Body SAR Test Result

System & Position								DUT Configuration	SAR							
Plot No.	Band	Mode	Test Position	Separation Distance (mm)	Channel	RB#	RB offset	Ant Status	Duty Cycle	Crest Factor	Max. Tune-up Power (dBm)	Measured Conducted Power (dBm)	Scaling Factor	Power Drift (dB)	Measured SAR-1g (W/kg)	Scaled SAR-1g (W/kg)
1	WCDMA II	RMC12.2K	Bottom	0	9262			Ant 0	-	1.00	24.50	22.77	1.49	0	<0.001	0.00
	WCDMA II	RMC12.2K	Bottom	0	9400			Ant 0	-	1.00	24.50	22.53	1.57	0	<0.001	0.00
	WCDMA II	RMC12.2K	Bottom	0	9538			Ant 0	-	1.00	24.50	22.51	1.58	0	<0.001	0.00
	WCDMA IV	RMC12.2K	Bottom	0	1413			Ant 0	-	1.00	24.50	22.62	1.54	0	<0.001	0.00
2	WCDMA IV	RMC12.2K	Bottom	0	1312			Ant 0	-	1.00	24.50	22.60	1.55	0	<0.001	0.00
	WCDMA IV	RMC12.2K	Bottom	0	1513			Ant 0	-	1.00	24.50	22.59	1.55	0	<0.001	0.00
3	WCDMA V	RMC12.2K	Bottom	0	4132			Ant 0	-	1.00	24.50	23.01	1.41	0	<0.001	0.00
	WCDMA V	RMC12.2K	Bottom	0	4182			Ant 0	-	1.00	24.50	22.82	1.47	0	<0.001	0.00
	WCDMA V	RMC12.2K	Bottom	0	4233			Ant 0	-	1.00	24.50	22.59	1.55	0	<0.001	0.00
	LTE 2	QPSK20M	Bottom	0	18700	1	0	Ant 0	-	1.00	24.00	22.53	1.40	0	<0.001	0.00
	LTE 2	QPSK20M	Bottom	0	18700	50	0	Ant 0	-	1.00	23.00	21.66	1.36	0	<0.001	0.00
	LTE 2	QPSK20M	Bottom	0	18900	1	0	Ant 0	-	1.00	24.00	22.41	1.44	0	<0.001	0.00
4	LTE 2	QPSK20M	Bottom	0	19100	1	0	Ant 0	-	1.00	24.00	22.37	1.46	0	<0.001	0.00
	LTE 2	QPSK20M	Bottom	0	PCC:18700 SCC:18898	PCC:1 SCC:1	PCC:99 SCC:0	Ant 0	-	1.00	24.00	22.32	1.47	0	<0.001	0.00
5	LTE 4	QPSK20M	Bottom	0	20050	1	0	Ant 0	-	1.00	24.00	22.66	1.36	0	<0.001	0.00
	LTE 4	QPSK20M	Bottom	0	20050	50	0	Ant 0	-	1.00	23.00	21.58	1.39	0	<0.001	0.00
	LTE 4	QPSK20M	Bottom	0	20175	1	0	Ant 0	-	1.00	24.00	22.50	1.41	0	<0.001	0.00
	LTE 4	QPSK20M	Bottom	0	20300	1	0	Ant 0	-	1.00	24.00	22.36	1.46	0	<0.001	0.00
	LTE 5	QPSK10M	Bottom	0	20450	1	0	Ant 0	-	1.00	24.00	23.41	1.15	0	<0.001	0.00
	LTE 5	QPSK10M	Bottom	0	20450	25	0	Ant 0	-	1.00	23.00	22.49	1.12	0	<0.001	0.00
	LTE 5	QPSK10M	Bottom	0	20525	1	0	Ant 0	-	1.00	24.00	23.36	1.16	0	<0.001	0.00
6	LTE 5	QPSK10M	Bottom	0	20600	1	0	Ant 0	-	1.00	24.00	23.31	1.17	0	<0.001	0.00
	LTE 5	QPSK10M	Bottom	0	PCC:20476 SCC:20575	PCC:1 SCC:1	PCC:49 SCC:0	Ant 0	-	1.00	24.00	22.94	1.28	0	<0.001	0.00
7	LTE 7	QPSK20M	Bottom	0	21100	1	0	Ant 0	-	1.00	24.00	22.81	1.32	0	<0.001	0.00
	LTE 7	QPSK20M	Bottom	0	21100	50	0	Ant 0	-	1.00	23.00	21.85	1.30	0	<0.001	0.00
	LTE 7	QPSK20M	Bottom	0	20850	1	0	Ant 0	-	1.00	24.00	22.71	1.35	0	<0.001	0.00
	LTE 7	QPSK20M	Bottom	0	21350	1	50	Ant 0	-	1.00	24.00	22.66	1.36	0	<0.001	0.00
	LTE 7	QPSK20M	Bottom	0	PCC:21001 SCC:21199	PCC:1 SCC:1	PCC:99 SCC:0	Ant 0	-	1.00	24.00	22.46	1.43	0	<0.001	0.00

Body SAR Test Result

System & Position								DUT Configuration	SAR							
Plot No.	Band	Mode	Test Position	Separation Distance (mm)	Channel	RB#	RB offset	Ant Status	Duty Cycle	Crest Factor	Max. Tune-up Power (dBm)	Measured Conducted Power (dBm)	Scaling Factor	Power Drift (dB)	Measured SAR-1g (W/kg)	Scaled SAR-1g (W/kg)
8	LTE 12	QPSK10M	Bottom	0	23060	1	0	Ant 0	-	1.00	24.00	23.57	1.10	0	<0.001	0.00
	LTE 12	QPSK10M	Bottom	0	23060	25	0	Ant 0	-	1.00	23.00	22.51	1.12	0	<0.001	0.00
	LTE 12	QPSK10M	Bottom	0	23095	1	0	Ant 0	-	1.00	24.00	23.48	1.13	0	<0.001	0.00
	LTE 12	QPSK10M	Bottom	0	23130	1	0	Ant 0	-	1.00	24.00	23.40	1.15	0	<0.001	0.00
9	LTE 13	QPSK10M	Bottom	0	23230	1	0	Ant 0	-	1.00	24.00	23.30	1.17	0	<0.001	0.00
	LTE 13	QPSK10M	Bottom	0	23230	25	0	Ant 0	-	1.00	23.00	22.28	1.18	0	<0.001	0.00
10	LTE 14	QPSK10M	Bottom	0	23330	1	0	Ant 0	-	1.00	24.00	23.06	1.24	0	<0.001	0.00
	LTE 14	QPSK10M	Bottom	0	23330	25	0	Ant 0	-	1.00	23.00	22.16	1.21	0	<0.001	0.00
	LTE 17	QPSK10M	Bottom	0	23790	1	0	Ant 0	-	1.00	24.00	23.35	1.16	0	<0.001	0.00
	LTE 17	QPSK10M	Bottom	0	23790	25	0	Ant 0	-	1.00	23.00	22.30	1.17	0	<0.001	0.00
	LTE 17	QPSK10M	Bottom	0	23780	1	0	Ant 0	-	1.00	24.00	23.33	1.17	0	<0.001	0.00
11	LTE 17	QPSK10M	Bottom	0	23800	1	0	Ant 0	-	1.00	24.00	23.29	1.18	0	<0.001	0.00
12	LTE 25	QPSK20M	Bottom	0	26140	1	0	Ant 0	-	1.00	24.00	22.88	1.29	0	<0.001	0.00
	LTE 25	QPSK20M	Bottom	0	26140	50	0	Ant 0	-	1.00	23.00	21.76	1.33	0	<0.001	0.00
	LTE 25	QPSK20M	Bottom	0	26365	1	0	Ant 0	-	1.00	24.00	22.81	1.32	0	<0.001	0.00
	LTE 25	QPSK20M	Bottom	0	26590	1	0	Ant 0	-	1.00	24.00	22.75	1.33	0	<0.001	0.00
13	LTE 26	QPSK15M	Bottom	0	26765	1	0	Ant 0	-	1.00	24.00	23.27	1.18	0	<0.001	0.00
	LTE 26	QPSK15M	Bottom	0	26765	36	0	Ant 0	-	1.00	23.00	22.27	1.18	0	<0.001	0.00
	LTE 26	QPSK15M	Bottom	0	26865	1	0	Ant 0	-	1.00	24.00	23.25	1.19	0	<0.001	0.00
	LTE 26	QPSK15M	Bottom	0	26965	1	0	Ant 0	-	1.00	24.00	23.22	1.20	0	<0.001	0.00
	LTE 38	QPSK20M	Bottom	0	38000	1	0	Ant 0	-	1.00	24.00	22.97	1.27	0	<0.001	0.00
	LTE 38	QPSK20M	Bottom	0	38000	50	0	Ant 0	-	1.00	23.00	21.91	1.29	0	<0.001	0.00
15	LTE 38	QPSK20M	Bottom	0	37850	1	0	Ant 0	-	1.00	24.00	22.91	1.29	0	<0.001	0.00
	LTE 38	QPSK20M	Bottom	0	38150	1	0	Ant 0	-	1.00	24.00	22.93	1.28	0	<0.001	0.00
	LTE 38	QPSK20M	Bottom	0	PCC:37850 SCC:38048	PCC:1 SCC:1	PCC:99 SCC:0	Ant 0	-	1.00	24.00	23.89	1.03	0	<0.001	0.00

Body SAR Test Result

System & Position								DUT Configuration	SAR							
Plot No.	Band	Mode	Test Position	Separation Distance (mm)	Channel	RB#	RB offset	Ant Status	Duty Cycle	Crest Factor	Max. Tune-up Power (dBm)	Measured Conducted Power (dBm)	Scaling Factor	Power Drift (dB)	Measured SAR-1g (W/kg)	Scaled SAR-1g (W/kg)
	LTE 41	QPSK20M	Bottom	0	41490	1	0	Ant 0	-	1.00	23.50	23.36	1.03	0	<0.001	0.00
	LTE 41	QPSK20M	Bottom	0	41490	50	0	Ant 0	-	1.00	22.50	22.45	1.01	0	<0.001	0.00
	LTE 41	QPSK20M	Bottom	0	39750	1	0	Ant 0	-	1.00	23.50	23.31	1.04	0	<0.001	0.00
16	LTE 41	QPSK20M	Bottom	0	40185	1	0	Ant 0	-	1.00	23.50	23.32	1.04	0	<0.001	0.00
	LTE 41	QPSK20M	Bottom	0	40620	1	0	Ant 0	-	1.00	23.50	23.34	1.04	0	<0.001	0.00
	LTE 41	QPSK20M	Bottom	0	41055	1	50	Ant 0	-	1.00	23.50	23.30	1.05	0	<0.001	0.00
	LTE 41_HPUE	QPSK20M	Bottom	0	41490	1	0	Ant 0	-	1.00	26.50	26.33	1.04	0	<0.001	0.00
	LTE 41	QPSK20M	Bottom	0	PCC:39750 SCC:39948	PCC:1 SCC:1	PCC:99 SCC:0	Ant 0	-	1.00	23.50	23.04	1.11	0	<0.001	0.00
103	LTE 42	QPSK20M	Bottom	0	43340	1	0	Ant 3	-	1.00	19.50	19.34	1.04	0	<0.001	0.00
	LTE 42	QPSK20M	Bottom	0	42590	50	0	Ant 3	-	1.00	18.50	18.33	1.04	0	<0.001	0.00
	LTE 42	QPSK20M	Bottom	0	42190	1	0	Ant 3	-	1.00	19.50	19.30	1.05	0	<0.001	0.00
	LTE 42	QPSK20M	Bottom	0	42590	1	0	Ant 3	-	1.00	19.50	19.32	1.04	0	<0.001	0.00
	LTE 42	QPSK20M	Bottom	0	42990	1	0	Ant 3	-	1.00	19.50	19.24	1.06	0	<0.001	0.00
	LTE 42	QPSK20M	Bottom	0	43190	1	0	Ant 3	-	1.00	19.50	19.32	1.04	0	<0.001	0.00
	LTE 42	QPSK20M	Bottom	0	43490	1	50	Ant 3	-	1.00	19.50	19.26	1.06	0	<0.001	0.00
18	LTE 43	QPSK20M	Bottom	0	43690	1	0	Ant 3	-	1.00	19.50	18.76	1.19	0	<0.001	0.00
	LTE 43	QPSK20M	Bottom	0	43690	50	0	Ant 3	-	1.00	18.50	17.83	1.17	0	<0.001	0.00
	LTE 43	QPSK20M	Bottom	0	44090	1	0	Ant 3	-	1.00	19.50	18.67	1.21	0	<0.001	0.00
	LTE 43	QPSK20M	Bottom	0	44490	1	0	Ant 3	-	1.00	19.50	18.61	1.23	0	<0.001	0.00
	LTE 43	QPSK20M	Bottom	0	PCC:43690 SCC:43888	PCC:1 SCC:1	PCC:99 SCC:0	Ant 3	-	1.00	22.50	21.45	1.27	0	<0.001	0.00
20	LTE 48	QPSK20M	Bottom	0	55340	1	0	Ant 3	-	1.00	19.50	19.30	1.05	0	<0.001	0.00
	LTE 48	QPSK20M	Bottom	0	55340	50	0	Ant 3	-	1.00	18.50	18.36	1.03	0	<0.001	0.00
	LTE 48	QPSK20M	Bottom	0	55780	1	0	Ant 3	-	1.00	19.50	19.23	1.06	0	<0.001	0.00
	LTE 48	QPSK20M	Bottom	0	56210	1	0	Ant 3	-	1.00	19.50	19.19	1.07	0	<0.001	0.00
	LTE 48	QPSK20M	Bottom	0	56640	1	0	Ant 3	-	1.00	19.50	19.11	1.09	0	<0.001	0.00
	LTE 48	QPSK20M	Bottom	0	PCC:55340 SCC:55538	PCC:1 SCC:1	PCC:99 SCC:0	Ant 3	-	1.00	20.50	19.93	1.14	0	<0.001	0.00

Body SAR Test Result

System & Position								DUT Configuration	SAR							
Plot No.	Band	Mode	Test Position	Separation Distance (mm)	Channel	RB#	RB offset	Ant Status	Duty Cycle	Crest Factor	Max. Tune-up Power (dBm)	Measured Conducted Power (dBm)	Scaling Factor	Power Drift (dB)	Measured SAR-1g (W/kg)	Scaled SAR-1g (W/kg)
21	LTE 66	QPSK20M	Bottom	0	132072	1	0	Ant 0	-	1.00	24.00	22.79	1.32	0	<0.001	0.00
	LTE 66	QPSK20M	Bottom	0	132072	50	0	Ant 0	-	1.00	23.00	21.69	1.35	0	<0.001	0.00
	LTE 66	QPSK20M	Bottom	0	132322	1	0	Ant 0	-	1.00	24.00	22.69	1.35	0	<0.001	0.00
	LTE 66	QPSK20M	Bottom	0	132572	1	0	Ant 0	-	1.00	24.00	22.61	1.38	0	<0.001	0.00
	LTE 66B	QPSK10M	Bottom	0	PCC:132373 SCC:132472	PCC:1 SCC:1	PCC:99 SCC:0	Ant 0	-	1.00	24.00	22.23	1.50	0	<0.001	0.00
	LTE 66C	QPSK20M	Bottom	0	PCC:132072 SCC:132270	PCC:1 SCC:1	PCC:99 SCC:0	Ant 0	-	1.00	24.00	22.40	1.45	0	<0.001	0.00
	LTE 71	QPSK20M	Bottom	0	133222	1	0	Ant 0	-	1.00	24.00	23.55	1.11	0	<0.001	0.00
	LTE 71	QPSK20M	Bottom	0	133222	50	0	Ant 0	-	1.00	23.00	22.65	1.08	0	<0.001	0.00
	LTE 71	QPSK20M	Bottom	0	133297	1	0	Ant 0	-	1.00	24.00	23.51	1.12	0	<0.001	0.00
22	LTE 71	QPSK20M	Bottom	0	133372	1	0	Ant 0	-	1.00	24.00	23.49	1.12	0	<0.001	0.00
	5GNR-n2	DFTS-QPSK20M	Bottom	0	376000	1	1	Ant 0	-	1.00	24.50	23.18	1.36	0	<0.001	0.00
	5GNR-n2	DFTS-QPSK20M	Bottom	0	376000	50	28	Ant 0	-	1.00	24.50	23.07	1.39	0	<0.001	0.00
23	5GNR-n2	DFTS-QPSK20M	Bottom	0	372000	1	1	Ant 0	-	1.00	24.50	23.16	1.36	0	<0.001	0.00
	5GNR-n2	DFTS-QPSK20M	Bottom	0	380000	1	1	Ant 0	-	1.00	24.50	23.11	1.38	0	<0.001	0.00
	5GNR-n5	DFTS-QPSK20M	Bottom	0	167300	1	1	Ant 0	-	1.00	24.50	23.35	1.30	0	<0.001	0.00
	5GNR-n5	DFTS-QPSK20M	Bottom	0	167300	50	28	Ant 0	-	1.00	24.50	23.31	1.32	0	<0.001	0.00
24	5GNR-n5	DFTS-QPSK20M	Bottom	0	166800	1	1	Ant 0	-	1.00	24.50	23.22	1.34	0	<0.001	0.00
	5GNR-n5	DFTS-QPSK20M	Bottom	0	167800	1	1	Ant 0	-	1.00	24.50	23.21	1.35	0	<0.001	0.00
25	5GNR-n7	DFTS-QPSK20M	Bottom	0	512000	1	1	Ant 0	-	1.00	24.50	23.18	1.36	0	<0.001	0.00
	5GNR-n7	DFTS-QPSK20M	Bottom	0	512000	50	28	Ant 0	-	1.00	24.50	23.13	1.37	0	<0.001	0.00
	5GNR-n7	DFTS-QPSK20M	Bottom	0	502000	1	1	Ant 0	-	1.00	24.50	23.06	1.39	0	<0.001	0.00
	5GNR-n7	DFTS-QPSK20M	Bottom	0	507000	1	53	Ant 0	-	1.00	24.50	23.10	1.38	0	<0.001	0.00
26	5GNR-n25	DFTS-QPSK20M	Bottom	0	372000	1	1	Ant 0	-	1.00	24.50	23.05	1.40	0	<0.001	0.00
	5GNR-n25	DFTS-QPSK20M	Bottom	0	372000	50	28	Ant 0	-	1.00	24.50	23.02	1.41	0	<0.001	0.00
	5GNR-n25	DFTS-QPSK20M	Bottom	0	376500	1	1	Ant 0	-	1.00	24.50	22.91	1.44	0	<0.001	0.00
	5GNR-n25	DFTS-QPSK20M	Bottom	0	381000	1	1	Ant 0	-	1.00	24.50	22.95	1.43	0	<0.001	0.00
27	5GNR-n30	DFTS-QPSK10M	Bottom	0	462000	1	1	Ant 0	-	1.00	23.00	21.43	1.44	0	<0.001	0.00
	5GNR-n30	DFTS-QPSK10M	Bottom	0	462000	25	14	Ant 0	-	1.00	23.00	21.36	1.46	0	<0.001	0.00

Body SAR Test Result

System & Position								DUT Configuration	SAR							
Plot No.	Band	Mode	Test Position	Separation Distance (mm)	Channel	RB#	RB offset	Ant Status	Duty Cycle	Crest Factor	Max. Tune-up Power (dBm)	Measured Conducted Power (dBm)	Scaling Factor	Power Drift (dB)	Measured SAR-1g (W/kg)	Scaled SAR-1g (W/kg)
28	5GNR-n38	DFTS-QPSK20M	Bottom	0	519000	1	1	Ant 2	-	1.00	25.00	24.87	1.03	0	<0.001	0.00
	5GNR-n38	CP-QPSK20M	Bottom	0	518000	1	1	MIMO	-	1.00	22.50	21.57	1.24	0	<0.001	0.00
	5GNR-n38	DFTS-QPSK20M	Bottom	0	519000	25	13	Ant 2	-	1.00	25.00	24.83	1.04	0	<0.001	0.00
	5GNR-n38	CP-QPSK20M	Bottom	0	518000	25	13	MIMO	-	1.00	22.50	21.51	1.26	0	<0.001	0.00
	5GNR-n38	DFTS-QPSK20M	Bottom	0	516000	1	1	Ant 2	-	1.00	25.00	24.78	1.05	0	<0.001	0.00
	5GNR-n38	DFTS-QPSK20M	Bottom	0	522000	1	1	Ant 2	-	1.00	25.00	24.86	1.03	0	<0.001	0.00
29	5GNR-n40	DFTS-QPSK80M	Bottom	0	470000	1	1	Ant 0	-	1.00	25.00	23.67	1.36	0	<0.001	0.00
	5GNR-n40	DFTS-QPSK80M	Bottom	0	470000	108	55	Ant 0	-	1.00	25.00	23.65	1.36	0	<0.001	0.00
	5GNR-n40	DFTS-QPSK80M	Bottom	0	468000	1	1	Ant 0	-	1.00	25.00	23.61	1.38	0	<0.001	0.00
	5GNR-n40	DFTS-QPSK80M	Bottom	0	472000	1	1	Ant 0	-	1.00	25.00	23.65	1.36	0	<0.001	0.00
50	5GNR-n41_HPUE	DFTS-QPSK100M	Bottom	0	518598	1	1	Ant 2	-	1.00	27.50	26.62	1.22	0	<0.001	0.00
	5GNR-n41	CP-QPSK100M	Bottom	0	528000	1	1	MIMO	-	1.00	23.50	23.28	1.05	0	<0.001	0.00
	5GNR-n41_HPUE	DFTS-QPSK100M	Bottom	0	518598	135	69	Ant 2	-	1.00	27.50	26.02	1.41	0	<0.001	0.00
	5GNR-n41	CP-QPSK100M	Bottom	0	528000	135	69	MIMO	-	1.00	23.50	22.78	1.18	0	<0.001	0.00
	5GNR-n41_HPUE	DFTS-QPSK100M	Bottom	0	509202	1	1	Ant 2	-	1.00	27.50	26.30	1.32	0	<0.001	0.00
	5GNR-n41_HPUE	DFTS-QPSK100M	Bottom	0	513900	1	1	Ant 2	-	1.00	27.50	26.39	1.29	0	<0.001	0.00
	5GNR-n41_HPUE	DFTS-QPSK100M	Bottom	0	523302	1	1	Ant 2	-	1.00	27.50	26.46	1.27	0	<0.001	0.00
	5GNR-n41_HPUE	DFTS-QPSK100M	Bottom	0	528000	1	1	Ant 2	-	1.00	27.50	26.52	1.25	0	<0.001	0.00
	5GNR-n48	DFTS-QPSK40M	Bottom	0	638000	1	1	Ant 3	-	1.00	19.50	19.47	1.01	0	<0.001	0.00
	5GNR-n48	CP-QPSK40M	Bottom	0	638000	1	1	MIMO	-	1.00	21.50	20.58	1.24	0	<0.001	0.00
	5GNR-n48	DFTS-QPSK40M	Bottom	0	638000	50	28	Ant 3	-	1.00	19.50	19.46	1.01	0	<0.001	0.00
	5GNR-n48	CP-QPSK40M	Bottom	0	638000	50	28	MIMO	-	1.00	21.50	20.45	1.27	0	<0.001	0.00
31	5GNR-n48	DFTS-QPSK40M	Bottom	0	640444	1	1	Ant 3	-	1.00	19.50	19.43	1.02	0	<0.001	0.00
	5GNR-n48	DFTS-QPSK40M	Bottom	0	642888	1	53	Ant 3	-	1.00	19.50	19.41	1.02	0	<0.001	0.00
	5GNR-n48	DFTS-QPSK40M	Bottom	0	645332	1	53	Ant 3	-	1.00	19.50	19.30	1.05	0	<0.001	0.00
32	5GNR-n66	DFTS-QPSK30M	Bottom	0	345000	1	1	Ant 0	-	1.00	24.50	22.99	1.42	0	<0.001	0.00
	5GNR-n66	DFTS-QPSK30M	Bottom	0	345000	80	40	Ant 0	-	1.00	24.50	22.91	1.44	0	<0.001	0.00
	5GNR-n66	DFTS-QPSK30M	Bottom	0	349000	1	1	Ant 0	-	1.00	24.50	22.78	1.49	0	<0.001	0.00
	5GNR-n66	DFTS-QPSK30M	Bottom	0	353000	1	1	Ant 0	-	1.00	24.50	22.86	1.46	0	<0.001	0.00

Body SAR Test Result

System & Position								DUT Configuration	SAR							
Plot No.	Band	Mode	Test Position	Separation Distance (mm)	Channel	RB#	RB offset	Ant Status	Duty Cycle	Crest Factor	Max. Tune-up Power (dBm)	Measured Conducted Power (dBm)	Scaling Factor	Power Drift (dB)	Measured SAR-1g (W/kg)	Scaled SAR-1g (W/kg)
33	5GNR-n71	DFTS-QPSK20M	Bottom	0	137600	1	1	Ant 0	-	1.00	24.50	23.53	1.25	0	<0.001	0.00
	5GNR-n71	DFTS-QPSK20M	Bottom	0	137600	50	28	Ant 0	-	1.00	24.50	23.51	1.26	0	<0.001	0.00
	5GNR-n71	DFTS-QPSK20M	Bottom	0	134600	1	1	Ant 0	-	1.00	24.50	23.51	1.26	0	<0.001	0.00
	5GNR-n71	DFTS-QPSK20M	Bottom	0	136100	1	1	Ant 0	-	1.00	24.50	23.45	1.27	0	<0.001	0.00
37	5GNR-n77_HPUE	DFTS-QPSK100M	Bottom	0	633332	1	1	Ant3	-	1.00	27.50	26.62	1.22	0	<0.001	0.00
	5GNR-n77	CP-QPSK100M	Bottom	0	633332	1	1	MIMO	-	1.00	24.50	24.44	1.01	0	<0.001	0.00
	5GNR-n77_HPUE	DFTS-QPSK100M	Bottom	0	633332	135	69	Ant3	-	1.00	27.50	26.57	1.24	0	<0.001	0.00
	5GNR-n77	CP-QPSK100M	Bottom	0	633332	135	69	MIMO	-	1.00	24.50	24.43	1.02	0	<0.001	0.00
	5GNR-n77_HPUE	DFTS-QPSK100M	Bottom	0	650000	1	271	Ant3	-	1.00	27.50	25.77	1.49	0	<0.001	0.00
	5GNR-n77_HPUE	DFTS-QPSK100M	Bottom	0	653000	1	271	Ant3	-	1.00	27.50	25.72	1.51	0	<0.001	0.00
	5GNR-n77_HPUE	DFTS-QPSK100M	Bottom	0	656000	1	271	Ant3	-	1.00	27.50	25.87	1.46	0	<0.001	0.00
	5GNR-n77_HPUE	DFTS-QPSK100M	Bottom	0	659000	1	1	Ant3	-	1.00	27.50	25.98	1.42	0	<0.001	0.00
	5GNR-n77_HPUE	DFTS-QPSK100M	Bottom	0	662000	1	1	Ant3	-	1.00	27.50	26.15	1.36	0	<0.001	0.00
																-

Body SAR Test Result

System & Position								DUT Configuration	SAR							
Plot No.	Band	Mode	Test Position	Separation Distance (mm)	Channel	RB#	RB offset	Ant Status	Duty Cycle	Crest Factor	Max. Tune-up Power (dBm)	Measured Conducted Power (dBm)	Scaling Factor	Power Drift (dB)	Measured SAR-1g (W/kg)	Scaled SAR-1g (W/kg)
	WLAN2.4G	802.11b	Bottom	0	6			Ant 0	100.00	1.00	21.00	20.98	1.00	0	<0.001	0.00
42	WLAN2.4G	802.11b	Bottom	0	6			Ant 1	100.00	1.00	21.00	20.99	1.00	0	<0.001	0.00
	WLAN2.4G	802.11n HT40	Bottom	0	6			Ant 0+1	98.01	1.02	21.00	20.98	1.00	0	<0.001	0.00
	WLAN2.4G	802.11b	Bottom	0	1			Ant 1	100.00	1.00	21.00	20.97	1.01	0	<0.001	0.00
	WLAN2.4G	802.11b	Bottom	0	11			Ant 1	100.00	1.00	21.00	20.96	1.01	0	<0.001	0.00
	WLAN2.4G	802.11b	Bottom	0	12			Ant 1	100.00	1.00	19.00	18.98	1.00	0	<0.001	0.00
	WLAN2.4G	802.11b	Bottom	0	13			Ant 1	100.00	1.00	15.50	15.45	1.01	0	<0.001	0.00
	WLAN5.3G	802.11n HT40	Bottom	0	54			Ant 0	97.01	1.03	21.00	20.98	1.00	0	<0.001	0.00
43	WLAN5.3G	802.11a	Bottom	0	56			Ant 1	96.83	1.03	21.00	20.98	1.00	0	<0.001	0.00
	WLAN5.3G	802.11n HT40	Bottom	0	54			Ant 0+1	98.78	1.01	21.00	20.99	1.00	0	<0.001	0.00
	WLAN5.3G	802.11a	Bottom	0	52			Ant 1	96.83	1.03	21.00	20.95	1.01	0	<0.001	0.00
	WLAN5.3G	802.11a	Bottom	0	60			Ant 1	96.83	1.03	21.00	20.97	1.01	0	<0.001	0.00
	WLAN5.3G	802.11a	Bottom	0	64			Ant 1	96.83	1.03	19.00	18.98	1.00	0	<0.001	0.00
	WLAN5.6G	802.11ac VHT80	Bottom	0	138			Ant 0	97.58	1.02	21.00	20.98	1.00	0	<0.001	0.00
44	WLAN5.6G	802.11ac VHT80	Bottom	0	138			Ant 1	97.83	1.02	21.00	20.98	1.00	0	<0.001	0.00
	WLAN5.6G	802.11ac VHT80	Bottom	0	138			Ant 0+1	96.36	1.04	21.00	20.98	1.00	0	<0.001	0.00
	WLAN5.6G	802.11ac VHT80	Bottom	0	106			Ant 1	97.83	1.02	18.00	17.96	1.01	0	<0.001	0.00
	WLAN5.6G	802.11ac VHT80	Bottom	0	122			Ant 1	97.83	1.02	21.00	20.96	1.01	0	<0.001	0.00
	WLAN5.8G	802.11ac VHT80	Bottom	0	155			Ant 0	97.58	1.02	21.00	20.97	1.01	0	<0.001	0.00
45	WLAN5.8G	802.11ac VHT80	Bottom	0	155			Ant 1	97.83	1.02	21.00	20.98	1.00	0	<0.001	0.00
	WLAN5.8G	802.11ac VHT80	Bottom	0	155			Ant 0+1	96.36	1.04	21.00	20.98	1.00	0	<0.001	0.00
	WLAN 5.9G	802.11ax HE80	Bottom	0	171			Ant 0	97.58	1.02	20.50	20.00	1.12	0	<0.001	0.00
49	WLAN 5.9G	802.11ax HE80	Bottom	0	171			Ant 1	97.83	1.02	20.50	20.49	1.00	0	<0.001	0.00
	WLAN 5.9G	802.11ax HE80	Bottom	0	171			Ant 0+1	96.36	1.04	23.50	23.26	1.06	0	<0.001	0.00
46	BT	BR / EDR	Bottom	0	78			Ant 1	77.01	1.30	10.50	10.48	1.00	0	<0.001	0.00
	BT	BR / EDR	Bottom	0	0			Ant 1	77.01	1.30	10.50	9.72	1.20	0	<0.001	0.00
	BT	BR / EDR	Bottom	0	39			Ant 1	77.01	1.30	10.50	9.99	1.12	0	<0.001	0.00
47	RFID	-	Bottom	0	1			Ant 0	-	1.00	-29.00	-29.93	1.24	0	<0.001	0.00

SAR and Power Density Test Result

System & Position						DUT Configuration	SAR										Power Density								
Plot No.	Band	Mode	Test Position	Separation Distance (mm)	Channel	Ant Status	Duty Cycle	Crest Factor	Max. Tune-up Power (dBm)	Measured Conducted Power (dBm)	Scaling Factor	Power Drift (dB)	Measured SAR-1g (W/kg)	Scaled SAR-1g (W/kg)	Measured APD W/m^2 (4cm^2)	Scaled APD W/m^2 (4cm^2)	Grid Step [λ]	iPD [W/m2]	Scaling Factor for Measurement Uncertainty	Averaging Area [cm2]	Power Drift [dB]	Normal psPD [W/m2]	Scaled Normal psPD [W/m2]	Total psPD [W/m2]	Scaled Total psPD [W/m2]
	UNII-5	802.11ax HE160	Bottom	0	15	Ant 0	98.61	1.01	13.50	13.48	1.00	0	<0.001	0.00	<0.001	0									
48	UNII-5	802.11ax HE160	Bottom	0	15	Ant 1	97.32	1.03	13.50	13.48	1.00	0	<0.001	0.00	<0.001	0	0.0502	1.30	1.545	4.00	0.13	0.064	0.1	0.129	0.21
	UNII-5	802.11ax HE160	Bottom	0	15	Ant 0+1	97.13	1.03	13.50	13.48	1.00	0	<0.001	0.00	<0.001	0									
	UNII-5	802.11ax HE160	Bottom	0	47	Ant 1	97.32	1.03	13.50	13.46	1.01	0	<0.001	0.00	<0.001	0	0.0515	0.00	1.545	4.00	0	<0.001	0	<0.001	0
	UNII-5	802.11ax HE160	Bottom	0	79	Ant 1	97.32	1.03	13.50	13.45	1.01	0	<0.001	0.00	<0.001	0	0.0529	0.00	1.545	4.00	0	<0.001	0	<0.001	0
	UNII-6	802.11ax HE160	Bottom	0	111	Ant 1	97.32	1.03	13.50	13.46	1.01	0	<0.001	0.00	<0.001	0	0.0542	0.00	1.545	4.00	0	<0.001	0	<0.001	0
	UNII-7	802.11ax HE160	Bottom	0	143	Ant 1	97.32	1.03	13.50	13.47	1.01	0	<0.001	0.00	<0.001	0	0.0555	0.00	1.545	4.00	0	<0.001	0	<0.001	0
	UNII-7	802.11ax HE160	Bottom	0	175	Ant 1	97.32	1.03	13.50	13.46	1.01	0	<0.001	0.00	<0.001	0									
	UNII-8	802.11ax HE160	Bottom	0	207	Ant 1	97.32	1.03	13.50	13.47	1.01	0	<0.001	0.00	<0.001	0									
							-	1.00	-	-	1		-	-		-									

Appendix H. Analysis of Simultaneous Transmission.

There is no simultaneous transmission configuration in this device

Appendix H. Analysis of Simultaneous Transmission.

The analysis of simultaneous transmission SAR are shown as below.

<Possibilities of Simultaneous Transmission>

The simultaneous transmission possibilities for this device are listed as below.

Simultaneous TX Combination	Capable Transmit Configurations	Body / Bystander Exposure Condition
A	WWAN + WLAN 2.4G + BT + NFC	Yes
B	WWAN + WLAN 5G + BT + NFC	Yes
C	WWAN + WLAN 6G + BT + NFC	Yes

Notes

1. The WLAN 2.4G and WLAN 5G cannot transmit simultaneously.

Simultaneous Transmission SAR Evaluation_Body										
Band	Position	1	2	3	4	5	6	A(1+2+5+6)	B(1+3+5+6)	E(1+4+5+6)
		Max WWAN	Max WLAN 2.4GHz	Max WLAN 5GHz	Max WLAN 6GHz	Max BT Ant 1	NFC	Summimg result 1g SAR W/kg	Summimg result 1g SAR W/kg	Summimg result 1g SAR W/kg
		1g SAR W/kg	1g SAR W/kg	1g SAR W/kg	1g SAR W/kg	1g SAR W/kg	1g SAR W/kg			
WCDMA II	Bottom Side	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
WCDMA IV	Bottom Side	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
WCDMA V	Bottom Side	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LTE 2	Bottom Side	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LTE 4	Bottom Side	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LTE 5	Bottom Side	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LTE 7	Bottom Side	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LTE 12	Bottom Side	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LTE 13	Bottom Side	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LTE 14	Bottom Side	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LTE 17	Bottom Side	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LTE 25	Bottom Side	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LTE 26	Bottom Side	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LTE 38	Bottom Side	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LTE 41	Bottom Side	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LTE 42 for FCC	Bottom Side	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LTE 43 for FCC	Bottom Side	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LTE 48 for FCC	Bottom Side	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LTE 66	Bottom Side	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LTE 71	Bottom Side	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5GNR-n2	Bottom Side	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5GNR-n5	Bottom Side	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5GNR-n7	Bottom Side	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5GNR-n25	Bottom Side	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5GNR-n30	Bottom Side	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5GNR-n38	Bottom Side	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5GNR-n40	Bottom Side	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5GNR-n41	Bottom Side	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5GNR-n48 for FCC	Bottom Side	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5GNR-n66	Bottom Side	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5GNR-n71	Bottom Side	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5GNR-n77 for FCC	Bottom Side	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Total Exposure Ratio_Body						
Band	Position	1	4	5	6	E(1+4+5+6)
		Max WWAN	Max WLAN 6GHz	Max BT Ant 1	NFC	Total Exposure Ratio
		1g SAR W/kg	4cm² W/m²	1g SAR W/kg	1g SAR W/kg	
WCDMA II	Bottom Side	0.00	0.21	0.00	0.00	0.02
WCDMA IV	Bottom Side	0.00	0.21	0.00	0.00	0.02
WCDMA V	Bottom Side	0.00	0.21	0.00	0.00	0.02
LTE 2	Bottom Side	0.00	0.21	0.00	0.00	0.02
LTE 4	Bottom Side	0.00	0.21	0.00	0.00	0.02
LTE 5	Bottom Side	0.00	0.21	0.00	0.00	0.02
LTE 7	Bottom Side	0.00	0.21	0.00	0.00	0.02
LTE 12	Bottom Side	0.00	0.21	0.00	0.00	0.02
LTE 13	Bottom Side	0.00	0.21	0.00	0.00	0.02
LTE 14	Bottom Side	0.00	0.21	0.00	0.00	0.02
LTE 17	Bottom Side	0.00	0.21	0.00	0.00	0.02
LTE 25	Bottom Side	0.00	0.21	0.00	0.00	0.02
LTE 26	Bottom Side	0.00	0.21	0.00	0.00	0.02
LTE 38	Bottom Side	0.00	0.21	0.00	0.00	0.02
LTE 41	Bottom Side	0.00	0.21	0.00	0.00	0.02
LTE 42 for FCC	Bottom Side	0.00	0.21	0.00	0.00	0.02
LTE 43 for FCC	Bottom Side	0.00	0.21	0.00	0.00	0.02
LTE 48 for FCC	Bottom Side	0.00	0.21	0.00	0.00	0.02
LTE 66	Bottom Side	0.00	0.21	0.00	0.00	0.02
LTE 71	Bottom Side	0.00	0.21	0.00	0.00	0.02
5GNR-n2	Bottom Side	0.00	0.21	0.00	0.00	0.02
5GNR-n5	Bottom Side	0.00	0.21	0.00	0.00	0.02
5GNR-n7	Bottom Side	0.00	0.21	0.00	0.00	0.02
5GNR-n25	Bottom Side	0.00	0.21	0.00	0.00	0.02
5GNR-n30	Bottom Side	0.00	0.21	0.00	0.00	0.02
5GNR-n38	Bottom Side	0.00	0.21	0.00	0.00	0.02
5GNR-n40	Bottom Side	0.00	0.21	0.00	0.00	0.02
5GNR-n41	Bottom Side	0.00	0.21	0.00	0.00	0.02
5GNR-n48 for FCC	Bottom Side	0.00	0.21	0.00	0.00	0.02
5GNR-n66	Bottom Side	0.00	0.21	0.00	0.00	0.02
5GNR-n71	Bottom Side	0.00	0.21	0.00	0.00	0.02
5GNR-n77 for FCC	Bottom Side	0.00	0.21	0.00	0.00	0.02

Simultaneous Transmission SAR Evaluation (Body)												
			1	2	3	4	5	6	7	A(1+2+3+6+7)	B(1+2+4+6+7)	C(1+2+5+6+7)
Band	Band	Position	Max WWAN	Max NR	Max WLAN 2.4GHz	Max WLAN 5GHz	Max WLAN 6G	BT	NFC	Summimg result	Summimg result	Summimg result
			1g SAR W/kg	1g SAR W/kg	1g SAR W/kg	1g SAR W/kg	1g SAR W/kg	1g SAR W/kg	1g SAR W/kg	10g SAR W/kg	10g SAR W/kg	10g SAR W/kg
LTE 14	5GNR-n2	Bottom	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LTE 2	5GNR-n5	Bottom	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LTE 7	5GNR-n5	Bottom	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LTE 48	5GNR-n5	Bottom	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LTE 66	5GNR-n5	Bottom	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LTE 48	5GNR-n25	Bottom	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LTE 5	5GNR-n25	Bottom	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LTE 12	5GNR-n25	Bottom	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LTE 13	5GNR-n25	Bottom	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LTE 14	5GNR-n25	Bottom	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LTE 71	5GNR-n25	Bottom	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LTE 5	5GNR-n7	Bottom	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LTE 12	5GNR-n7	Bottom	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LTE 66	5GNR-n7	Bottom	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LTE 71	5GNR-n7	Bottom	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LTE 2	5GNR-n41	Bottom	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LTE 4	5GNR-n41	Bottom	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LTE 5	5GNR-n41	Bottom	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LTE 12	5GNR-n41	Bottom	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LTE 25	5GNR-n41	Bottom	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LTE 26	5GNR-n41	Bottom	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LTE 41	5GNR-n41	Bottom	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LTE 66	5GNR-n41	Bottom	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LTE 71	5GNR-n41	Bottom	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LTE 5	5GNR-n66	Bottom	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LTE 12	5GNR-n66	Bottom	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LTE 14	5GNR-n66	Bottom	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LTE 48	5GNR-n66	Bottom	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LTE 71	5GNR-n66	Bottom	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LTE 2	5GNR-n71	Bottom	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LTE 7	5GNR-n71	Bottom	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LTE 48	5GNR-n71	Bottom	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LTE 66	5GNR-n71	Bottom	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LTE 2	5GNR-n77	Bottom	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LTE 5	5GNR-n77	Bottom	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LTE 7	5GNR-n77	Bottom	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LTE 12	5GNR-n77	Bottom	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LTE 13	5GNR-n77	Bottom	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LTE 14	5GNR-n77	Bottom	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LTE 25	5GNR-n77	Bottom	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LTE 41	5GNR-n77	Bottom	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LTE 66	5GNR-n77	Bottom	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LTE 71	5GNR-n77	Bottom	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Total Exposure Ratio_Body								
Band	Band	Position	1	2	5	6	7	C(1+2+5+6+7)
			Max WWAN	Max NR	Max WLAN 6G	BT	NFC	Total Exposure Ratio
			1g SAR W/kg	1g SAR W/kg	4cm^2 W/m^2	1g SAR W/kg	1g SAR W/kg	
LTE 14	5GNR-n2	Bottom	0.00	0.00	0.21	0.00	0.00	0.02
LTE 2	5GNR-n5	Bottom	0.00	0.00	0.21	0.00	0.00	0.02
LTE 7	5GNR-n5	Bottom	0.00	0.00	0.21	0.00	0.00	0.02
LTE 48	5GNR-n5	Bottom	0.00	0.00	0.21	0.00	0.00	0.02
LTE 66	5GNR-n5	Bottom	0.00	0.00	0.21	0.00	0.00	0.02
LTE 48	5GNR-n25	Bottom	0.00	0.00	0.21	0.00	0.00	0.02
LTE 5	5GNR-n25	Bottom	0.00	0.00	0.21	0.00	0.00	0.02
LTE 12	5GNR-n25	Bottom	0.00	0.00	0.21	0.00	0.00	0.02
LTE 13	5GNR-n25	Bottom	0.00	0.00	0.21	0.00	0.00	0.02
LTE 14	5GNR-n25	Bottom	0.00	0.00	0.21	0.00	0.00	0.02
LTE 71	5GNR-n25	Bottom	0.00	0.00	0.21	0.00	0.00	0.02
LTE 5	5GNR-n7	Bottom	0.00	0.00	0.21	0.00	0.00	0.02
LTE 12	5GNR-n7	Bottom	0.00	0.00	0.21	0.00	0.00	0.02
LTE 66	5GNR-n7	Bottom	0.00	0.00	0.21	0.00	0.00	0.02
LTE 71	5GNR-n7	Bottom	0.00	0.00	0.21	0.00	0.00	0.02
LTE 2	5GNR-n41	Bottom	0.00	0.00	0.21	0.00	0.00	0.02
LTE 4	5GNR-n41	Bottom	0.00	0.00	0.21	0.00	0.00	0.02
LTE 5	5GNR-n41	Bottom	0.00	0.00	0.21	0.00	0.00	0.02
LTE 12	5GNR-n41	Bottom	0.00	0.00	0.21	0.00	0.00	0.02
LTE 25	5GNR-n41	Bottom	0.00	0.00	0.21	0.00	0.00	0.02
LTE 26	5GNR-n41	Bottom	0.00	0.00	0.21	0.00	0.00	0.02
LTE 41	5GNR-n41	Bottom	0.00	0.00	0.21	0.00	0.00	0.02
LTE 66	5GNR-n41	Bottom	0.00	0.00	0.21	0.00	0.00	0.02
LTE 71	5GNR-n41	Bottom	0.00	0.00	0.21	0.00	0.00	0.02
LTE 5	5GNR-n66	Bottom	0.00	0.00	0.21	0.00	0.00	0.02
LTE 12	5GNR-n66	Bottom	0.00	0.00	0.21	0.00	0.00	0.02
LTE 14	5GNR-n66	Bottom	0.00	0.00	0.21	0.00	0.00	0.02
LTE 48	5GNR-n66	Bottom	0.00	0.00	0.21	0.00	0.00	0.02
LTE 71	5GNR-n66	Bottom	0.00	0.00	0.21	0.00	0.00	0.02
LTE 2	5GNR-n71	Bottom	0.00	0.00	0.21	0.00	0.00	0.02
LTE 7	5GNR-n71	Bottom	0.00	0.00	0.21	0.00	0.00	0.02
LTE 48	5GNR-n71	Bottom	0.00	0.00	0.21	0.00	0.00	0.02
LTE 66	5GNR-n71	Bottom	0.00	0.00	0.21	0.00	0.00	0.02
LTE 2	5GNR-n77	Bottom	0.00	0.00	0.21	0.00	0.00	0.02
LTE 5	5GNR-n77	Bottom	0.00	0.00	0.21	0.00	0.00	0.02
LTE 7	5GNR-n77	Bottom	0.00	0.00	0.21	0.00	0.00	0.02
LTE 12	5GNR-n77	Bottom	0.00	0.00	0.21	0.00	0.00	0.02
LTE 13	5GNR-n77	Bottom	0.00	0.00	0.21	0.00	0.00	0.02
LTE 14	5GNR-n77	Bottom	0.00	0.00	0.21	0.00	0.00	0.02
LTE 25	5GNR-n77	Bottom	0.00	0.00	0.21	0.00	0.00	0.02
LTE 41	5GNR-n77	Bottom	0.00	0.00	0.21	0.00	0.00	0.02
LTE 66	5GNR-n77	Bottom	0.00	0.00	0.21	0.00	0.00	0.02
LTE 71	5GNR-n77	Bottom	0.00	0.00	0.21	0.00	0.00	0.02

Appendix J. Calibration of Test Equipment List

Calibration of Test Equipment List are shown as below.

Equipment for SAR Test					
Equipment	Manufacturer	Model	SN	Cal. Date	Cal. Interval
System Validation Dipole	SPEAG	CLA13	1018	Mar. 20, 2023	1 Year
System Validation Dipole	SPEAG	D750V3	1013	Aug. 21, 2023	1 Year
System Validation Dipole	SPEAG	D835V2	4d121	Aug. 21, 2023	1 Year
System Validation Dipole	SPEAG	D1750V2	1055	Sep. 21, 2023	1 Year
System Validation Dipole	SPEAG	D1900V2	5d036	Feb. 19, 2024	1 Year
System Validation Dipole	SPEAG	D2300V2	1092	Dec. 07, 2023	1 Year
System Validation Dipole	SPEAG	D2450V2	737	Feb. 19, 2024	1 Year
System Validation Dipole	SPEAG	D2600V2	1020	Aug. 18, 2023	1 Year
System Validation Dipole	SPEAG	D3500V2	1007	Jan. 23, 2024	1 Year
System Validation Dipole	SPEAG	D3700V2	1017	Feb. 15, 2024	1 Year
System Validation Dipole	SPEAG	D3900V2	1045	Nov. 21, 2023	1 Year
System Validation Dipole	SPEAG	D5GHzV2	1019	Feb. 13, 2024	1 Year
System Validation Dipole	SPEAG	D5GHzV2	1203	Dec. 14, 2023	1 Year
System Validation Dipole	SPEAG	D6.5GHzV2	1008	Sep. 21, 2023	1 Year
System Verification Source	SPEAG	5G Verification Source 10 GHz	1025	Jan. 18, 2024	1 Year
Dosimetric E-Field Probe	SPEAG	EX3DV4	7472	Oct. 23, 2023	1 Year
Dosimetric E-Field Probe	SPEAG	EX3DV4	7555	Jul. 19, 2023	1 Year
Dosimetric E-Field Probe	SPEAG	EX3DV4	7720	Mar. 23, 2023	1 Year
Dosimetric E-Field Probe	SPEAG	EX3DV4	7797	Jan. 08, 2024	1 Year
E-Field Probe	SPEAG	EUmmWV4	9615	Jul. 10, 2023	1 Year
Data Acquisition Electronics	SPEAG	DAE4	1585	Jul. 14, 2023	1 Year
Data Acquisition Electronics	SPEAG	DAE4	1590	Sep. 14, 2023	1 Year
Data Acquisition Electronics	SPEAG	DAE4	1431	Aug. 24, 2023	1 Year
Data Acquisition Electronics	SPEAG	DAE4	1698	Nov. 17, 2023	1 Year
Data Acquisition Electronics	SPEAG	DAE4	1589	May. 24, 2023	1 Year
Universal Radio Communication Tester	Anritsu	MT8821C	6201381727	Aug. 09, 2023	1 Year
Universal Radio Communication Tester	Anritsu	MT8000A	6272278610	Aug. 16, 2023	1 Year
Analong Signal Generator	R&S	SMA100B	104417	Oct. 23, 2023	1 Year
Mini-Circuits Wideband Amplifier	Mini-Circuits	ZVA-183-S+	434502031A	Jul. 07, 2023	1 Year
Power Meter	Anritsu	ML2495A	1218009	Jul. 03, 2023	1 Year
Power Sensor	Anritsu	MA2411B	1207252	Jul. 03, 2023	1 Year
Universal Wireless Test Set	Anritsu	MT8870A	6262296569	Aug. 16, 2023	1 Year
Thermometer	YFE	YF-160A	120702365	Sep. 11, 2023	1 Year
Dielectric Assessment Kit	SPEAG	DAKS-3.5	1092	May. 23, 2023	1 Year
Dielectric Assessment Kit	SPEAG	DAKS_VNA R140	0010917	May. 22, 2023	1 Year
Powersource1	SPEAG	SE_UMS_160 BA	1052	Jul. 13, 2023	1 Year

Appendix Z. Calibration Certificate for Probe and Dipole

The SPEAG calibration certificates are shown as follows.

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

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

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

Accreditation No.: SCS 0108

Client B.V. ADT
Taoyuan City, Taiwan

Certificate No. CLA13-1018_Mar23

CALIBRATION CERTIFICATE

Object: CLA13 - SN: 1018

Calibration procedure(s): QA CAL-15.v10
Calibration Procedure for SAR Validation Sources below 700 MHz

Calibration date: March 20, 2023

This calibration certificate documents the traceability to national standards, which realize the physical units of measurements (SI).
The measurements and the uncertainties with confidence probability are given on the following pages and are part of the certificate.

All calibrations have been conducted in the closed laboratory facility: environment temperature (22 ± 3)°C and humidity < 70%.

Calibration Equipment used (M&TE critical for calibration)

Primary Standards	ID #	Cal Date (Certificate No.)	Scheduled Calibration
Power meter NRP	SN: 104778	04-Apr-22 (No. 217-03525/03524)	Apr-23
Power sensor NRP-Z91	SN: 103244	04-Apr-22 (No. 217-03524)	Apr-23
Power sensor NRP-Z91	SN: 103245	04-Apr-22 (No. 217-03525)	Apr-23
Reference 20 dB Attenuator	SN: CC2552 (20x)	04-Apr-22 (No. 217-03527)	Apr-23
Type-N mismatch combination	SN: 310982 / 06327	04-Apr-22 (No. 217-03528)	Apr-23
Reference Probe EX3DV4	SN: 3877	06-Jan-23 (No. EX3-3877_Jan23)	Jan-24
DAE4	SN: 654	27-Jan-23 (No. DAE4-654_Jan23)	Jan-24

Secondary Standards	ID #	Check Date (in house)	Scheduled Check
Power meter NRP2	SN: 107193	08-Nov-21 (in house check Dec-22)	In house check: Dec-24
Power sensor NRP-Z91	SN: 100922	15-Dec-09 (in house check Dec-22)	In house check: Dec-24
Power sensor NRP-Z91	SN: 100418	01-Jan-04 (in house check Dec-22)	In house check: Dec-24
RF generator HP 8648C	SN: US3642U01700	04-Aug-99 (in house check Jun-22)	In house check: Jun-24
Network Analyzer Agilent E8358A	SN: US41080477	31-Mar-14 (in house check Oct-22)	In house check: Oct-24

	Name	Function	Signature
Calibrated by:	Jeton Kastrati	Laboratory Technician	
Approved by:	Sven Kühn	Technical Manager	

Issued: March 21, 2023

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.
b) KDB 865664, "SAR Measurement Requirements for 100 MHz to 6 GHz"

Additional Documentation:

c) 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 source is mounted in a touch configuration below the center marking of the flat phantom.
- *Return Loss:* This parameter is measured with the source positioned under the liquid filled phantom (as described in the measurement condition clause). 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 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%.

Measurement Conditions

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

DASY Version	DASY5	V52.10.4
Extrapolation	Advanced Extrapolation	
Phantom	ELI4 Flat Phantom	Shell thickness: 2 ± 0.2 mm
EUT Positioning	Touch Position	
Zoom Scan Resolution	dx, dy = 4.0 mm, dz = 1.4 mm	Graded Ratio = 1.4 (Z direction)
Frequency	13 MHz ± 1 MHz	

Head TSL parameters

The following parameters and calculations were applied.

	Temperature	**Permittivity**	**Conductivity**
Nominal Head TSL parameters	22.0 °C	55.0	0.75 mho/m
Measured Head TSL parameters	(22.0 ± 0.2) °C	54.1 ± 6 %	0.74 mho/m ± 6 %
Head TSL temperature change during test	< 0.5 °C	----	----

SAR result with Head TSL

SAR averaged over 1 cm^3 (1 g) of Head TSL	Condition	
SAR measured	1 W input power	0.534 W/kg
SAR for nominal Head TSL parameters	normalized to 1W	**0.538 W/kg ± 18.4 % (k=2)**

SAR averaged over 10 cm^3 (10 g) of Head TSL	condition	
SAR measured	1 W input power	0.335 W/kg
SAR for nominal Head TSL parameters	normalized to 1W	**0.337 W/kg ± 18.0 % (k=2)**

Appendix (Additional assessments outside the scope of SCS 0108)

Antenna Parameters with Head TSL

Impedance, transformed to feed point	52.0 Ω + 2.8 jΩ
Return Loss	- 29.4 dB

Additional EUT Data

Manufactured by	SPEAG

DASY5 Validation Report for Head TSL

Date: 20.03.2023

Test Laboratory: SPEAG, Zurich, Switzerland

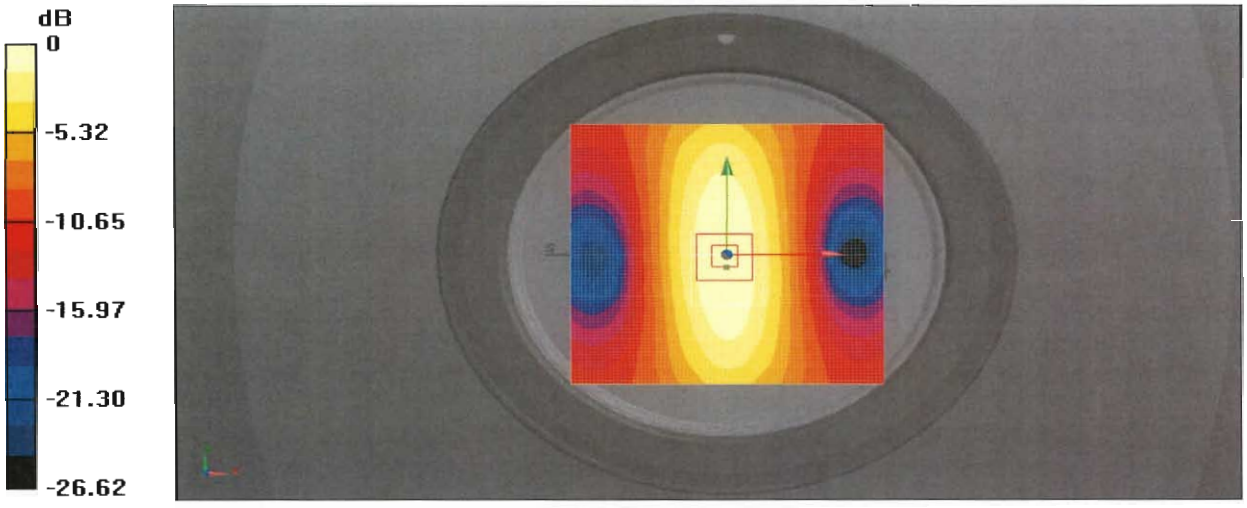
DUT: CLA13; Type: CLA13; Serial: CLA13 - SN: 1018

Communication System: UID 0 - CW; Frequency: 13 MHz
Medium parameters used: f = 13 MHz; σ = 0.74 S/m; εr = 54.1; ρ = 1000 kg/m3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY52 Configuration:

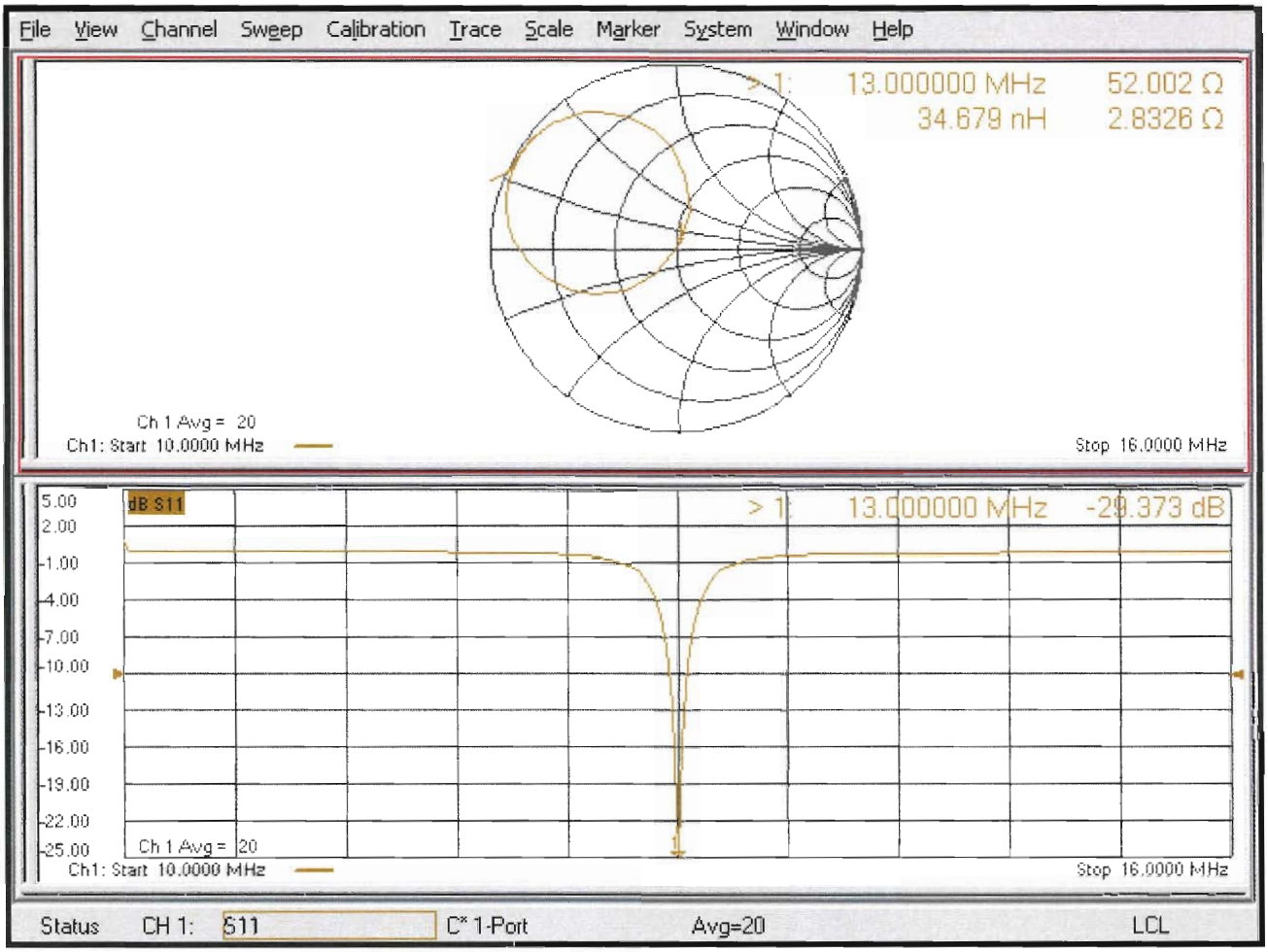
- Probe: EX3DV4 - SN3877; ConvF(15.33, 15.33, 15.33) @ 13 MHz; Calibrated: 06.01.2023
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn654; Calibrated: 27.01.2023
- Phantom: ELI v6.0; Type: QDOVA003AA; Serial: TP:2034
- DASY52 52.10.4(1535); SEMCAD X 14.6.14(7501)

CLA Calibration for HSL-LF Tissue/CLA-13, touch configuration, Pin=1W/Zoom Scan, dist=1.4mm (8x10x8)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm
Reference Value = 32.07 V/m; Power Drift = -0.06 dB
Peak SAR (extrapolated) = 1.05 W/kg
SAR(1 g) = 0.534 W/kg; SAR(10 g) = 0.335 W/kg
Smallest distance from peaks to all points 3 dB below = 18.4 mm
Ratio of SAR at M2 to SAR at M1 = 79.5%
Maximum value of SAR (measured) = 0.782 W/kg



0 dB = 0.782 W/kg = -1.07 dBW/kg

Impedance Measurement Plot for Head TSL



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

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

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

Accreditation No.: SCS 0108

Client **B.V. ADT**
Taoyuan City

Certificate No. **D750V3-1013_Aug23**

CALIBRATION CERTIFICATE

Object	D750V3 - SN:1013
Calibration procedure(s)	QA CAL-05.v12 Calibration Procedure for SAR Validation Sources between 0.7-3 GHz
Calibration date:	August 21, 2023

This calibration certificate documents the traceability to national standards, which realize the physical units of measurements (SI).
The measurements and the uncertainties with confidence probability are given on the following pages and are part of the certificate.

All calibrations have been conducted in the closed laboratory facility: environment temperature (22 ± 3)°C and humidity < 70%.

Calibration Equipment used (M&TE critical for calibration)

Primary Standards	ID #	Cal Date (Certificate No.)	Scheduled Calibration
Power meter NRP2	SN: 104778	30-Mar-23 (No. 217-03804/03805)	Mar-24
Power sensor NRP-Z91	SN: 103244	30-Mar-23 (No. 217-03804)	Mar-24
Power sensor NRP-Z91	SN: 103245	30-Mar-23 (No. 217-03805)	Mar-24
Reference 20 dB Attenuator	SN: BH9394 (20k)	30-Mar-23 (No. 217-03809)	Mar-24
Type-N mismatch combination	SN: 310982 / 06327	30-Mar-23 (No. 217-03810)	Mar-24
Reference Probe EX3DV4	SN: 7349	10-Jan-23 (No. EX3-7349_Jan23)	Jan-24
DAE4	SN: 601	19-Dec-22 (No. DAE4-601_Dec22)	Dec-23

Secondary Standards	ID #	Check Date (in house)	Scheduled Check
Power meter E4419B	SN: GB39512475	30-Oct-14 (in house check Oct-22)	In house check: Oct-24
Power sensor HP 8481A	SN: US37292783	07-Oct-15 (in house check Oct-22)	In house check: Oct-24
Power sensor HP 8481A	SN: MY41093315	07-Oct-15 (in house check Oct-22)	In house check: Oct-24
RF generator R&S SMT-06	SN: 100972	15-Jun-15 (in house check Oct-22)	In house check: Oct-24
Network Analyzer Agilent E8358A	SN: US41080477	31-Mar-14 (in house check Oct-22)	In house check: Oct-24

	Name	Function	Signature
Calibrated by:	Michael Weber	Laboratory Technician	
Approved by:	Sven Kühn	Technical Manager	

Issued: August 22, 2023

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.
b) KDB 865664, "SAR Measurement Requirements for 100 MHz to 6 GHz"

Additional Documentation:

c) 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 source is mounted in a touch configuration below the center marking of the flat phantom.
- *Return Loss:* This parameter is measured with the source positioned under the liquid filled phantom (as described in the measurement condition clause). 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 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%.

Measurement Conditions

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

DASY Version	DASY52	V52.10.4
Extrapolation	Advanced Extrapolation	
Phantom	Modular Flat Phantom	
Distance Dipole Center - TSL	15 mm	with Spacer
Zoom Scan Resolution	dx, dy, dz = 5 mm	
Frequency	750 MHz ± 1 MHz	

Head TSL parameters

The following parameters and calculations were applied.

	Temperature	**Permittivity**	**Conductivity**
Nominal Head TSL parameters	22.0 °C	41.9	0.89 mho/m
Measured Head TSL parameters	(22.0 ± 0.2) °C	42.5 ± 6 %	0.91 mho/m ± 6 %
Head TSL temperature change during test	< 0.5 °C	----	----

SAR result with Head TSL

SAR averaged over 1 cm³ (1 g) of Head TSL	Condition	
SAR measured	250 mW input power	2.17 W/kg
SAR for nominal Head TSL parameters	normalized to 1W	**8.56 W/kg ± 17.0 % (k=2)**

SAR averaged over 10 cm³ (10 g) of Head TSL	condition	
SAR measured	250 mW input power	1.42 W/kg
SAR for nominal Head TSL parameters	normalized to 1W	**5.61 W/kg ± 16.5 % (k=2)**

Appendix (Additional assessments outside the scope of SCS 0108)

Antenna Parameters with Head TSL

Impedance, transformed to feed point	53.3 Ω + 0.1 jΩ
Return Loss	- 29.9 dB

General Antenna Parameters and Design

Electrical Delay (one direction)	1.033 ns

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

Date: 21.08.2023

Test Laboratory: SPEAG, Zurich, Switzerland

DUT: Dipole 750 MHz; Type: D750V3; Serial: D750V3 - SN:1013

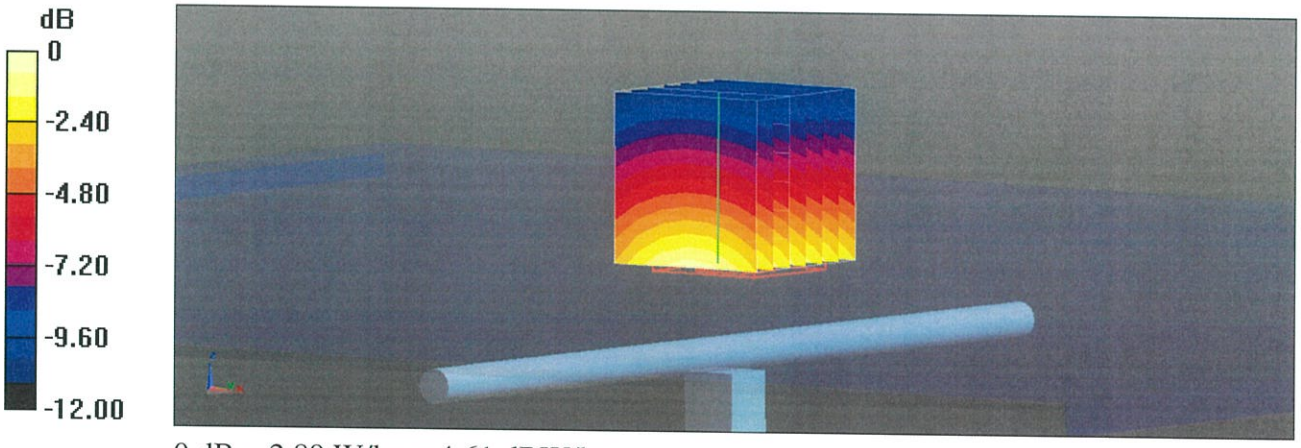
Communication System: UID 0 - CW; Frequency: 750 MHz
Medium parameters used: f = 750 MHz; σ = 0.91 S/m; ε_r = 42.5; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2011)

DASY52 Configuration:

- Probe: EX3DV4 - SN7349; ConvF(10.11, 10.11, 10.11) @ 750 MHz; Calibrated: 10.01.2023
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn601; Calibrated: 19.12.2022
- Phantom: Flat Phantom 4.9 (front); Type: QD 00L P49 AA; Serial: 1001
- DASY52 52.10.4(1535); SEMCAD X 14.6.14(7501)

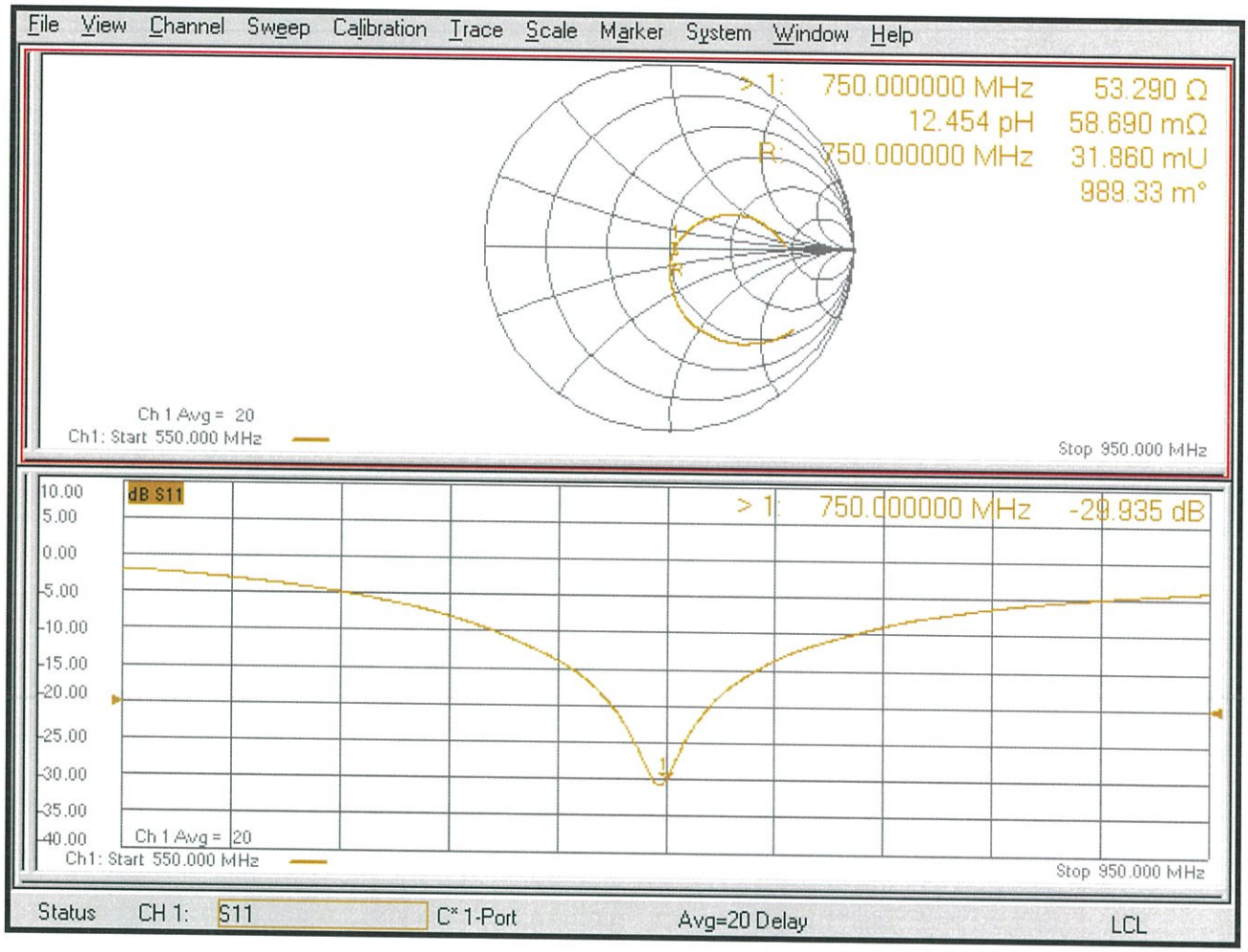
Dipole Calibration for Head Tissue/Pin=250 mW, d=15mm/Zoom Scan (7x7x7)/Cube 0:

Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 59.70 V/m; Power Drift = -0.00 dB
Peak SAR (extrapolated) = 3.29 W/kg
SAR(1 g) = 2.17 W/kg; SAR(10 g) = 1.42 W/kg
Smallest distance from peaks to all points 3 dB below = 17.9 mm
Ratio of SAR at M2 to SAR at M1 = 65.6%
Maximum value of SAR (measured) = 2.89 W/kg



0 dB = 2.89 W/kg = 4.61 dBW/kg

Impedance Measurement Plot for Head TSL



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Zeughausstrasse 43, 8004 Zurich, Switzerland

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

Accreditation No.: SCS 0108

Client **B.V. ADT**
Taoyuan City

Certificate No. **D835V2-4d121_Aug23**

CALIBRATION CERTIFICATE

Object: D835V2 - SN:4d121

Calibration procedure(s): QA CAL-05.v12
Calibration Procedure for SAR Validation Sources between 0.7-3 GHz

Calibration date: August 21, 2023

This calibration certificate documents the traceability to national standards, which realize the physical units of measurements (SI).
The measurements and the uncertainties with confidence probability are given on the following pages and are part of the certificate.

All calibrations have been conducted in the closed laboratory facility: environment temperature (22 ± 3)°C and humidity < 70%.

Calibration Equipment used (M&TE critical for calibration)

Primary Standards	ID #	Cal Date (Certificate No.)	Scheduled Calibration
Power meter NRP2	SN: 104778	30-Mar-23 (No. 217-03804/03805)	Mar-24
Power sensor NRP-Z91	SN: 103244	30-Mar-23 (No. 217-03804)	Mar-24
Power sensor NRP-Z91	SN: 103245	30-Mar-23 (No. 217-03805)	Mar-24
Reference 20 dB Attenuator	SN: BH9394 (20k)	30-Mar-23 (No. 217-03809)	Mar-24
Type-N mismatch combination	SN: 310982 / 06327	30-Mar-23 (No. 217-03810)	Mar-24
Reference Probe EX3DV4	SN: 7349	10-Jan-23 (No. EX3-7349_Jan23)	Jan-24
DAE4	SN: 601	19-Dec-22 (No. DAE4-601_Dec22)	Dec-23

Secondary Standards	ID #	Check Date (in house)	Scheduled Check
Power meter E4419B	SN: GB39512475	30-Oct-14 (in house check Oct-22)	In house check: Oct-24
Power sensor HP 8481A	SN: US37292783	07-Oct-15 (in house check Oct-22)	In house check: Oct-24
Power sensor HP 8481A	SN: MY41093315	07-Oct-15 (in house check Oct-22)	In house check: Oct-24
RF generator R&S SMT-06	SN: 100972	15-Jun-15 (in house check Oct-22)	In house check: Oct-24
Network Analyzer Agilent E8358A	SN: US41080477	31-Mar-14 (in house check Oct-22)	In house check: Oct-24

	Name	Function	Signature
Calibrated by:	Michael Weber	Laboratory Technician	
Approved by:	Sven Kühn	Technical Manager	

Issued: August 22, 2023

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.
b) KDB 865664, "SAR Measurement Requirements for 100 MHz to 6 GHz"

Additional Documentation:

c) 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 source is mounted in a touch configuration below the center marking of the flat phantom.
- *Return Loss:* This parameter is measured with the source positioned under the liquid filled phantom (as described in the measurement condition clause). 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 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%.

Measurement Conditions

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

DASY Version	DASY52	V52.10.4
Extrapolation	Advanced Extrapolation	
Phantom	Modular Flat Phantom	
Distance Dipole Center - TSL	15 mm	with Spacer
Zoom Scan Resolution	dx, dy, dz = 5 mm	
Frequency	835 MHz ± 1 MHz	

Head TSL parameters

The following parameters and calculations were applied.

	Temperature	**Permittivity**	**Conductivity**
Nominal Head TSL parameters	22.0 °C	41.5	0.90 mho/m
Measured Head TSL parameters	(22.0 ± 0.2) °C	42.3 ± 6 %	0.94 mho/m ± 6 %
Head TSL temperature change during test	< 0.5 °C	----	----

SAR result with Head TSL

SAR averaged over 1 cm³ (1 g) of Head TSL	Condition	
SAR measured	250 mW input power	2.50 W/kg
SAR for nominal Head TSL parameters	normalized to 1W	**9.72 W/kg ± 17.0 % (k=2)**

SAR averaged over 10 cm³ (10 g) of Head TSL	condition	
SAR measured	250 mW input power	1.62 W/kg
SAR for nominal Head TSL parameters	normalized to 1W	**6.32 W/kg ± 16.5 % (k=2)**

Appendix (Additional assessments outside the scope of SCS 0108)

Antenna Parameters with Head TSL

Impedance, transformed to feed point	50.1 Ω - 2.0 jΩ
Return Loss	- 34.2 dB

General Antenna Parameters and Design

Electrical Delay (one direction)	1.394 ns

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

Date: 21.08.2023

Test Laboratory: SPEAG, Zurich, Switzerland

DUT: Dipole 835 MHz; Type: D835V2; Serial: D835V2 - SN:4d121

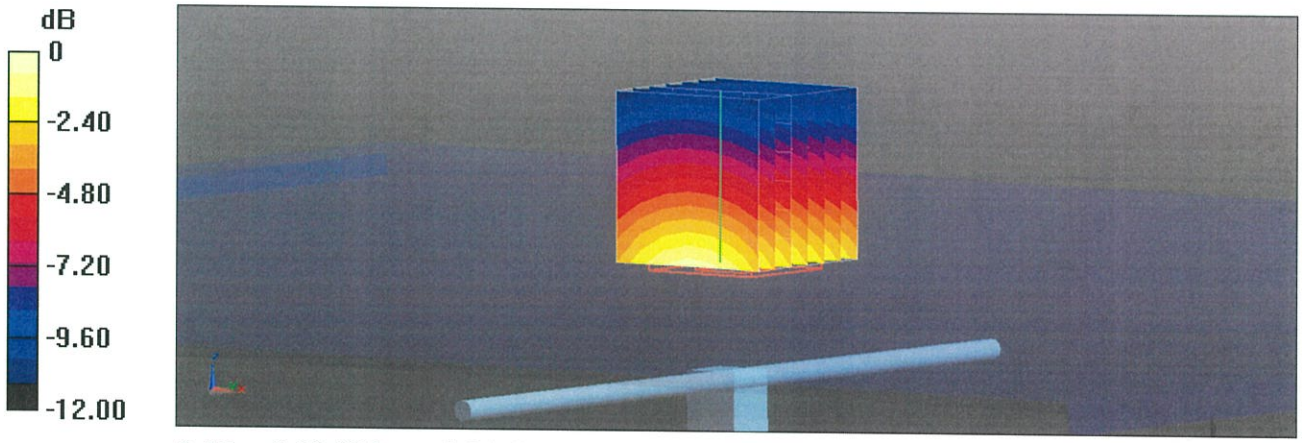
Communication System: UID 0 - CW; Frequency: 835 MHz
Medium parameters used: f = 835 MHz; σ = 0.94 S/m; ε_r = 42.3; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2011)

DASY52 Configuration:

- Probe: EX3DV4 - SN7349; ConvF(9.69, 9.69, 9.69) @ 835 MHz; Calibrated: 10.01.2023
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn601; Calibrated: 19.12.2022
- Phantom: Flat Phantom 4.9 (front); Type: QD 00L P49 AA; Serial: 1001
- DASY52 52.10.4(1535); SEMCAD X 14.6.14(7501)

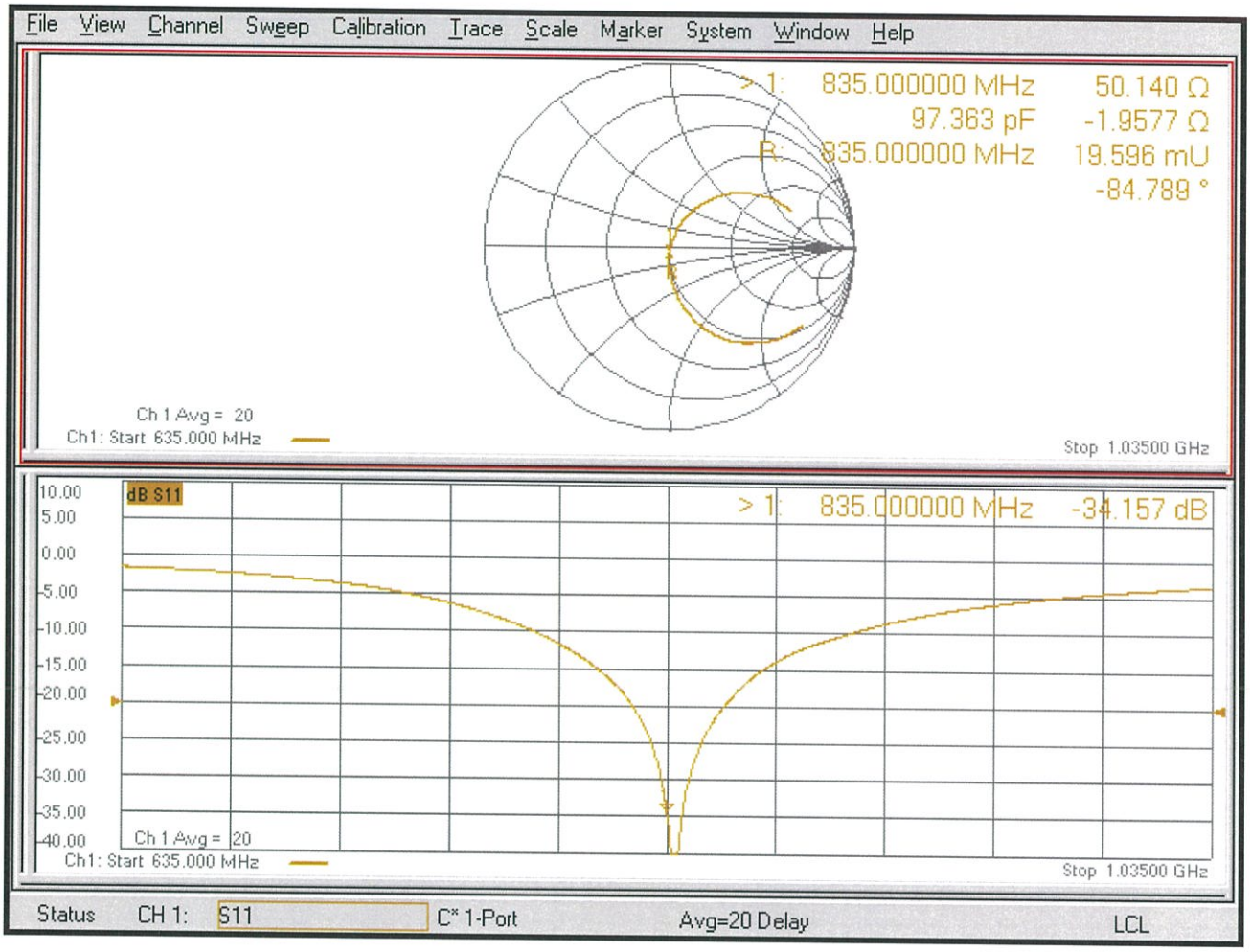
Dipole Calibration for Head Tissue/Pin=250 mW, d=15mm/Zoom Scan (7x7x7)/Cube 0:

Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 63.83 V/m; Power Drift = -0.00 dB
Peak SAR (extrapolated) = 3.72 W/kg
SAR(1 g) = 2.50 W/kg; SAR(10 g) = 1.62 W/kg
Smallest distance from peaks to all points 3 dB below = 16.8 mm
Ratio of SAR at M2 to SAR at M1 = 66.5%
Maximum value of SAR (measured) = 3.32 W/kg



0 dB = 3.32 W/kg = 5.21 dBW/kg

Impedance Measurement Plot for Head TSL



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Zeughausstrasse 43, 8004 Zurich, Switzerland

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

Accreditation No.: SCS 0108

Client B.V. ADT
Taoyuan City

Certificate No. D1750V2-1055_Sep23

CALIBRATION CERTIFICATE

Object D1750V2 - SN:1055

Calibration procedure(s) QA CAL-05.v12
Calibration Procedure for SAR Validation Sources between 0.7-3 GHz

Calibration date: September 21, 2023

This calibration certificate documents the traceability to national standards, which realize the physical units of measurements (SI).
The measurements and the uncertainties with confidence probability are given on the following pages and are part of the certificate.

All calibrations have been conducted in the closed laboratory facility: environment temperature (22 ± 3)°C and humidity < 70%.

Calibration Equipment used (M&TE critical for calibration)

Primary Standards	ID #	Cal Date (Certificate No.)	Scheduled Calibration
Power meter NRP2	SN: 104778	30-Mar-23 (No. 217-03804/03805)	Mar-24
Power sensor NRP-Z91	SN: 103244	30-Mar-23 (No. 217-03804)	Mar-24
Power sensor NRP-Z91	SN: 103245	30-Mar-23 (No. 217-03805)	Mar-24
Reference 20 dB Attenuator	SN: BH9394 (20k)	30-Mar-23 (No. 217-03809)	Mar-24
Type-N mismatch combination	SN: 310982 / 06327	30-Mar-23 (No. 217-03810)	Mar-24
Reference Probe EX3DV4	SN: 7349	10-Jan-23 (No. EX3-7349_Jan23)	Jan-24
DAE4	SN: 601	19-Dec-22 (No. DAE4-601_Dec22)	Dec-23

Secondary Standards	ID #	Check Date (in house)	Scheduled Check
Power meter E4419B	SN: GB39512475	30-Oct-14 (in house check Oct-22)	In house check: Oct-24
Power sensor HP 8481A	SN: US37292783	07-Oct-15 (in house check Oct-22)	In house check: Oct-24
Power sensor HP 8481A	SN: MY41093315	07-Oct-15 (in house check Oct-22)	In house check: Oct-24
RF generator R&S SMT-06	SN: 100972	15-Jun-15 (in house check Oct-22)	In house check: Oct-24
Network Analyzer Agilent E8358A	SN: US41080477	31-Mar-14 (in house check Oct-22)	In house check: Oct-24

	Name	Function	Signature
Calibrated by:	Paulo Pina	Laboratory Technician	
Approved by:	Sven Kühn	Technical Manager	

Issued: September 21, 2023

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.
b) KDB 865664, "SAR Measurement Requirements for 100 MHz to 6 GHz"

Additional Documentation:

c) 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 source is mounted in a touch configuration below the center marking of the flat phantom.
- *Return Loss:* This parameter is measured with the source positioned under the liquid filled phantom (as described in the measurement condition clause). 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 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%.

Measurement Conditions

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

DASY Version	DASY52	V52.10.4
Extrapolation	Advanced Extrapolation	
Phantom	Modular Flat Phantom	
Distance Dipole Center - TSL	10 mm	with Spacer
Zoom Scan Resolution	dx, dy, dz = 5 mm	
Frequency	1750 MHz ± 1 MHz	

Head TSL parameters

The following parameters and calculations were applied.

	Temperature	**Permittivity**	**Conductivity**
Nominal Head TSL parameters	22.0 °C	40.1	1.37 mho/m
Measured Head TSL parameters	(22.0 ± 0.2) °C	40.3 ± 6 %	1.36 mho/m ± 6 %
Head TSL temperature change during test	< 0.5 °C	----	----

SAR result with Head TSL

SAR averaged over 1 cm^3 (1 g) of Head TSL	Condition	
SAR measured	250 mW input power	9.02 W/kg
SAR for nominal Head TSL parameters	normalized to 1W	**36.3 W/kg ± 17.0 % (k=2)**

SAR averaged over 10 cm^3 (10 g) of Head TSL	condition	
SAR measured	250 mW input power	4.77 W/kg
SAR for nominal Head TSL parameters	normalized to 1W	**19.2 W/kg ± 16.5 % (k=2)**

Appendix (Additional assessments outside the scope of SCS 0108)

Antenna Parameters with Head TSL

Impedance, transformed to feed point	49.5 Ω - 0.6 jΩ
Return Loss	- 42.6 dB

General Antenna Parameters and Design

Electrical Delay (one direction)	1.228 ns

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

DASY5 Validation Report for Head TSL

Date: 21.09.2023

Test Laboratory: SPEAG, Zurich, Switzerland

DUT: Dipole 1750 MHz; Type: D1750V2; Serial: D1750V2 - SN:1055

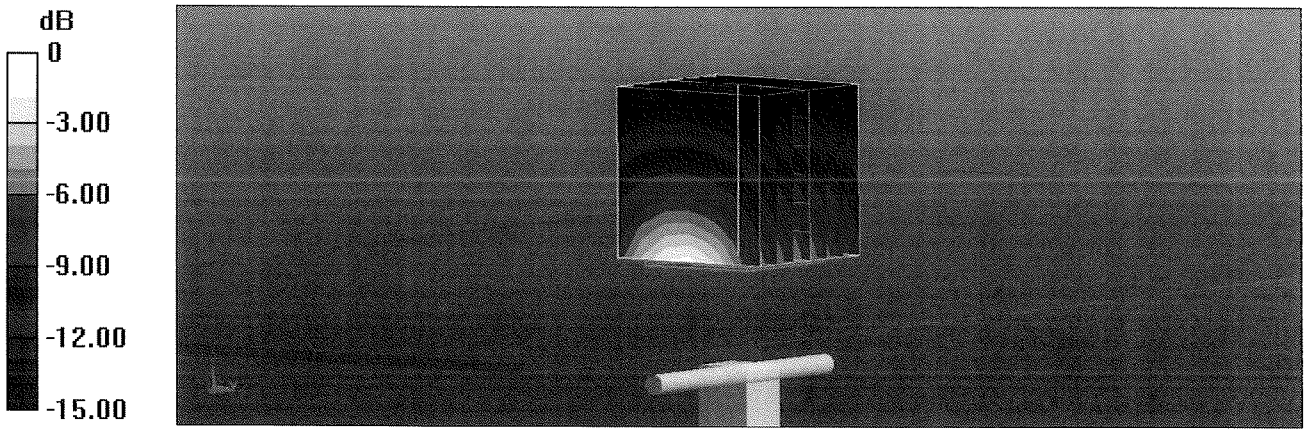
Communication System: UID 0 - CW; Frequency: 1750 MHz
Medium parameters used: f = 1750 MHz; σ = 1.36 S/m; ε_r = 40.3; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2011)

DASY52 Configuration:

- Probe: EX3DV4 - SN7349; ConvF(8.67, 8.67, 8.67) @ 1750 MHz; Calibrated: 10.01.2023
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn601; Calibrated: 19.12.2022
- Phantom: Flat Phantom 5.0 (front); Type: QD000P50AA; Serial: 1001
- DASY52 52.10.4(1535); SEMCAD X 14.6.14(7501)

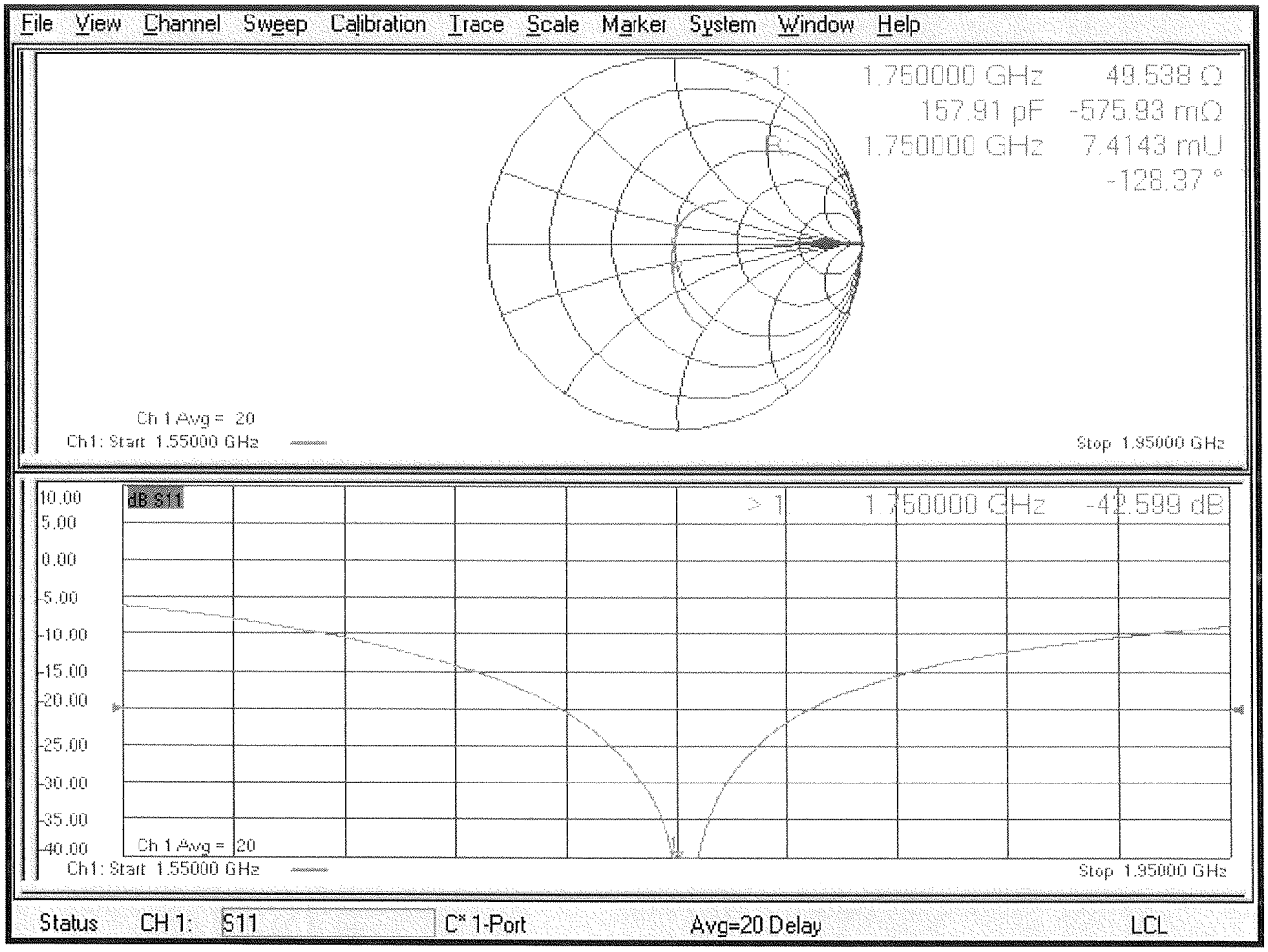
Dipole Calibration for Head Tissue/Pin=250 mW, d=10mm/Zoom Scan (7x7x7)/Cube 0:

Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 105.8 V/m; Power Drift = 0.00 dB
Peak SAR (extrapolated) = 16.5 W/kg
SAR(1 g) = 9.02 W/kg; SAR(10 g) = 4.77 W/kg
Smallest distance from peaks to all points 3 dB below = 10 mm
Ratio of SAR at M2 to SAR at M1 = 55.4%
Maximum value of SAR (measured) = 13.6 W/kg



0 dB = 13.6 W/kg = 11.33 dBW/kg

Impedance Measurement Plot for Head TSL



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S Swiss Calibration Service

Accredited by the Swiss Accreditation Service (SAS)
Accreditation No.: SCS 0108

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

Client **B.V. ADT**
Taoyuan City

Certificate No. **D1900V2-5d036_Feb24**

CALIBRATION CERTIFICATE

Object D1900V2 - SN:5d036

Calibration procedure(s) QA CAL-05.v12
Calibration Procedure for SAR Validation Sources between 0.7-3 GHz

Calibration date: February 19, 2024

This calibration certificate documents the traceability to national standards, which realize the physical units of measurements (SI).
The measurements and the uncertainties with confidence probability are given on the following pages and are part of the certificate.

All calibrations have been conducted in the closed laboratory facility: environment temperature (22 ± 3)°C and humidity < 70%.

Calibration Equipment used (M&TE critical for calibration)

Primary Standards	ID #	Cal Date (Certificate No.)	Scheduled Calibration
Power meter NRP2	SN: 104778	30-Mar-23 (No. 217-03804/03805)	Mar-24
Power sensor NRP-Z91	SN: 103244	30-Mar-23 (No. 217-03804)	Mar-24
Power sensor NRP-Z91	SN: 103245	30-Mar-23 (No. 217-03805)	Mar-24
Reference 20 dB Attenuator	SN: BH9394 (20k)	30-Mar-23 (No. 217-03809)	Mar-24
Type-N mismatch combination	SN: 310982 / 06327	30-Mar-23 (No. 217-03810)	Mar-24
Reference Probe EX3DV4	SN: 7349	03-Nov-23 (No. EX3-7349_Nov23)	Nov-24
DAE4	SN: 601	30-Jan-24 (No. DAE4-601_Jan24)	Jan-25

Secondary Standards	ID #	Check Date (in house)	Scheduled Check
Power meter E4419B	SN: GB39512475	30-Oct-14 (in house check Oct-22)	In house check: Oct-24
Power sensor HP 8481A	SN: US37292783	07-Oct-15 (in house check Oct-22)	In house check: Oct-24
Power sensor HP 8481A	SN: MY41093315	07-Oct-15 (in house check Oct-22)	In house check: Oct-24
RF generator R&S SMT-06	SN: 100972	15-Jun-15 (in house check Oct-22)	In house check: Oct-24
Network Analyzer Agilent E8358A	SN: US41080477	31-Mar-14 (in house check Oct-22)	In house check: Oct-24

	Name	Function	Signature
Calibrated by:	Paulo Pina	Laboratory Technician	
Approved by:	Sven Kühn	Technical Manager	

Issued: February 20, 2024

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.
b) KDB 865664, "SAR Measurement Requirements for 100 MHz to 6 GHz"

Additional Documentation:

c) 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 source is mounted in a touch configuration below the center marking of the flat phantom.
- *Return Loss:* This parameter is measured with the source positioned under the liquid filled phantom (as described in the measurement condition clause). 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 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%.

Measurement Conditions

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

DASY Version	DASY52	V52.10.4
Extrapolation	Advanced Extrapolation	
Phantom	Modular Flat Phantom	
Distance Dipole Center - TSL	10 mm	with Spacer
Zoom Scan Resolution	dx, dy, dz = 5 mm	
Frequency	1900 MHz ± 1 MHz	

Head TSL parameters

The following parameters and calculations were applied.

	Temperature	**Permittivity**	**Conductivity**
Nominal Head TSL parameters	22.0 °C	40.0	1.40 mho/m
Measured Head TSL parameters	(22.0 ± 0.2) °C	41.4 ± 6 %	1.40 mho/m ± 6 %
Head TSL temperature change during test	< 0.5 °C	----	----

SAR result with Head TSL

SAR averaged over 1 cm^3 (1 g) of Head TSL	Condition	
SAR measured	250 mW input power	10.0 W/kg
SAR for nominal Head TSL parameters	normalized to 1W	**40.3 W/kg ± 17.0 % (k=2)**

SAR averaged over 10 cm^3 (10 g) of Head TSL	condition	
SAR measured	250 mW input power	5.22 W/kg
SAR for nominal Head TSL parameters	normalized to 1W	**21.0 W/kg ± 16.5 % (k=2)**

Appendix (Additional assessments outside the scope of SCS 0108)

Antenna Parameters with Head TSL

Impedance, transformed to feed point	50.3 Ω + 6.3 jΩ
Return Loss	- 24.1 dB

General Antenna Parameters and Design

Electrical Delay (one direction)	1.195 ns

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