

ANNEX I SAR Sensor Triggering Data Summary

	ANT0	ANT1	ANT3	ANT4	ANT5
front	17mm	17mm	22mm	20mm	20mm
back	21mm	23mm	24mm	24mm	24mm
bottom	20mm	20mm	\	\	\
top	\	\	25mm	22mm	22mm
left	\	14mm	20mm	\	\
right	\	\	\	\	\

Per FCC KDB Publication 616217 D04v01r02, this device was tested by the manufacturer to determine the proximity sensor triggering distances for the rear and bottom edge of the device. The measured output power within ± 5 mm of the triggering points (or until touching the phantom) is included for rear and each applicable edge.

To ensure all production units are compliant it is necessary to test SAR at a distance 1mm less than the smallest distance from the device and SAR phantom (determined from these triggering tests according to the KDB 616217 D04v01r02) with the device at maximum output power without power reduction. These SAR tests are included in addition to the SAR tests for the device touching the SAR phantom, with reduced power.

We tested the power and got the different proximity sensor triggering distances for front/rear/bottom edge for ANT0. The manufacturer has declared 17mm/21mm/20mm is the most conservative triggering distance for ANT0 with front/rear/bottom edge. So base on the most conservative triggering distance of 17mm/21mm/20mm, additional SAR measurements were required at 16mm/20mm/19mm from the highest SAR position between front/rear/bottom edge of ANT0.

We tested the power and got the different proximity sensor triggering distances for front/rear/bottom/left edge for ANT1. The manufacturer has declared 17mm/23mm/20mm/14mm is the most conservative triggering distance for ANT1 with front/rear/bottom/left edge. So base on the most conservative triggering distance of 17mm/23mm/20mm/14mm, additional SAR measurements were required at 16mm/22mm/19mm/13mm from the highest SAR position between front/rear/bottom/left edge of ANT1.

We tested the power and got the different proximity sensor triggering distances for front/rear/top/left edge for ANT3. The manufacturer has declared 22mm/24mm/25mm/20mm is the most conservative triggering distance for ANT3 with front/rear/top/left edge. So base on the most conservative triggering distance of 22mm/24mm/25mm/20mm, additional SAR measurements were required at 16mm/23mm/24mm/19mm from the highest SAR position between front/rear/top/left edge of ANT3.



conservative triggering distance of 22mm/24mm/25mm/20mm, additional SAR measurements were required at 21mm/23mm/24mm/19mm from the highest SAR position between front/rear/top/left edge of ANT3.

We tested the power and got the different proximity sensor triggering distances for front/rear/top edge for ANT4. The manufacturer has declared 20mm/24mm/22mm is the most conservative triggering distance for ANT4 with front/rear/top edge. So base on the most conservative triggering distance of 20mm/24mm/22mm, additional SAR measurements were required at 19mm/23mm/21mm from the highest SAR position between front/rear/top edge of ANT4.

We tested the power and got the different proximity sensor triggering distances for front/rear/top edge for ANT5. The manufacturer has declared 20mm/24mm/22mm is the most conservative triggering distance for ANT5 with front/rear/top edge. So base on the most conservative triggering distance of 20mm/24mm/22mm, additional SAR measurements were required at 19mm/23mm/21mm from the highest SAR position between front/rear/top edge of ANT5.

ANT0:
Front Edge

Moving device toward the phantom:

sensor near or far(KDB 616217 6.2.6)											
Distance [mm]	22	21	20	19	18	17	16	15	14	13	12
Main antenna	Far	Far	Far	Far	Far	Near	Near	Near	Near	Near	Near

Moving device away from the phantom:

sensor near or far(KDB 616217 6.2.6)											
Distance [mm]	12	13	14	15	16	17	18	19	20	21	22
Main antenna	Near	Near	Near	Near	Near	Near	Far	Far	Far	Far	Far

Rear Edge

Moving device toward the phantom:

sensor near or far(KDB 616217 6.2.6)											
Distance [mm]	26	25	24	23	22	21	20	19	18	17	16
Main antenna	Far	Far	Far	Far	Far	Near	Near	Near	Near	Near	Near

Moving device away from the phantom:

sensor near or far(KDB 616217 6.2.6)											
Distance [mm]	16	17	18	19	20	21	22	23	24	25	26
Main antenna	Near	Near	Near	Near	Near	Near	Far	Far	Far	Far	Far

Bottom Edge

Moving device toward the phantom:

sensor near or far(KDB 616217 6.2.6)											
Distance [mm]	25	24	23	22	21	20	19	18	17	16	15
Main antenna	Far	Far	Far	Far	Far	Near	Near	Near	Near	Near	Near

Moving device away from the phantom:

sensor near or far(KDB 616217 6.2.6)											
Distance [mm]	15	16	17	18	19	20	21	22	23	24	25
Main antenna	Near	Near	Near	Near	Near	Near	Far	Far	Far	Far	Far

ANT1:
Front Edge

Moving device toward the phantom:

sensor near or far(KDB 616217 6.2.6)											
Distance [mm]	22	21	20	19	18	17	16	15	14	13	12
Main antenna	Far	Far	Far	Far	Far	Near	Near	Near	Near	Near	Near

Moving device away from the phantom:

sensor near or far(KDB 616217 6.2.6)											
Distance [mm]	12	13	14	15	16	17	18	19	20	21	22
Main antenna	Near	Near	Near	Near	Near	Near	Far	Far	Far	Far	Far

Rear Edge

Moving device toward the phantom:

sensor near or far(KDB 616217 6.2.6)											
Distance [mm]	28	27	26	25	24	23	22	21	20	19	18
Main antenna	Far	Far	Far	Far	Far	Near	Near	Near	Near	Near	Near

Moving device away from the phantom:

sensor near or far(KDB 616217 6.2.6)											
Distance [mm]	18	19	20	21	22	23	24	25	26	27	28
Main antenna	Near	Near	Near	Near	Near	Near	Far	Far	Far	Far	Far

Bottom Edge

Moving device toward the phantom:

sensor near or far(KDB 616217 6.2.6)											
Distance [mm]	25	24	23	22	21	20	19	18	17	16	15
Main antenna	Far	Far	Far	Far	Far	Near	Near	Near	Near	Near	Near

Moving device away from the phantom:

sensor near or far(KDB 616217 6.2.6)											
Distance [mm]	15	16	17	18	19	20	21	22	23	24	25
Main antenna	Near	Near	Near	Near	Near	Near	Far	Far	Far	Far	Far

Left Edge

Moving device toward the phantom:

sensor near or far(KDB 616217 6.2.6)											
Distance [mm]	19	18	17	16	15	14	13	12	11	10	9
Main antenna	Far	Far	Far	Far	Far	Near	Near	Near	Near	Near	Near

Moving device away from the phantom:

sensor near or far(KDB 616217 6.2.6)											
Distance [mm]	9	10	11	12	13	14	22	23	24	25	26
Main antenna	Near	Near	Near	Near	Near	Near	Far	Far	Far	Far	Far

ANT3:

Front Edge

Moving device toward the phantom:

sensor near or far(KDB 616217 6.2.6)											
Distance [mm]	27	26	25	24	23	22	21	20	19	18	17
Main antenna	Far	Far	Far	Far	Far	Near	Near	Near	Near	Near	Near

Moving device away from the phantom:

sensor near or far(KDB 616217 6.2.6)											
Distance [mm]	17	18	19	20	21	22	23	24	25	26	27
Main antenna	Near	Near	Near	Near	Near	Near	Far	Far	Far	Far	Far

Rear Edge

Moving device toward the phantom:

sensor near or far(KDB 616217 6.2.6)											
Distance [mm]	29	28	27	26	25	24	23	22	21	20	19
Main antenna	Far	Far	Far	Far	Far	Near	Near	Near	Near	Near	Near

Moving device away from the phantom:

sensor near or far(KDB 616217 6.2.6)											
Distance [mm]	19	20	21	22	23	24	25	26	27	28	29
Main antenna	Near	Near	Near	Near	Near	Near	Far	Far	Far	Far	Far

Top Edge

Moving device toward the phantom:

sensor near or far(KDB 616217 6.2.6)											
Distance [mm]	30	29	28	27	26	25	24	23	22	21	20
Main antenna	Far	Far	Far	Far	Far	Near	Near	Near	Near	Near	Near

Moving device away from the phantom:

sensor near or far(KDB 616217 6.2.6)											
Distance [mm]	20	21	22	23	24	25	26	27	28	29	30
Main antenna	Near	Near	Near	Near	Near	Near	Far	Far	Far	Far	Far

Left Edge

Moving device toward the phantom:

sensor near or far(KDB 616217 6.2.6)											
Distance [mm]	25	24	23	22	21	20	19	18	17	16	15
Main antenna	Far	Far	Far	Far	Far	Near	Near	Near	Near	Near	Near

Moving device away from the phantom:

sensor near or far(KDB 616217 6.2.6)											
Distance [mm]	15	16	17	18	19	20	21	22	23	24	25
Main antenna	Near	Near	Near	Near	Near	Near	Far	Far	Far	Far	Far

ANT4/ANT5:
Front Edge

Moving device toward the phantom:

sensor near or far(KDB 616217 6.2.6)											
Distance [mm]	25	24	23	22	21	20	19	18	17	16	15
Main antenna	Far	Far	Far	Far	Far	Near	Near	Near	Near	Near	Near

Moving device away from the phantom:

sensor near or far(KDB 616217 6.2.6)											
Distance [mm]	15	16	17	18	19	20	21	22	23	24	25
Main antenna	Near	Near	Near	Near	Near	Near	Far	Far	Far	Far	Far

Rear Edge

Moving device toward the phantom:

sensor near or far(KDB 616217 6.2.6)											
Distance [mm]	29	28	27	26	25	24	23	22	21	20	19
Main antenna	Far	Far	Far	Far	Far	Near	Near	Near	Near	Near	Near

Moving device away from the phantom:

sensor near or far(KDB 616217 6.2.6)											
Distance [mm]	19	20	21	22	23	24	25	26	27	28	29
Main antenna	Near	Near	Near	Near	Near	Near	Far	Far	Far	Far	Far

Top Edge

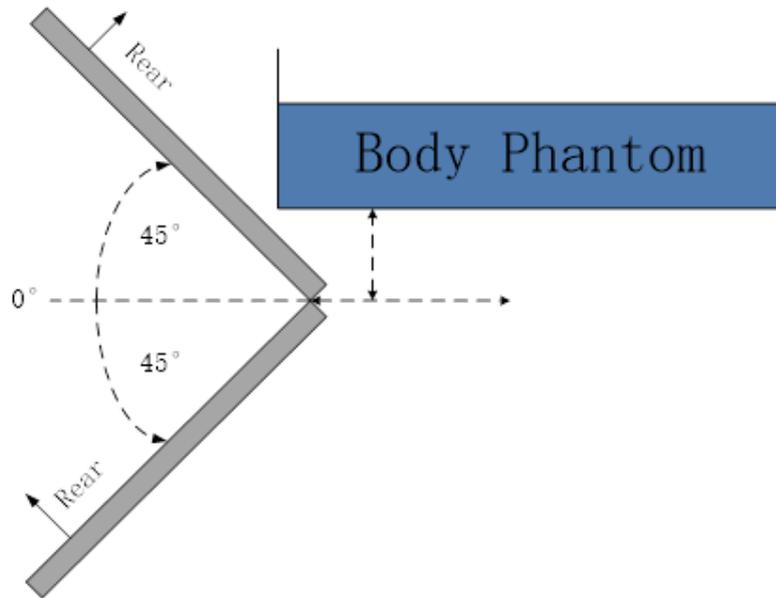
Moving device toward the phantom:

sensor near or far(KDB 616217 6.2.6)											
Distance [mm]	27	26	25	24	23	22	21	20	19	18	17
Main antenna	Far	Far	Far	Far	Far	Near	Near	Near	Near	Near	Near

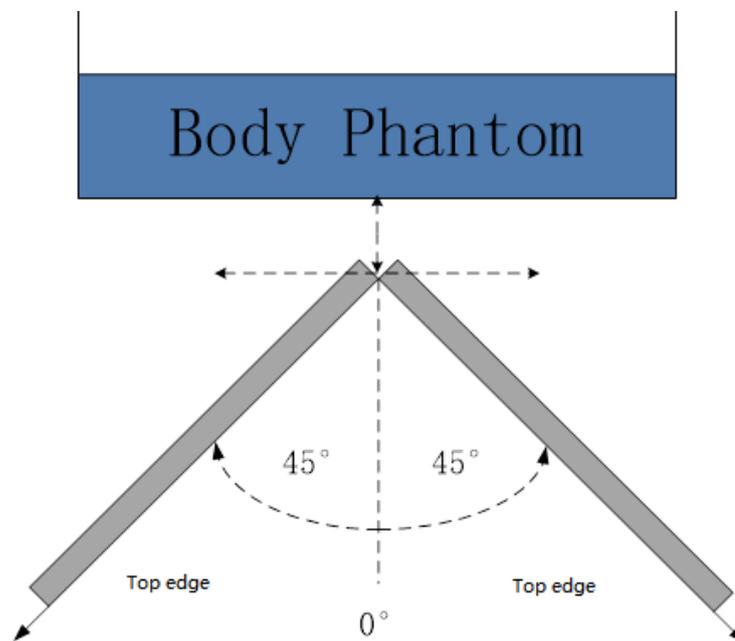
Moving device away from the phantom:

sensor near or far(KDB 616217 6.2.6)											
Distance [mm]	17	18	19	20	21	22	23	24	25	26	27
Main antenna	Near	Near	Near	Near	Near	Near	Far	Far	Far	Far	Far

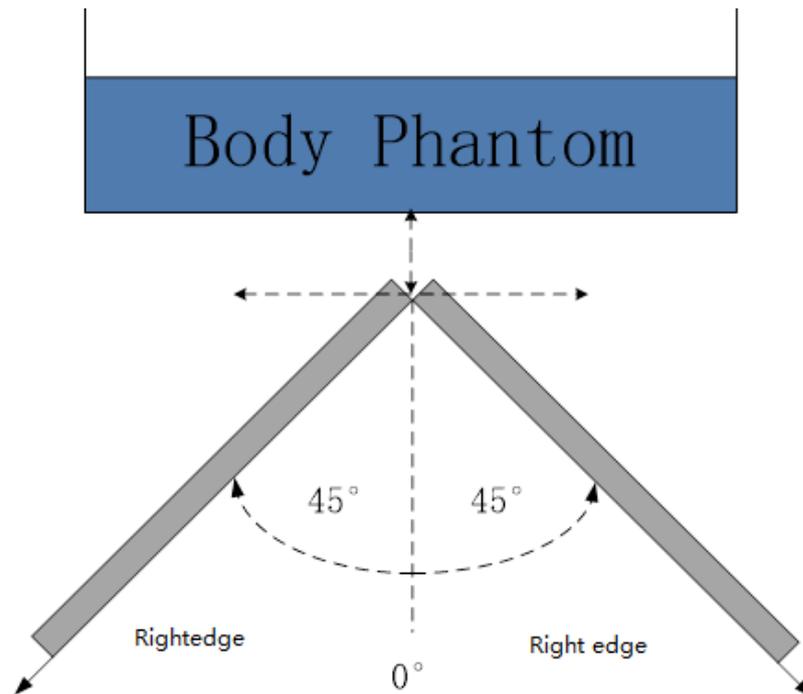
Per FCC KDB Publication 616217 D04v01r02, the influence of table tilt angles to proximity sensor triggering is determined by positioning each edge that contains a transmitting antenna, perpendicular to the flat phantom, at the smallest sensor triggering test distance by rotating the device around the edge next to the phantom in $\leq 10^\circ$ increments until the tablet is $\pm 45^\circ$ or more from the vertical position at 0° .



The front/rear edge evaluation



The bottom/top edge evaluation



The left/right edge evaluation

Based on the above evaluation, we come to the conclusion that the sensor triggering is not released and normal maximum output power is not restored within the $\pm 45^\circ$ range at the smallest sensor triggering test distance declared by manufacturer.

ANNEX J n48 Measurement Results

J.1 Conducted power of selected case

Maximum Target Power for Production Unit

BAND	A1 SA receiver on	A2 SA sensor on	A3 ENDC receiver on	A4 ENDC sensor on	A5 SA & ENDC: receiver off and sensor off
5G NR n48	16.50	22.3	/	/	23.5

Table J.1-1: The conducted Power for n48

No.	Test Freq Description	5G-n48 receiver on							Tune up	Power Results (dBm)	
		SCS (kHz)	NR BW (MHz)	Modulation	RB allocation		NR Test Freq. (MHz)	NR Test CH.		n48	
1	Low	30	10	DFT-s-OFDM QPSK	Inner_Full	12_6	3555	637000	16.50	16.41	
2	Middle	30	10	DFT-s-OFDM QPSK	Inner_Full	12_6	3624.99	641666	16.50	16.28	
3	High	30	10	DFT-s-OFDM QPSK	Inner_Full	12_6	3694.98	646332	16.50	16.07	
4	Low	30	40	DFT-s-OFDM QPSK	Inner_Full	50_25	3570	638000	16.50	16.39	
5	Middle	30	40	DFT-s-OFDM QPSK	Inner_Full	50_25	3624.99	641666	16.50	16.16	
6	High	30	40	DFT-s-OFDM QPSK	Inner_Full	50_25	3679.98	645332	16.50	16.01	
7	Low	30	10	DFT-s-OFDM PI/2 BPSK1	Inner_Full	12_6	3555	637000	16.50	16.30	
8	Low	30	10	DFT-s-OFDM 16QAM	Inner_Full	12_6	3555	637000	16.50	16.25	
9	Low	30	10	DFT-s-OFDM 64QAM	Inner_Full	12_6	3555	637000	16.50	16.20	
10	Low	30	10	DFT-s-OFDM 256QAM	Inner_Full	12_6	3555	637000	16.50	16.12	
11	Low	30	10	CP-OFDM QPSK	Inner_Full	12_6	3555	637000	16.50	16.31	
12	Low	30	10	CP-OFDM 16QAM	Inner_Full	12_6	3555	637000	16.50	16.20	
13	Low	30	10	CP-OFDM 64QAM	Inner_Full	12_6	3555	637000	16.50	16.13	
14	Low	30	10	CP-OFDM 256QAM	Inner_Full	12_6	3555	637000	16.50	16.19	
15	Low	30	10	DFT-s-OFDM QPSK	Edge_Full_Right	1_23	3555	637000	16.50	16.26	
16	Low	30	10	DFT-s-OFDM QPSK	Edge_Full_Left	1_0	3555	637000	16.50	16.27	
17	Low	30	10	DFT-s-OFDM QPSK	Edge_1RB_Right	2_22	3555	637000	16.50	16.17	
18	Low	30	10	DFT-s-OFDM QPSK	Edge_1RB_Left	2_0	3555	637000	16.50	16.21	
19	Low	30	10	DFT-s-OFDM QPSK	Inner_1RB_Right	1_22	3555	637000	16.50	16.30	
20	Low	30	10	DFT-s-OFDM QPSK	Inner_1RB_Left	1_1	3555	637000	16.50	16.28	
21	Low	30	10	DFT-s-OFDM QPSK	Outer_Full	24_0	3555	637000	16.50	16.22	
22	Middle	30	15	DFT-s-OFDM QPSK	Inner_Full	18_9	3624.99	641666	16.50	16.38	
23	Middle	30	20	DFT-s-OFDM QPSK	Inner_Full	25_12	3624.99	641666	16.50	16.40	
24	Middle	30	30	DFT-s-OFDM QPSK	Inner_Full	36_18	3624.99	641666	16.50	16.34	

No.	Test Freq Description	5G-n48 sensor on							Tune up	Power Results (dBm)	
		SCS (kHz)	NR BW (MHz)	Modulation	RB allocation		NR Test Freq. (MHz)	NR Test CH.		n48	
1	Low	30	10	DFT-s-OFDM QPSK	Inner_Full	12_6	3555	637000	22.30	21.60	
2	Middle	30	10	DFT-s-OFDM QPSK	Inner_Full	12_6	3624.99	641666	22.30	21.63	
3	High	30	10	DFT-s-OFDM QPSK	Inner_Full	12_6	3694.98	646332	22.30	21.32	
4	Low	30	40	DFT-s-OFDM QPSK	Inner_Full	50_25	3570	638000	22.30	21.61	
5	Middle	30	40	DFT-s-OFDM QPSK	Inner_Full	50_25	3624.99	641666	22.30	21.48	
6	High	30	40	DFT-s-OFDM QPSK	Inner_Full	50_25	3679.98	645332	22.30	21.32	
7	Low	30	10	DFT-s-OFDM PI/2 BPSK1	Inner_Full	12_6	3624.99	641666	22.30	21.45	
8	Low	30	10	DFT-s-OFDM 16QAM	Inner_Full	12_6	3624.99	641666	22.30	21.39	
9	Low	30	10	DFT-s-OFDM 64QAM	Inner_Full	12_6	3624.99	641666	22.30	21.33	
10	Low	30	10	DFT-s-OFDM 256QAM	Inner_Full	12_6	3624.99	641666	20.50	19.39	
11	Low	30	10	CP-OFDM QPSK	Inner_Full	12_6	3624.99	641666	22.30	21.47	
12	Low	30	10	CP-OFDM 16QAM	Inner_Full	12_6	3624.99	641666	22.30	21.32	
13	Low	30	10	CP-OFDM 64QAM	Inner_Full	12_6	3624.99	641666	21.50	20.31	
14	Low	30	10	CP-OFDM 256QAM	Inner_Full	12_6	3624.99	641666	18.50	17.39	
15	Low	30	10	DFT-s-OFDM QPSK	Edge_Full_Right	1_23	3624.99	641666	22.30	21.41	
16	Low	30	10	DFT-s-OFDM QPSK	Edge_Full_Left	1_0	3624.99	641666	22.30	21.42	
17	Low	30	10	DFT-s-OFDM QPSK	Edge_1RB_Right	2_22	3624.99	641666	22.30	21.28	
18	Low	30	10	DFT-s-OFDM QPSK	Edge_1RB_Left	2_0	3624.99	641666	22.30	21.34	
19	Low	30	10	DFT-s-OFDM QPSK	Inner_1RB_Right	1_22	3624.99	641666	22.30	21.45	
20	Low	30	10	DFT-s-OFDM QPSK	Inner_1RB_Left	1_1	3624.99	641666	22.30	21.43	
21	Low	30	10	DFT-s-OFDM QPSK	Outer_Full	24_0	3624.99	641666	22.30	21.35	
22	Middle	30	15	DFT-s-OFDM QPSK	Inner_Full	18_9	3624.99	641666	22.30	21.56	
23	Middle	30	20	DFT-s-OFDM QPSK	Inner_Full	25_12	3624.99	641666	22.30	21.59	
24	Middle	30	30	DFT-s-OFDM QPSK	Inner_Full	36_18	3624.99	641666	22.30	21.51	

No.	Test Freq Descripti on	5G-n48 sensor off / receiver off							Tune up	Power Results (dBm)		
		SCS (kHz)	NR BW (MHz)	Modulation	RB allocation		NR Test Freq. (MHz)	NR Test CH.		n48		
1	Low	30	10	DFT-s-OFDM QPSK	Inner	Full	12 6	3555	637000	23.50	23.40	
2	Middle	30	10	DFT-s-OFDM QPSK	Inner	Full	12 6	3624.99	641666	23.50	23.46	
3	High	30	10	DFT-s-OFDM QPSK	Inner	Full	12 6	3694.98	646332	23.50	23.14	
4	Low	30	40	DFT-s-OFDM QPSK	Inner	Full	50 25	3570	638000	23.50	23.46	
5	Middle	30	40	DFT-s-OFDM QPSK	Inner	Full	50 25	3624.99	641666	23.50	23.35	
6	High	30	40	DFT-s-OFDM QPSK	Inner	Full	50 25	3679.98	645332	23.50	23.26	
7	Low	30	10	DFT-s-OFDM PI/2 BPSK1	Inner	Full	12 6	3624.99	641666	23.50	23.40	
8	Low	30	10	DFT-s-OFDM 16QAM	Inner	Full	12 6	3624.99	641666	22.50	22.34	
9	Low	30	10	DFT-s-OFDM 64QAM	Inner	Full	12 6	3624.99	641666	21.00	20.81	
10	Low	30	10	DFT-s-OFDM 256QAM	Inner	Full	12 6	3624.99	641666	19.00	18.85	
11	Low	30	10	CP-OFDM QPSK	Inner	Full	12 6	3624.99	641666	22.00	21.86	
12	Low	30	10	CP-OFDM 16QAM	Inner	Full	12 6	3624.99	641666	21.50	21.29	
13	Low	30	10	CP-OFDM 64QAM	Inner	Full	12 6	3624.99	641666	20.00	19.85	
14	Low	30	10	CP-OFDM 256QAM	Inner	Full	12 6	3624.99	641666	17.00	16.82	
15	Low	30	10	DFT-s-OFDM QPSK	Edge	Full	Right	1 23	3624.99	641666	22.50	22.31
16	Low	30	10	DFT-s-OFDM QPSK	Edge	Full	Left	1 0	3624.99	641666	22.50	22.38
17	Low	30	10	DFT-s-OFDM QPSK	Edge	1RB	Right	2 22	3624.99	641666	22.50	22.24
18	Low	30	10	DFT-s-OFDM QPSK	Edge	1RB	Left	2 0	3624.99	641666	22.50	22.24
19	Low	30	10	DFT-s-OFDM QPSK	Inner	1RB	Right	1 22	3624.99	641666	23.50	23.36
20	Low	30	10	DFT-s-OFDM QPSK	Inner	1RB	Left	1 1	3624.99	641666	23.50	23.35
21	Low	30	10	DFT-s-OFDM QPSK	Outer	Full	24 0	3624.99	641666	22.50	22.31	
22	Middle	30	15	DFT-s-OFDM QPSK	Inner	Full	18 9	3624.99	641666	23.50	23.33	
23	Middle	30	20	DFT-s-OFDM QPSK	Inner	Full	25 12	3624.99	641666	23.50	23.31	
24	Middle	30	30	DFT-s-OFDM QPSK	Inner	Full	36 18	3624.99	641666	23.50	23.36	

J.2 Measurement results

RF Exposure Conditions	Frequency Band	Channel Number	Frequency (MHz)	Mode	Test setup	Distance	Figure No.	Note	EUT Measured Power (dBm)	Tune up (dBm)	Measured SAR 1g (W/kg)	Calculated SAR 1g (W/kg)	Measured SAR 10g (W/kg)	Calculated SAR 10g (W/kg)	Power Drift
Head	N48	637000	3555	DFT-s-OFDM QPSK	Cheek Left	0mm	\	SA	16.41	16.50	0.671	0.69	0.236	0.24	0.14
Head	N48	637000	3555	DFT-s-OFDM QPSK	Tilt Left	0mm	FIG J.1	SA	16.41	16.50	0.789	0.81	0.285	0.29	0.07
Head	N48	641666	3624.99	DFT-s-OFDM QPSK	Tilt Left	0mm	\	SA	16.28	16.50	0.763	0.80	0.266	0.28	-0.19
Head	N48	646332	3694.98	DFT-s-OFDM QPSK	Tilt Left	0mm	\	SA	16.07	16.50	0.720	0.79	0.245	0.27	-0.17
Head	N48	637000	3555	DFT-s-OFDM QPSK	Cheek Right	0mm	\	SA	16.41	16.50	0.481	0.49	0.188	0.19	-0.03
Head	N48	637000	3555	DFT-s-OFDM QPSK	Tilt Right	0mm	\	SA	16.41	16.50	0.583	0.60	0.216	0.22	0.01
Head	N48	637000	3555	CP-OFDM QPSK	Tilt Left	0mm	\	SA	16.31	16.50	0.748	0.78	0.253	0.26	0.15
Body	N48	641666	3624.99	DFT-s-OFDM QPSK	Front	10mm	\	SA	21.63	22.30	0.441	0.51	0.188	0.22	-0.17
Body	N48	641666	3624.99	DFT-s-OFDM QPSK	Rear	10mm	\	SA	21.63	22.30	0.365	0.43	0.161	0.19	-0.02
Body	N48	637000	3555	DFT-s-OFDM QPSK	Top	10mm	FIG J.2	SA	21.60	22.30	0.826	0.97	0.351	0.41	0.16
Body	N48	641666	3624.99	DFT-s-OFDM QPSK	Top	10mm	\	SA	21.63	22.30	0.652	0.76	0.280	0.33	0.13
Body	N48	646332	3694.98	DFT-s-OFDM QPSK	Top	10mm	\	SA	21.32	22.30	0.686	0.86	0.287	0.36	0.11
Body	N48	641666	3624.99	DFT-s-OFDM QPSK	Front	19mm	\	SA	23.40	23.50	0.208	0.21	0.101	0.10	0.02
Body	N48	641666	3624.99	DFT-s-OFDM QPSK	Rear	23mm	\	SA	23.40	23.50	0.154	0.16	0.076	0.08	0.05
Body	N48	641666	3624.99	DFT-s-OFDM QPSK	Top	21mm	\	SA	23.40	23.50	0.297	0.30	0.143	0.15	0.01
Body	N48	641666	3624.99	DFT-s-OFDM QPSK	Right	10mm	\	SA	23.40	23.50	0.482	0.49	0.217	0.22	-0.06
Body	N48	637000	3555	CP-OFDM QPSK	Top	10mm	\	SA	21.47	22.30	0.719	0.87	0.306	0.37	0.17

J.3 Tissue Simulating Liquids

Measurement Date (yyyy-mm-dd)	Type	Frequency	Permittivity ϵ	Drift (%)	Conductivity σ (S/m)	Drift (%)
2022/10/11	Head	3500 MHz	38.44	1.34	2.95	1.37

J.4 System Verification

Measurement Date (yyyy-mm-dd)	Frequency	Target value (W/kg)		Measured value(W/kg)		Deviation	
		10 g Average	1 g Average	10 g Average	1 g Average	10 g Average	1 g Average
2022/10/11	3500 MHz	25.3	6.79	25.4	6.7	0.40%	1.62%



J.5 Reported SAR Comparison

Technology Band	Head	Body-Worn	Equipment Class
5G NR n48	0.81	0.97	CBE

ANNEX K GRAPH RESULTS

N48 Head ANT4

Date: 10/11/2022

Electronics: DAE4 Sn777

Medium: H700-6000M

Medium parameters used: $f = 3555$ MHz; $\sigma = 3.006$ S/m; $\epsilon_r = 38.346$; $\rho = 1000$ kg/m³

Ambient Temperature: 23.3°C Liquid Temperature: 22.5°C

Communication System: UID 0, 5G N48 (0) Frequency: 3555 MHz Duty Cycle: 1:1

Probe: EX3DV4 - SN7600 ConvF(7.05, 7.05, 7.05)

Area Scan (81x121x1): Interpolated grid: $dx=1.000$ mm, $dy=1.000$ mm

Maximum value of SAR (interpolated) = 1.46 W/kg

Zoom Scan (6x6x7)/Cube 0: Measurement grid: $dx=4$ mm, $dy=4$ mm, $dz=1.4$ mm

Reference Value = 17.22 V/m; Power Drift = 0.07 dB

Peak SAR (extrapolated) = 2.46 W/kg

SAR(1 g) = 0.789 W/kg; SAR(10 g) = 0.285 W/kg

Maximum value of SAR (measured) = 1.74 W/kg

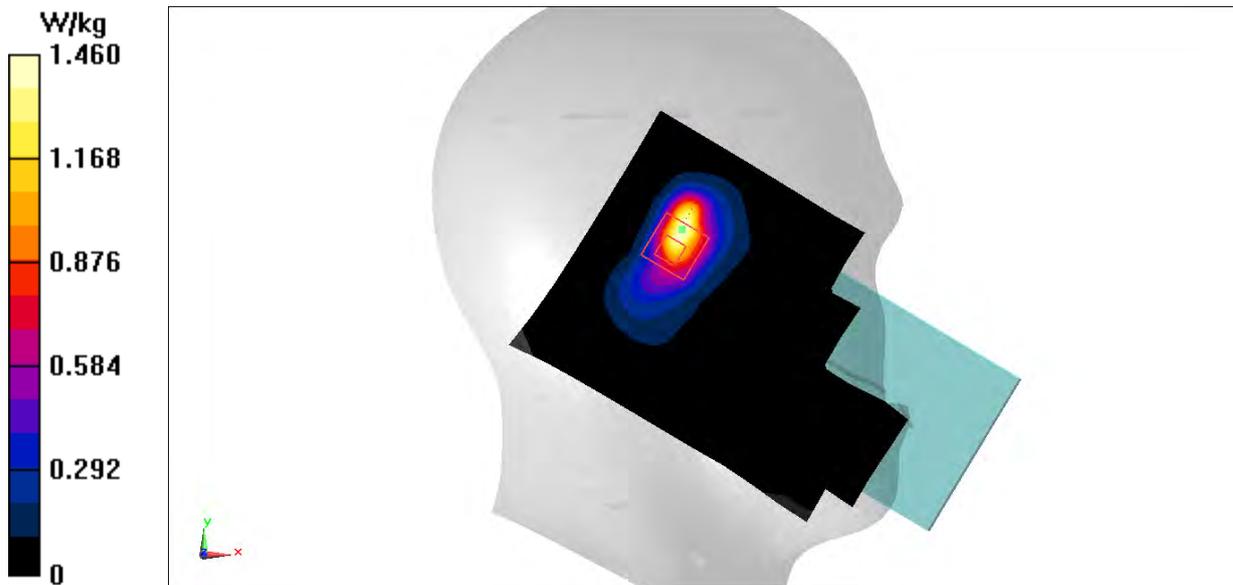


FIG J.1

N48 Body ANT4

Date: 10/11/2022

Electronics: DAE4 Sn777

Medium: H700-6000M

Medium parameters used: $f = 3555$ MHz; $\sigma = 3.006$ S/m; $\epsilon_r = 38.346$; $\rho = 1000$ kg/m³

Ambient Temperature: 23.3°C Liquid Temperature: 22.5°C

Communication System: UID 0, 5G N48 (0) Frequency: 3555 MHz Duty Cycle: 1:1

Probe: EX3DV4 - SN7600 ConvF(7.05, 7.05, 7.05)

Area Scan (101x161x1): Interpolated grid: $dx=1.000$ mm, $dy=1.000$ mm

Maximum value of SAR (interpolated) = 1.57 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: $dx=4$ mm, $dy=4$ mm, $dz=1.4$ mm

Reference Value = 11.55 V/m; Power Drift = 0.16 dB

Peak SAR (extrapolated) = 2.13 W/kg

SAR(1 g) = 0.826 W/kg; SAR(10 g) = 0.351 W/kg

Maximum value of SAR (measured) = 1.54 W/kg

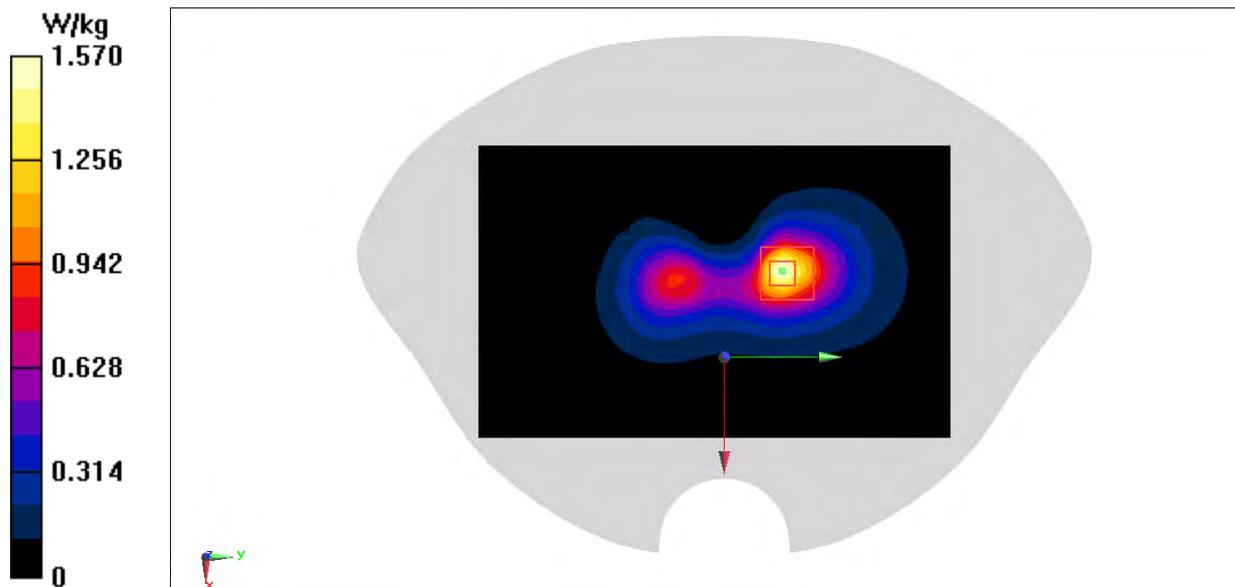


FIG J.2

ANNEX L SYSTEM VALIDATION RESULTS

3500MHz

Date: 10/11/2022

Electronics: DAE4 Sn777

Medium: H700-6000M

Medium parameters used: $f = 3500 \text{ MHz}$; $\sigma = 2.95 \text{ S/m}$; $\epsilon_r = 38.44$; $\rho = 1000 \text{ kg/m}^3$

Ambient Temperature: 23.3°C Liquid Temperature: 22.5°C

Communication System: CW (0) Frequency: 3500 MHz Duty Cycle: 1:1

Probe: EX3DV4 - SN7600 ConvF(7.05, 7.05, 7.05)

Area Scan (91x91x1): Interpolated grid: $dx=1.000 \text{ mm}$, $dy=1.000 \text{ mm}$

Maximum value of SAR (interpolated) = 12.8 W/kg

Zoom Scan (4x4x1.4mm, graded), $dist=1.4\text{mm}$ (8x8x7)/Cube 0: Measurement grid: $dx=4\text{mm}$, $dy=4\text{mm}$, $dz=1.4\text{mm}$

Reference Value = 70.19 V/m ; Power Drift = 0.00 dB

Peak SAR (extrapolated) = 16.5 W/kg

SAR(1 g) = 6.68 W/kg ; SAR(10 g) = 2.54 W/kg

Maximum value of SAR (measured) = 12.3 W/kg

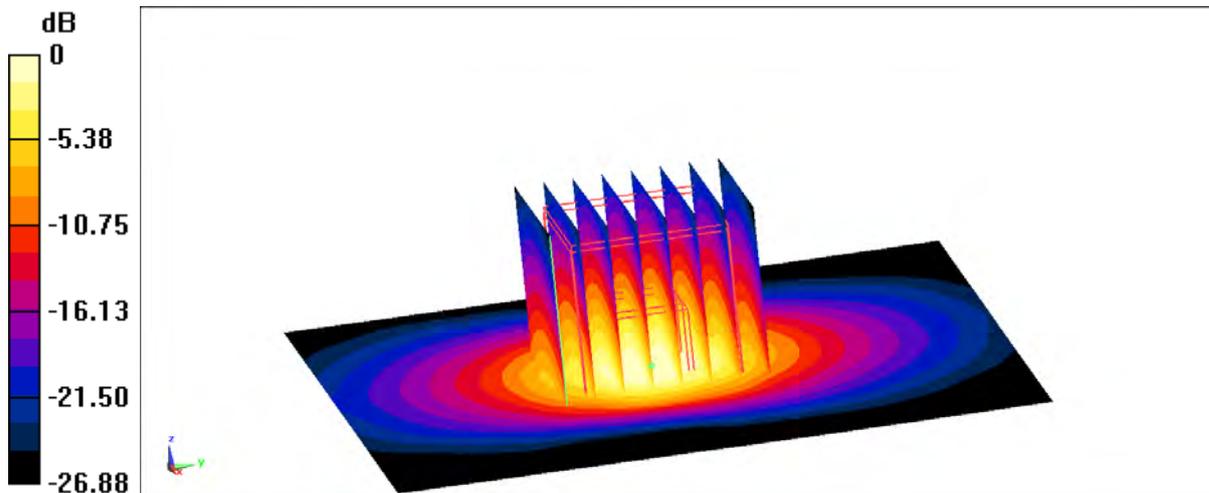


FIG L.1

ANNEX M Accreditation Certificate

United States Department of Commerce
National Institute of Standards and Technology

Certificate of Accreditation to ISO/IEC 17025:2017

NVLAP LAB CODE: 600118-0

Telecommunication Technology Labs, CAICT
Beijing
China

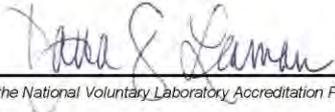
*is accredited by the National Voluntary Laboratory Accreditation Program for specific services,
listed on the Scope of Accreditation, for:*

Electromagnetic Compatibility & Telecommunications

*This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2017.
This accreditation demonstrates technical competence for a defined scope and the operation of a laboratory quality
management system (refer to joint ISO-ILAC-IAF Communique dated January 2009).*

2022-10-01 through 2023-09-30
Effective Dates




For the National Voluntary Laboratory Accreditation Program