

Appendix I: Supplemental 25mm SAR Test Results

SAR testing was performed on each Cellular Technology: GSM, W-CDMA, LTE, and FR1. Tests required were determined by the greatest delta between Index 4 Power and Index 1 (Pmax). If there was no delta between Index 4 and Index 1 (Pmax), then testing was deemed unnecessary since the 10mm results are more conservative.

Technology	Band	Antenna	RF Exposure Condition	Mode	Power Mode(s)	Dist (mm)	Test Position	Channel	Freq. (MHz)	RB Allocation	RB Offset	Max Output Pwr (dBm)	Meas. (dBm)	1-g Meas. (W/kg)	1-g Scaled (W/kg)	Plot No.
GSM	850	ANT 0	Body & Hotspot	GPRS 2 Slots	Index 1	25	Back	190	836.6	N/A	N/A	32.3	31.7	0.245	0.281	2
W-CDMA	II	ANT 0	Body & Hotspot	DFT-s OFDM $\pi/2$ BPSK	Index 1	25	Back	9400	1880.00	N/A	N/A	25.5	24.8	0.435	0.511	3
NR	n25	ANT 0	Body & Hotspot	DFT-s OFDM $\pi/2$ BPSK	Index 1	25	Back	376500	1882.50	1	1	25.0	24.4	0.391	0.449	4
LTE	7	ANT 0	Hotspot	QPSK	Index 1	25	Edge Bottom	21100	2535.00	1	49	24.9	23.7	0.393	0.518	5
NR	n77 PC3 Block A	ANT 6	Body & Hotspot	DFT-s OFDM $\pi/2$ BPSK	Index 1	25	Back	633333	3500.00	1	1	25.0	23.6	0.213	0.294	6

GSM 850: GPRS-FDD (TDMA, GMSK, TN 0-1), BACK

Exposure Conditions

Band	GSM 850	TSL Permittivity	42.6
Frequency [MHz] Channel Number	836.600 190	TSL Conductivity [S/m]	0.898
Group UID	GSM 10024-DAC	Phantom Section TSL	Flat HSL
Conversion Factor	8.98	Test Distance [mm]	25.00

Hardware Setup

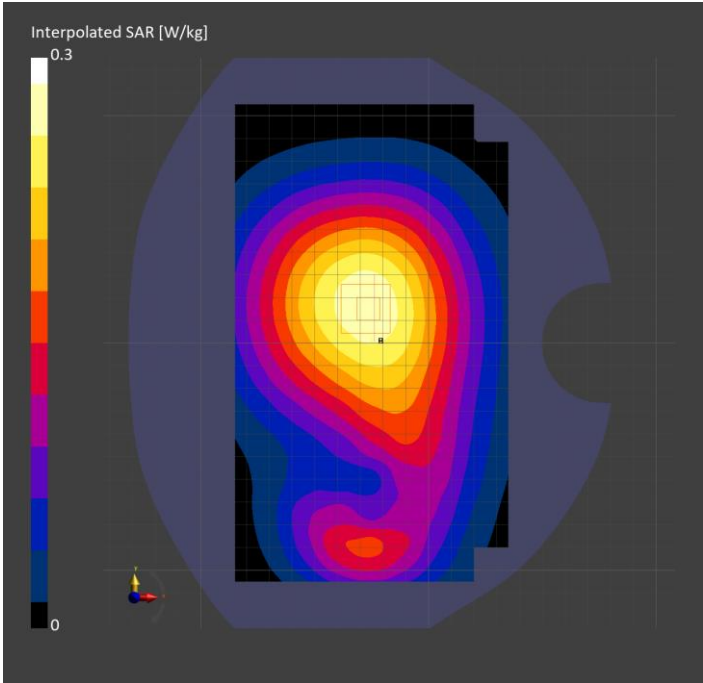
Probe Calibration Date	EX3DV4 - SN7656 2023-05-15	Phantom	Twin-SAM V8.0 (30deg probe tilt)
DAE Calibration Date	DAE4 Sn1357 2024-01-09	TSL Type	HBBL-600-10000
Software Version	16.2.4.2524		

Scan Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	120.0 x 210.0	30.0 x 30.0 x 30.0
Grid Steps [mm]	15.0 x 15.0	6.0 x 6.0 x 1.5
Sensor Surface [mm]	3.0	1.4
Graded Grid	N/A	Yes
M2/M1 [%]		93.9
Dist 3dB Peak [mm]		> 15.0
Peak SAR [W/kg] SAR Peak Location [mm]	N/A	0.301 [-23.7, 17.3, -207.0]

Measurement Results

	Area Scan	Zoom Scan
psSAR1g [W/Kg]	0.239	0.245
psSAR10g [W/Kg]	0.169	0.190
Power Drift [dB]	N/A	-0.05



Band 2: UMTS-FDD (WCDMA), BACK

Exposure Conditions

Band	Band 2	TSL Permittivity	41.8
Frequency [MHz] Channel Number	1880.000 9400	TSL Conductivity [S/m]	1.36
Group UID	WCDMA 10011-CAC	Phantom Section TSL	Flat HSL
Conversion Factor	7.55	Test Distance [mm]	25.00

Hardware Setup

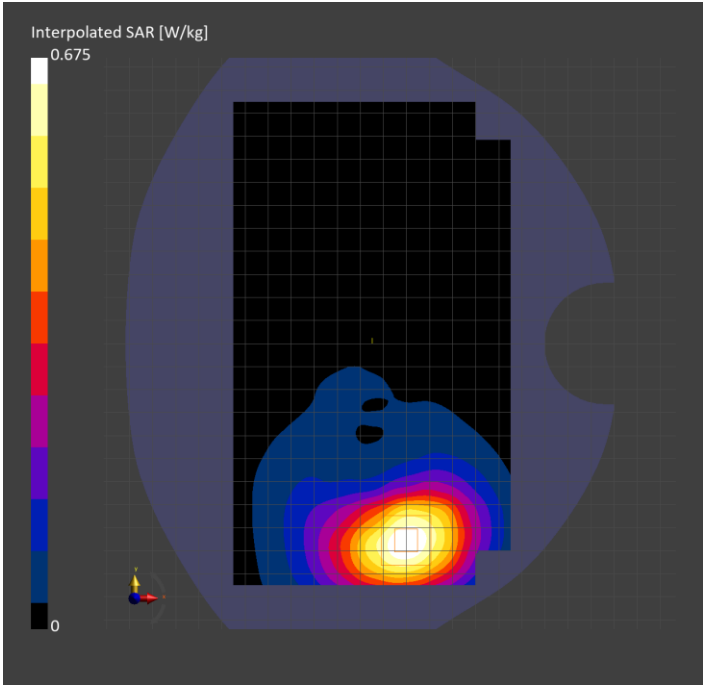
Probe Calibration Date	EX3DV4 - SN7448 2024-02-07	Phantom	Twin-SAM V8.0 (30deg probe tilt)
DAE Calibration Date	DAE4 Sn1433 2024-02-08	TSL Type	HBBL-600-10000
Software Version	16.2.4.2524		

Scan Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	120.0 x 210.0	30.0 x 30.0 x 30.0
Grid Steps [mm]	15.0 x 15.0	6.0 x 6.0 x 1.5
Sensor Surface [mm]	3.0	1.4
Graded Grid	N/A	Yes
M2/M1 [%]		87.2
Dist 3dB Peak [mm]		16.8
Peak SAR [W/kg] SAR Peak Location [mm]	N/A	0.675 [-10.1, -85.1, -207.0]

Measurement Results

	Area Scan	Zoom Scan
psSAR1g [W/Kg]	0.412	0.435
psSAR10g [W/Kg]	0.247	0.269
Power Drift [dB]	N/A	0.01



Band n25: 5G NR (DFT-s-OFDM, 1 RB, 40 MHz, QPSK, 15 kHz) RBPosition:Low

AntennaCfg:SISO, BACK

Exposure Conditions

Band	Band n25	TSL Permittivity	40.4
Frequency [MHz] Channel Number	1882.500 376500	TSL Conductivity [S/m]	1.39
Group UID	5G NR FR1 FDD 10934-AAC	Phantom Section TSL	Flat HSL
Conversion Factor	7.06	Test Distance [mm]	25.00

Hardware Setup

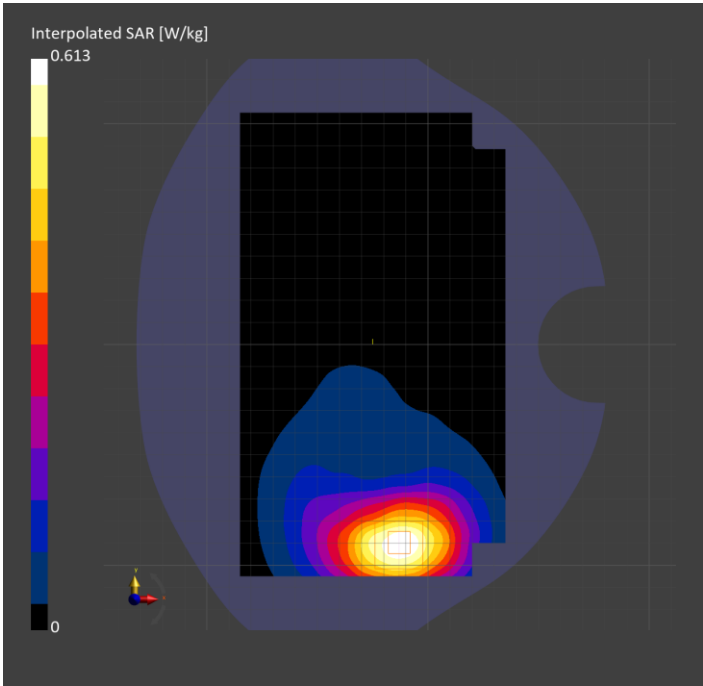
Probe Calibration Date	EX3DV4 - SN3686 2024-01-12	Phantom	Twin-SAM V8.0 (30deg probe tilt)
DAE Calibration Date	DAE4 Sn1258 2024-03-12	TSL Type	HBBL-600-10000
Software Version	16.2.4.2524		

Scan Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	120.0 x 210.0	30.0 x 30.0 x 30.0
Grid Steps [mm]	15.0 x 15.0	6.0 x 6.0 x 1.5
Sensor Surface [mm]	3.0	1.4
Graded Grid	N/A	Yes
M2/M1 [%]		86.7
Dist 3dB Peak [mm]		17.4
Peak SAR [W/kg] SAR Peak Location [mm]	N/A	0.613 [-13.1, -89.4, -207.0]

Measurement Results

	Area Scan	Zoom Scan
psSAR1g [W/Kg]	0.379	0.391
psSAR10g [W/Kg]	0.223	0.240
Power Drift [dB]	N/A	0.01



Band 7: LTE-FDD (SC-FDMA, 1 RB, 20 MHz, QPSK) RBPosition:Mid

AntennaCfg:SISO, EDGE BOTTOM

Exposure Conditions

Band	Band 7	TSL Permittivity	39.9
Frequency [MHz] Channel Number	2535.000 21100	TSL Conductivity [S/m]	1.82
Group UID	LTE-FDD 10169-CAF	Phantom Section TSL	Flat HSL
Conversion Factor	7.64	Test Distance [mm]	25.00

Hardware Setup

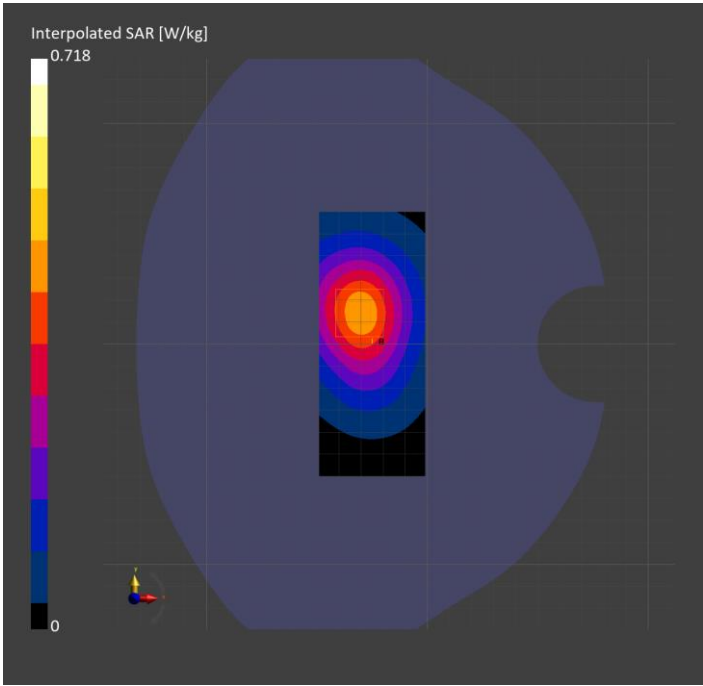
Probe Calibration Date	EX3DV4 - SN3885 2023-10-12	Phantom	Twin-SAM V8.0 (30deg probe tilt)
DAE Calibration Date	DAE4 Sn1787 2023-05-03	TSL Type	HBBL-600-10000
Software Version	16.2.4.2524		

Scan Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	48.0 x 120.0	30.0 x 30.0 x 30.0
Grid Steps [mm]	8.0 x 10.0	5.0 x 5.0 x 1.5
Sensor Surface [mm]	3.0	1.4
Graded Grid	N/A	Yes
M2/M1 [%]		81.1
Dist 3dB Peak [mm]		> 15.0
Peak SAR [W/kg] SAR Peak Location [mm]	N/A	0.717 [-30.3, 14.0, -207.0]

Measurement Results

	Area Scan	Zoom Scan
psSAR1g [W/Kg]	0.379	0.393
psSAR10g [W/Kg]	0.210	0.224
Power Drift [dB]	N/A	0.09



Band n77: 5G NR (DFT-s-OFDM, 1 RB, 100 MHz, QPSK, 30 kHz) RBPosition:Low

AntennaCfg:SISO, BACK

Exposure Conditions

Band	Band n77	TSL Permittivity	40.1
Frequency [MHz] Channel Number	3499.995 633333	TSL Conductivity [S/m]	2.66
Group UID	5G NR FR1 TDD 10866-AAF	Phantom Section TSL	Flat HSL
Conversion Factor	6.96	Test Distance [mm]	25.00

Hardware Setup

Probe Calibration Date	EX3DV4 - SN7657 2023-05-30	Phantom	Twin-SAM V8.0 (30deg probe tilt)
DAE Calibration Date	DAE4 Sn1545 2024-02-09	TSL Type	HBBL-600-10000
Software Version	16.2.4.2524		

Scan Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	120.0 x 200.0	28.0 x 28.0 x 28.0
Grid Steps [mm]	10.0 x 10.0	5.0 x 5.0 x 1.4
Sensor Surface [mm]	3.0	1.4
Graded Grid	N/A	Yes
M2/M1 [%]		79.8
Dist 3dB Peak [mm]		> 14.0
Peak SAR [W/kg] SAR Peak Location [mm]	N/A	0.438 [12.5, -53.0, -207.0]

Measurement Results

	Area Scan	Zoom Scan
psSAR1g [W/Kg]	0.209	0.213
psSAR10g [W/Kg]	0.109	0.112
Power Drift [dB]	N/A	-0.06

