, EDGE LEFT, Band 66, LTE-FDD (SC-FDMA, 1 RB, 20 MHz, QPSK) RBPosition:Low AntennaCfg:SISO, Channel 132072 (1720.000 MHz)

Device Under Test Properties

Model	Dimensions [mm]
JPD-FR409	160.0 x 40.0 x 60.0

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, Head Simulating Liquid	EDGE LEFT, 0.00	Band 66	LTE-FDD, 10169-CAF	1720.000, 132072	8.11	1.35	39.6

Hardware Setup

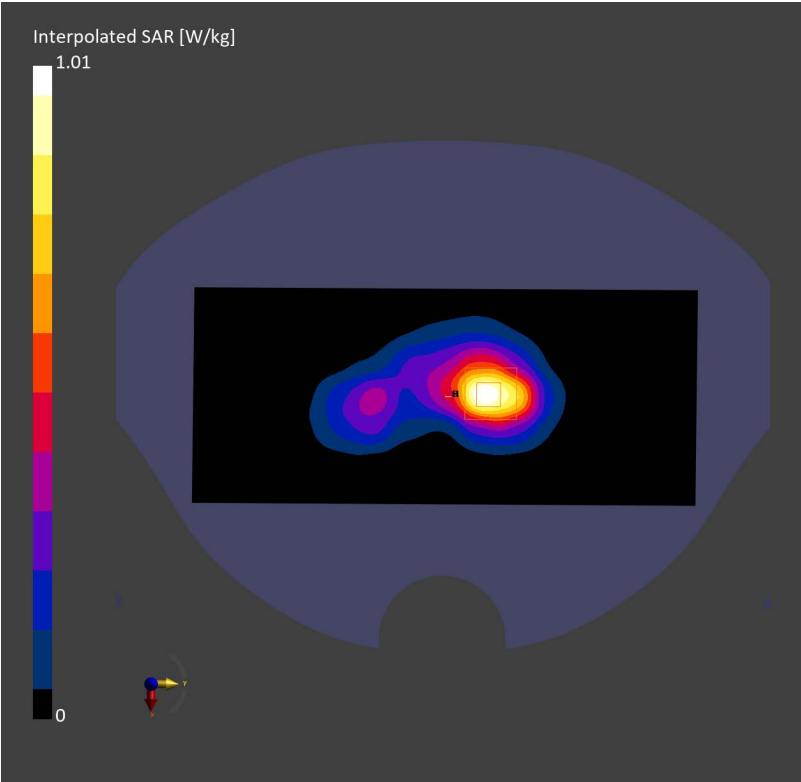
Phantom	TSL	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V8.0 (30deg probe tilt) – 2168	HSL1750	EX3DV4 – SN7812, 2024-06-25	DAE4ip Sn1846, 2024-12-10

Scans Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	90.0 x 210.0	32.0 x 32.0 x 30.0
Grid Steps [mm]	15.0 x 15.0	8.0 x 8.0 x 5.0
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	All points	All points
Scan Method	Measured	Measured

Measurement Results

	Area Scan	Zoom Scan
Date	2025-06-03, 16:20	2025-06-03, 16:25
psSAR1g [W/Kg]	0.818	0.857
psSAR10g [W/Kg]	0.439	0.463
Power Drift [dB]	0.00	0.00
Power Scaling	Disabled	Disabled
Scaling Factor [dB]		
TSL Correction	No correction	No correction
M2/M1 [%]		60.3
Dist 3dB Peak [mm]		12.5



Test Laboratory: TOWE Lab

Measurement Report for JPD-FR409, EDGE LEFT, Band 85, LTE-FDD (SC-FDMA, 1 RB, 10 MHz, QPSK) RBPosition:Low AntennaCfg:SISO, Channel 134092 (707.000 MHz)

Device Under Test Properties

Model	Dimensions [mm]
JPD-FR409	160.0 x 40.0 x 60.0

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, Head Simulating Liquid	EDGE LEFT, 0.00	Band 85	LTE-FDD, 10175-CAH	707.000, 134092	9.65	0.905	41.8

Hardware Setup

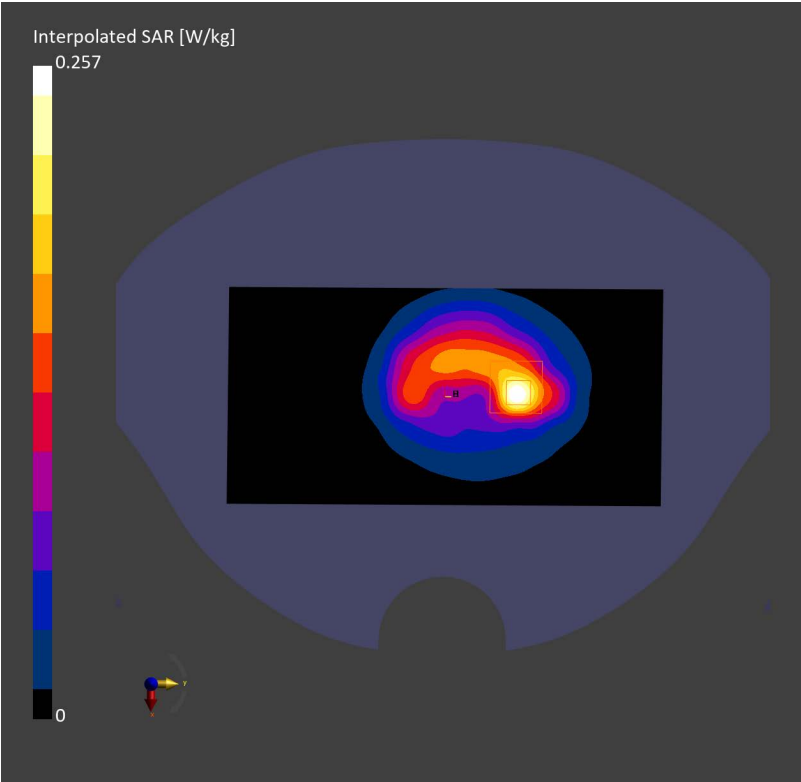
Phantom	TSL	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V8.0 (30deg probe tilt) – 2168	HSL750	EX3DV4 – SN7812, 2024-06-25	DAE4ip Sn1846, 2024-12-10

Scans Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	80.0 x 160.0	32.0 x 32.0 x 30.0
Grid Steps [mm]	15.0 x 15.0	8.0 x 8.0 x 5.0
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	All points	All points
Scan Method	Measured	Measured

Measurement Results

	Area Scan	Zoom Scan
Date	2025-06-01, 09:30	2025-06-01, 09:35
psSAR1g [W/Kg]	0.202	0.229
psSAR10g [W/Kg]	0.116	0.108
Power Drift [dB]	0.01	-0.01
Power Scaling	Disabled	Disabled
Scaling Factor [dB]		
TSL Correction	No correction	No correction
M2/M1 [%]		39.0
Dist 3dB Peak [mm]		10.3



Test Laboratory: TOWE Lab

Measurement Report for JPD-FR409, BACK, Band 5, LTE-FDD (SC-FDMA, 1 RB, 10 MHz, QPSK) RBPosition:Low AntennaCfg:SISO, Channel 20525 (836.500 MHz)

Device Under Test Properties

Model	Dimensions [mm]
JPD-FR409	40.0 x 160.0 x 60.0

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, Head Simulating Liquid	BACK, 0.00	Band 5	LTE-FDD, 10175-CAH	836.500, 20525	9.35	0.921	41.9

Hardware Setup

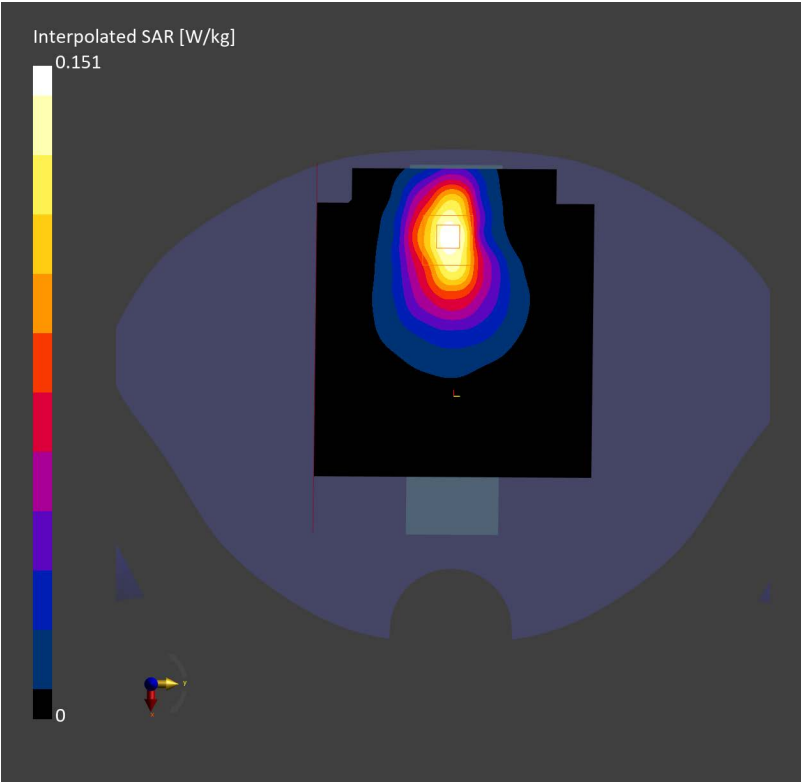
Phantom	TSL	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V8.0 (30deg probe tilt) - 2168	HSL835	EX3DV4 - SN7812, 2024-06-25	DAE4ip Sn1846, 2024-12-10

Scans Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	140.0 x 100.0	32.0 x 32.0 x 30.0
Grid Steps [mm]	15.0 x 15.0	8.0 x 8.0 x 5.0
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	All points	VMS + 6p
Scan Method	Measured	Measured

Measurement Results

	Area Scan	Zoom Scan
Date	2025-06-02, 14:22	2025-06-02, 14:26
psSAR1g [W/Kg]	0.128	0.136
psSAR10g [W/Kg]	0.079	0.083
Power Drift [dB]	0.05	-0.04
Power Scaling	Disabled	Disabled
Scaling Factor [dB]		
TSL Correction	No correction	No correction
M2/M1 [%]		58.7
Dist 3dB Peak [mm]		9.6



Test Laboratory: TOWE Lab

Measurement Report for JPD-FR409, BACK, Band 13, LTE-FDD (SC-FDMA, 1 RB, 10 MHz, QPSK) RBPosition:Low AntennaCfg:SISO, Channel 23230 (782.000 MHz)

Device Under Test Properties

Model	Dimensions [mm]
JPD-FR409	40.0 x 160.0 x 60.0

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, Head Simulating Liquid	BACK, 0.00	Band 13	LTE-FDD, 10175-CAH	782.000, 23230	9.65	0.912	41.5

Hardware Setup

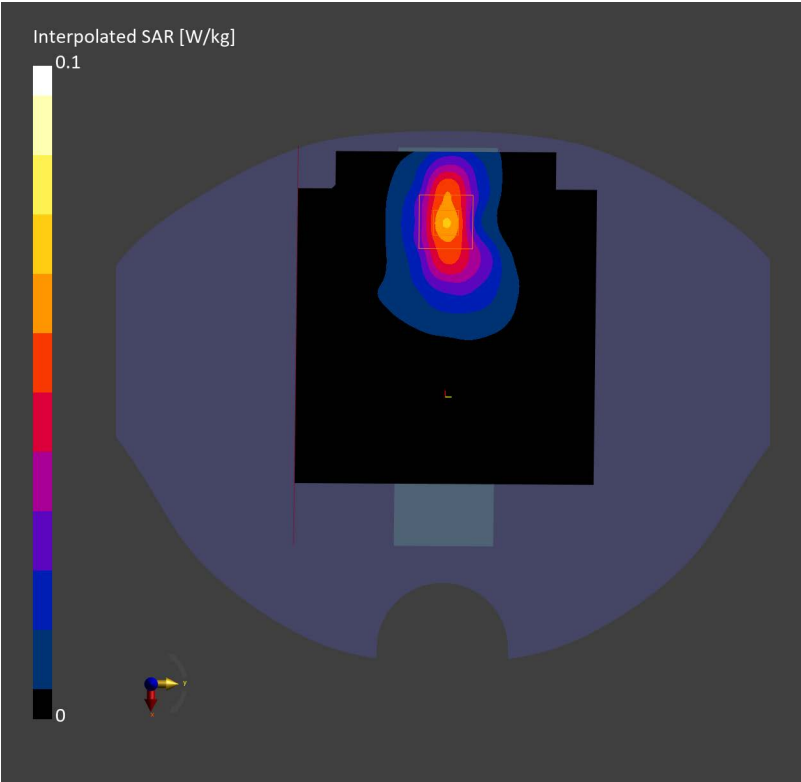
Phantom	TSL	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V8.0 (30deg probe tilt) – 2168	HSL750	EX3DV4 – SN7812, 2024-06-25	DAE4ip Sn1846, 2024-12-10

Scans Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	140.0 x 100.0	32.0 x 32.0 x 30.0
Grid Steps [mm]	15.0 x 15.0	8.0 x 8.0 x 5.0
Sensor Surface [mm]	3.0	1.4
Graded Grid	N/A	Yes
Grading Ratio	N/A	1.5
MAIA	Y	Y
Surface Detection	All points	VMS + 6p
Scan Method	Measured	Measured

Measurement Results

	Area Scan	Zoom Scan
Date	2025-06-01, 15:05	2025-06-01, 15:08
psSAR1g [W/Kg]	0.055	0.059
psSAR10g [W/Kg]	0.033	0.035
Power Drift [dB]	0.02	0.03
Power Scaling	Disabled	Disabled
Scaling Factor [dB]		
TSL Correction	No correction	No correction
M2/M1 [%]		54.8
Dist 3dB Peak [mm]		9.6



Test Laboratory: TOWE Lab

Measurement Report for JPD-FR409, EDGE LEFT, Band 25, LTE-FDD (SC-FDMA, 1 RB, 20 MHz, QPSK) RBPosition:Low AntennaCfg:SISO, Channel 26365 (1882.500 MHz)

Device Under Test Properties

Model	Dimensions [mm]
JPD-FR409	160.0 x 40.0 x 60.0

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, Head Simulating Liquid	EDGE LEFT, 0.00	Band 25	LTE-FDD, 10169-CAF	1882.500, 26365	7.76	1.41	39.7

Hardware Setup

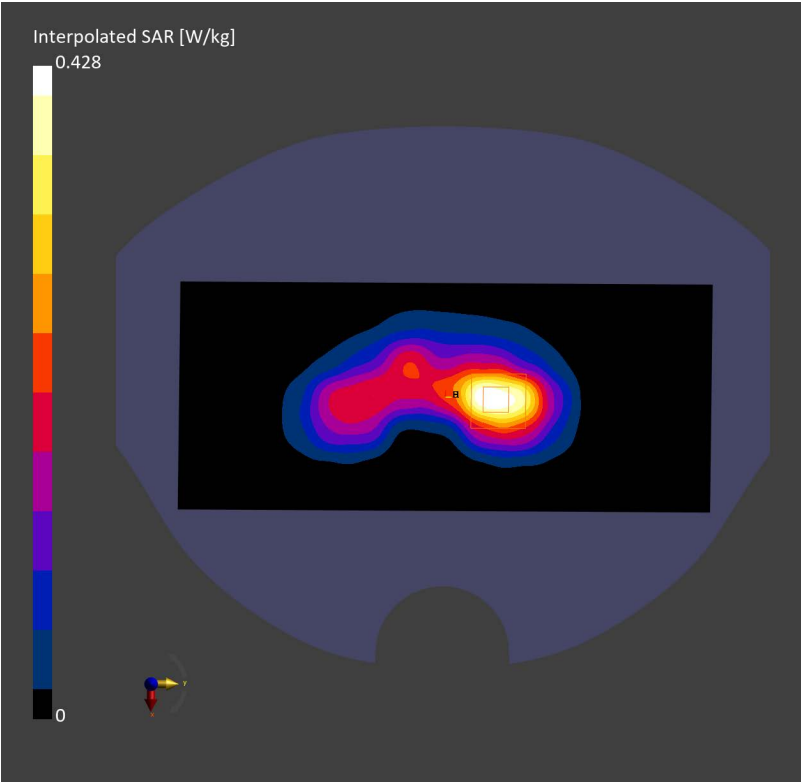
Phantom	TSL	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V8.0 (30deg probe tilt) - 2168	HSL1900	EX3DV4 - SN7812, 2024-06-25	DAE4ip Sn1846, 2024-12-10

Scans Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	90.0 x 210.0	32.0 x 32.0 x 30.0
Grid Steps [mm]	15.0 x 15.0	8.0 x 8.0 x 5.0
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

Measurement Results

	Area Scan	Zoom Scan
Date	2025-06-04, 14:15	2025-06-04, 14:19
psSAR1g [W/Kg]	0.353	0.391
psSAR10g [W/Kg]	0.190	0.207
Power Drift [dB]	-0.03	-0.00
Power Scaling	Disabled	Disabled
Scaling Factor [dB]		
TSL Correction	No correction	No correction
M2/M1 [%]		52.4
Dist 3dB Peak [mm]		10.8



Test Laboratory: TOWE Lab

Measurement Report for JPD-FR409, EDGE LEFT, Band 66, LTE-FDD (SC-FDMA, 1 RB, 20 MHz, QPSK) RBPosition:Low AntennaCfg:SISO, Channel 132322 (1745.000 MHz)

Device Under Test Properties

Model	Dimensions [mm]
JPD-FR409	160.0 x 40.0 x 60.0

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, Head Simulating Liquid	EDGE LEFT, 0.00	Band 66	LTE-FDD, 10169-CAF	1745.000, 132322	8.11	1.36	39.6

Hardware Setup

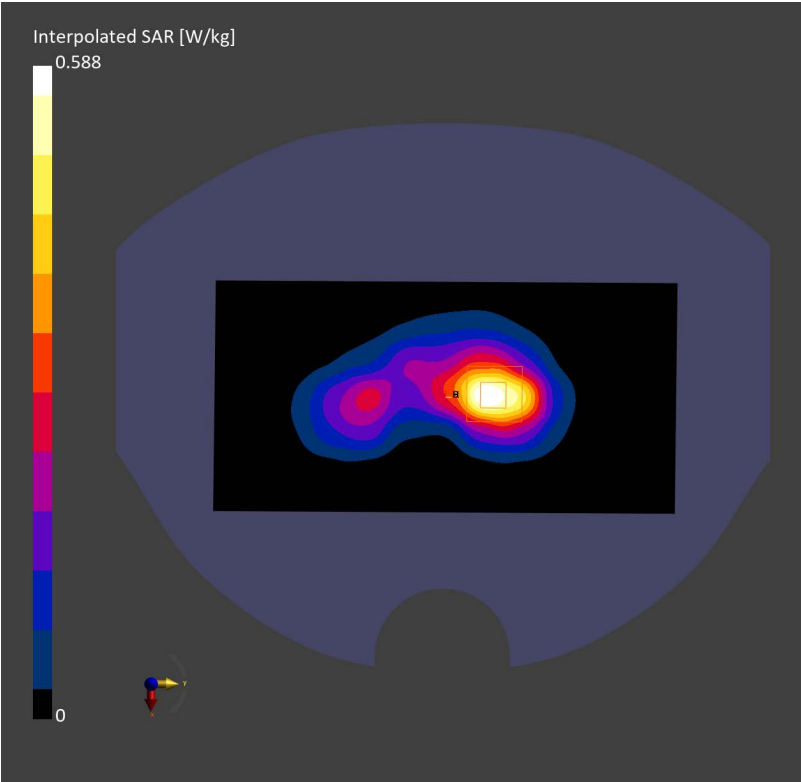
Phantom	TSL	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V8.0 (30deg probe tilt) - 2168	HSL1750	EX3DV4 - SN7812, 2024-06-25	DAE4ip Sn1846, 2024-12-10

Scans Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	80.0 x 160.0	32.0 x 32.0 x 30.0
Grid Steps [mm]	15.0 x 15.0	8.0 x 8.0 x 5.0
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

Measurement Results

	Area Scan	Zoom Scan
Date	2025-06-03, 13:56	2025-06-03, 13:59
psSAR1g [W/Kg]	0.479	0.523
psSAR10g [W/Kg]	0.259	0.286
Power Drift [dB]	0.01	-0.03
Power Scaling	Disabled	Disabled
Scaling Factor [dB]		
TSL Correction	No correction	No correction
M2/M1 [%]		64.3
Dist 3dB Peak [mm]		11.2



Test Laboratory: TOWE Lab

Measurement Report for JPD-FR409, EDGE LEFT, Band 71, LTE-FDD (SC-FDMA, 1 RB, 10 MHz, QPSK) RBPosition:Low AntennaCfg:SISO,
Channel 133172 (668.000 MHz)

Device Under Test Properties

Model	Dimensions [mm]
JPD-FR409	160.0 x 40.0 x 60.0

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, Head Simulating Liquid	EDGE LEFT, 0.00	Band 71	LTE-FDD, 10175-CAH	668.000, 133172	9.65	0.894	42.0

Hardware Setup

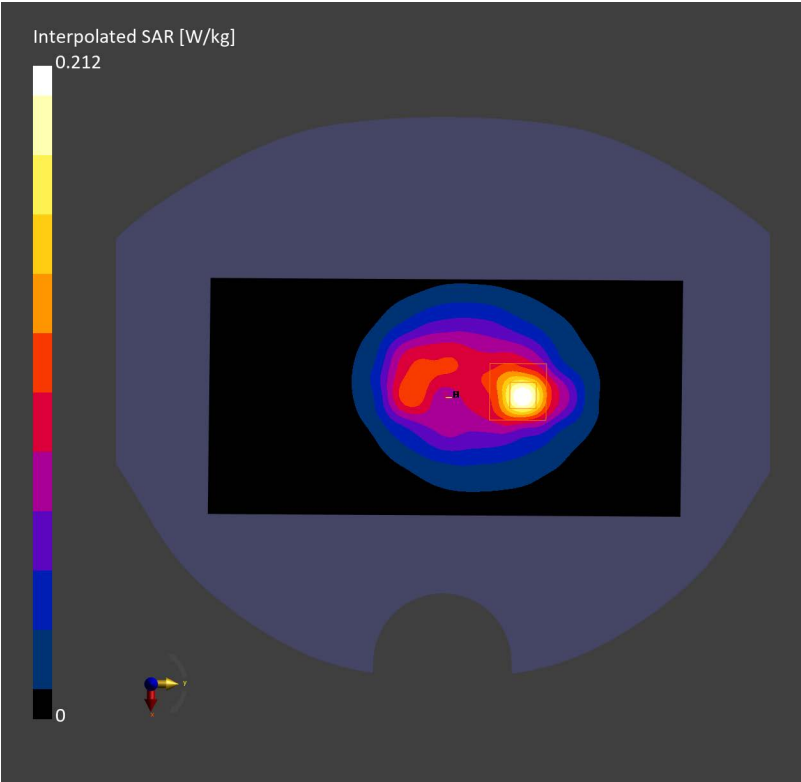
Phantom	TSL	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V8.0 (30deg probe tilt) – 2168	HSL750	EX3DV4 – SN7812, 2024-06-25	DAE4ip Sn1846, 2024-12-10

Scans Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	80.0 x 160.0	32.0 x 32.0 x 30.0
Grid Steps [mm]	15.0 x 15.0	8.0 x 8.0 x 5.0
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

Measurement Results

	Area Scan	Zoom Scan
Date	2025-06-01, 22:21	2025-06-01, 22:24
psSAR1g [W/Kg]	0.166	0.178
psSAR10g [W/Kg]	0.092	0.084
Power Drift [dB]	-0.12	-0.01
Power Scaling	Disabled	Disabled
Scaling Factor [dB]		
TSL Correction	No correction	No correction
M2/M1 [%]		39.5
Dist 3dB Peak [mm]		9.4



Test Laboratory: TOWE Lab

Measurement Report for JPD-FR409, EDGE LEFT, Band 85, LTE-FDD (SC-FDMA, 1 RB, 10 MHz, QPSK) RBPosition:Low AntennaCfg:SISO, Channel 134092 (707.000 MHz)

Device Under Test Properties

Model	Dimensions [mm]
JPD-FR409	160.0 x 40.0 x 60.0

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, Head Simulating Liquid	EDGE LEFT, 0.00	Band 85	LTE-FDD, 10175-CAH	707.000, 134092	9.65	0.905	41.8

Hardware Setup

Phantom	TSL	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V8.0 (30deg probe tilt) – 2168	HSL750	EX3DV4 – SN7812, 2024-06-25	DAE4ip Sn1846, 2024-12-10

Scans Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	80.0 x 160.0	32.0 x 32.0 x 30.0
Grid Steps [mm]	15.0 x 15.0	8.0 x 8.0 x 5.0
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

Measurement Results

	Area Scan	Zoom Scan
Date	2025-06-01, 12:11	2025-06-01, 12:14
psSAR1g [W/Kg]	0.080	0.091
psSAR10g [W/Kg]	0.046	0.043
Power Drift [dB]	-0.03	0.03
Power Scaling	Disabled	Disabled
Scaling Factor [dB]		
TSL Correction	No correction	No correction
M2/M1 [%]		43.4
Dist 3dB Peak [mm]		10.3

