

February 22, 2024

UID	Rev	Communication System Name	Group	PAR (dB)	Unc ^E k = 3
0609	AAD	IEEE 802.11ac WiFi (20 MHz, MCS2, 90pc duty cycle)	WLAN	8.57	±9.6
0610	AAD	IEEE 802.11 ac WiFi (20 MHz, MCS3, 90pc duty cycle)	WLAN	8.78	±9.6
0611	AAD	IEEE 802.11ac WIFI (20 MHz, MCS4, 90pc duty cycle)	WLAN	8.70	±9.6
0612	AAD	IEEE 802.11ac WiFi (20 MHz, MCS5, 90pc duty cycle)	WLAN	8.77	±9.6
0613	AAD	IEEE 802.11ac WiFi (20 MHz, MCS6, 90pc duty cycle)	WLAN	8.94	±9.6
0614	AAD	IEEE 802.11ac WiFi (20 MHz, MCS7, 90pc duly cycle)	WLAN	8.59	±9.6
0615	AAD	IEEE 802.11ac WiFi (20 MHz, MCS8, 90pc duty cycle)	WLAN	8.82	±9.6
0616	AAD	IEEE 802.11ac WiFi (40 MHz, MCSO, 90pc duty cycle)	WLAN	8.82	±9.6
0617	AAD	IEEE 802.11ac WiFi (40 MHz, MCS1, 90pc duty cycle)	WLAN	8.81	±9.6
0618	AAD	IEEE 802.11ac WiFi (40 MHz, MCS2, 90pc duty cycle)	WLAN	8.58	±9.6
10619	AAD	IEEE 802.11ac WiFi (40 MHz, MCS3, 90pc duty cycle)	WLAN	8.86	±9.6
	AAD	IEEE 802.11ac WiFI (40 MHz, MCS4, 90pc duty cycle)	WLAN	8.87	±9.6
10620			WLAN	8.77	19.6
10621	AAD	IEEE 802.11ac WiFi (40 MHz, MCS5, 90pc duty cycle)	WLAN	8.68	+9.6
10622	AAD	IEEE 802.11ac WiFi (40 MHz, MCS6, 90pc duty cycle)	WLAN	8.82	±9.6
10623	AAD	IEEE 802.11ac WiFi (40 MHz, MCS7, 90pc duty cycle)	WLAN	8.96	±9.6
10624	AAD	IEEE 802.11ac WIFi (40 MHz, MCS8, 90pc duty cycle)	WLAN	8.96	±9.6
10625	AAD	IEEE 802.11ac WiFi (40 MHz, MCS9, 90pc duty cycle)	and the first of the local division of the l	8.83	±9.6
10626	AAD	IEEE 802.11ac WiFi (80 MHz, MCS0, 90pc duly cycle)	WLAN	119.32	
10627	AAD	IEEE 802.11ac WiFi (80 MHz, MCS1, 90pc duty cycle)	WLAN	8.88	±9.6
10628	AAD	IEEE 802.11ac WiFi (80 MHz, MCS2, 90pc duly cycle)	WLAN	8.71	19.6
10629	AAD	IEEE 802.11ac WiFi (80 MHz, MCS3, 90pc duly cycle)	WLAN	8.85	±9.6
10630	AAD	IEEE 802.11ac WiFi (80 MHz, MCS4, 90pc duty cycle)	WLAN	8.72	±9.6
10631	AAD	IEEE 802.11ac WiFi (80 MHz, MCS5, 90pc duly cycle)	WLAN	8.81	±9.6
10632	AAD	IEEE 802.11ac WiFi (80 MHz, MCS6, 90pc duty cycle)	WLAN	8.74	±9.6
10633	AAD	IEEE 802.11 ac WiFi (80 MHz, MCS7, 90pc duty cycle)	WLAN	8.83	19.6
10634	AAD	IEEE 802.11 ac WiFi (80 MHz, MCS8, 90pc duty cycle)	WLAN	8.80	±9.6
10635	AAD	IEEE 802.11ac WiFi (80 MHz, MCS9, 90pc duty cycle)	WLAN	8.81	±9.6
10636	AAE	IEEE 802,11ac WiFI (160 MHz, MCS0, 90pc duty cycle)	WLAN	8.83	±9.6
10637	AAE	IEEE 802.11ac WiFi (160 MHz, MCS1, 90pc duty cycle)	WLAN	8.79	±9.6
10638	AAE	IEEE 802.11ac WiFi (160 MHz, MCS2, 90pc duty cycle)	WLAN	8.86	±9.6
10639	AAE	IEEE 802.11ac WiFi (160 MHz, MCS3, 90pc duty cycle)	WLAN	8.85	±9.6
10640	AAE	IEEE 802.11ac WIFI (160 MHz, MCS4, 90pc duty cycle)	WLAN	8.98	±9.6
10641	AAE	IEEE 802.11ac WiFi (160 MHz, MCS5, 90pc duty cycle)	WLAN	9.06	±9.6
10642	AAE	IEEE 802.11ac WiFi (160 MHz, MCS6, 90pc duty cycle)	WLAN	9.06	±9.6
10643	AAE	IEEE 802.11ac WiFi (160 MHz, MCS7, 90pc duty cycle)	WLAN	8.89	±9.6
10644	AAE	IEEE 802.11ac WIFI (160 MHz, MCS), sope duty cycle)	WLAN	9.05	±9.6
10645	AAE	IEEE 802.11ac WiFi (160 MHz, MCS9, 90pc duty cycle)	WLAN	9.11	±9.6
	AAL	LTE-TDD (SC-FDMA, 1 RB, 5MHz, QPSK, UL Subframe=2,7)	LTE-TDD	11.96	±9.6
10646	AAG	LTE-TDD (SC-FDMA, 1 RB, 20 MHz, QPSK, UL Subframe=2,7)	LTE-TOD	11.96	±9.6
10647			CDMA2000	3.45	±9.6
10648	AAA	CDMA2000 (1x Advanced)	LTE-TDD	6.91	±9.6
10652	1 1 1 1 1 1 A	LTE-TDD (OFDMA, 5 MHz, E-TM 3.1, Clipping 44%)	and the second se	7.42	
10653		LTE-TDD (OFDMA, 10 MHz, E-TM 3.1, Clipping 44%)	LTE-TDD		±9.6
10654		LTE-TDD (OFDMA, 15 MHz, E-TM 3.1, Clipping 44%)	LTE-TDD	6.96	±9.6
10655	-	LTE-TDD (OFDMA, 20 MHz, E-TM 3.1, Clipping 44%)	LTE-TDD	7.21	±9.6
10658	_	Pulse Waveform (200Hz, 10%)	Test	10.00	±9.6
10659	-	Pulse Waveform (200Hz, 20%)	Test	6.99	±9.6
10660	_	Pulse Waveform (200Hz, 40%)	Test	3.98	±9.6
10661	AAB	Pulse Waveform (200Hz, 60%)	Test	2.22	±9.6
10662	AAB	Pulse Waveform (200Hz, 80%)	Test	0.97	±9.6
10670	AAA	Bluetooth Low Energy	Bluetooth	2.19	±9.8
10671	AAC	IEEE 802.11ax (20 MHz, MCS0, 90pc duty cycle)	WLAN	9.09	±9.6
10672	AAC	IEEE 802.11ax (20 MHz, MCS1, 90pc duty cycle)	WLAN	8.57	±9.6
10673	the second se	IEEE 802.11ax (20 MHz, MCS2, 90pc duty cycle)	WLAN	8.78	±9.6
10674	_	IEEE 802.11ax (20 MHz, MCS3, 90pc duty cycle)	WLAN	8.74	±9.6
10675		IEEE 802.11ax (20 MHz, MCS4, 90pc duty cycle)	WLAN	8.90	±9.6
10676		(EEE 802.11ax (20 MHz, MCS5, 90pc duty cycle)	WLAN	8.77	±9.0
10677	-	IEEE 802.11ax (20 MHz, MCS6, 90pc duty cycle)	WLAN	8.73	±9.6
10678	_	IEEE 802.11ax (20 MHz, MCS7, 90pc duty cycle)	WLAN	8.78	±9.0
10679	_	IEEE 802.11ax (20 MHz, MCS8, 90pc duty cycle)	WLAN	8.89	±9.0
10680	_	IEEE 802.11ax (20 MHz, MCS9, 90pc duty cycle)	WLAN	8.80	±9.6
10680		IEEE 802.11ax (20 MHz, MCS9, 90pc duty cycle)	WLAN	8.62	±9.0
		and the second design of the second and the second design of the second	WLAN	8.83	±9.0
10682		IEEE 802.11ax (20 MHz, MCS11, 90pc duty cycle)	WLAN	8.42	±9.0
10683	_	IEEE 802.11ax (20 MHz, MCS0, 99pc duty cycle)			
10684	- A A A A A A A A A A A A A A A A A A A	IEEE 802.11ax (20 MHz, MCS1, 99pc duty cycle)	WLAN	8.26	±9.
10685		IEEE 802.11ax (20 MHz, MCS2, 99pc duty cycle)	WLAN	8.33	±9.
10686	AAG	IEEE 802.11ax (20 MHz, MCS3, 99pc duty cycle)	WLAN	8.28	±9.

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UID	Rev	Communication System Name	Group	PAR (dB)	$Unc^{E} k =$
0687	AAC	IEEE 802.11ax (20 MHz, MCS4, 99pc duty cycle)	WLAN	8.45	±9.6
0688	AAC	IEEE 802.11ax (20 MHz, MCS5, 99pc duty cycle)	WLAN	8.29	+9.6
0689	AAC	IEEE 802.11ax (20 MHz, MCS6, 99pc duty cycle)	WLAN	8.55	±9.6
0690	AAC	IEEE 802.11ax (20 MHz, MCS7, 99pc duty cycle)	WLAN	8.29	±9.6
0691	AAC	IEEE 802.11ax (20 MHz, MCS8, 99pc duty cycle)	WLAN	8.25	±9.6
0692	AAC	IEEE 802.11ax (20 MHz, MCS9, 99pc duty cycle)	WLAN	8.29	±9.6
0693	AAC	IEEE 802.11ax (20 MHz, MCS10, 99pc duty cycle)	WLAN	8.25	±9.6
0694	AAC	IEEE 802.11ax (20 MHz, MCS11, 99pc duty cycle)	WLAN	8.57	±9.6
10695	AAC	IEEE 802,11ax (40 MHz, MCS0, 90pc duty cycle)	WLAN	8.78	±9.6
10696	AAC	IEEE 802,11ax (40 MHz, MCS1, 90pc duty cycle)	WLAN	8.91	±9.6
10697	AAC	IEEE 802.11ax (40 MHz, MCS2, 90pc duty cycle)	WLAN	8.61	±9.6
10698	AAG	IEEE 802.11ax (40 MHz, MCS3, 90pc duty cycle)	WLAN	8.89	±9.6
10699	AAC	IEEE 802.11ax (40 MHz, MCS4, 90pc duty cycle)	WLAN	8.82	±9.6
10700	AAC	IEEE 802.11ax (40 MHz, MCS5, 90pc duty cycle)	WLAN	8.73	±9.6
10701	AAC	IEEE 802.11ax (40 MHz, MCS6, 90pc duty cycle)	WLAN	8.86	±9.6
10702	AAC	IEEE 802.11ax (40 MHz, MCS7, 90pc duty cycle)	WLAN	8.70	±9.6
10703	AAC	IEEE 802.11ax (40 MHz, MCS8, 90pc duty cycle)	WLAN	8.82	±9.6
10704	AAC	IEEE 802.11ax (40 MHz, MCS9, 90pc duty cycle)	WLAN	8.56	±9.6
10705	AAC	IEEE 802.11ax (40 MHz, MCS10, 90pc duty cycle)	WLAN	8.69	±9.6
10705	AAC	IEEE 802.11ax (40 MHz, MCS10, 90pc duty cycle)	WLAN	8.66	±9.6
10705	AAC	IEEE 802.11ax (40 MHz, MCS0, 99pc duty cycle)	WLAN	8.32	±9.6
10708	AAC	IEEE 802.11ax (40 MHz, MCS1, 99pc duty cycle)	WLAN	8.55	±9.6
10708	AAC	IEEE 802.11ax (40 MHz, MCS1, 99pc duty cycle)	WLAN	8.33	±9.6
10709	AAC		WLAN	8.29	±9.6
10710	AAC	IEEE 802.11ax (40 MHz, MCS3, 99pc duty cycle) IEEE 802.11ax (40 MHz, MCS4, 99pc duty cycle)	WLAN	8.39	19.6
and the second second	AAC		WLAN	8.67	±9.6
10712	AAC	IEEE 802.11ax (40 MHz, MCS5, 99pc duty cycle)	WLAN	8.33	±9.6
10713	10 C 10 C 10 C	IEEE 802.11ax (40 MHz, MCS6, 99pc duty cycle)	WLAN	8.26	±9.6
10714	AAC	IEEE 802.11ax (40 MHz, MCS7, 99pc duty cycle)	WLAN	8.45	±9.6
10715	AAC	IEEE 802.11ax (40 MHz, MCS8, 99pc duty cycle)	WLAN	8.30	±9.6
10716	AAC	IEEE 802.11ax (40 MHz, MCS9, 99pc duty cycle)		8.48	±9.6
10717	AAC	IEEE 802.11ax (40 MHz, MCS10, 99pc duty cycle)	WLAN WLAN	8.24	±9.6
10718	AAC	IEEE 802.11ax (40 MHz, MCS11, 99pc duty cycle)	WLAN	8.81	-
10719	AAC	IEEE 802.11ax (80 MHz, MCS0, 90pc duty cycle)	and the second se	8.87	±9.6
10720	-	IEEE 802.11ax (80 MHz, MCS1, 90pc duty cycle)	WLAN		
10721	AAC	IEEE 802.11ax (80 MHz, MCS2, 90pc duty cycle)	WLAN	8.76	±9.6
10722	-	IEEE 802.11ax (80 MHz, MCS3, 90pc duty cycle)	WLAN	8.55	±9.6
10723	AAC	IEEE 802.11ax (80 MHz, MCS4, 90pc duty cycle)	WLAN	8.70	±9.6
10724		IEEE 802.11ax (80 MHz, MCS5, 90pc duty cycle)	WLAN	8.90	±9.6
10725	and the second se	IEEE 802.11ax (80 MHz, MCS6, 90pc duty cycle)	WLAN	8.74	±9.6
10726	-	IEEE 802.11ax (80 MHz, MCS7, 90pc duty cycle)	WLAN	8.72	±9.6
10727	and the second second	IEEE 802.11ax (80 MHz, MCS8, 90pc duty cycle)	WLAN	8.66	±9.6
10728	the second se	IEEE 802.11ax (80 MHz, MCS9, 90pc duty cycle)	WLAN	8.65	±9,6
10729	and interactions	IEEE 802.11ax (80 MHz, MCS10, 90pc duty cycle)	WLAN	8.64	±9.6
10730	and the second second	IEEE 802.11ax (80 MHz, MCS11, 90pc duty cycle)	WLAN	8.67	±9.6
10731	AAC	IEEE 802.11ax (80 MHz, MCS0, 99pc duty cycle)	WLAN	8.42	±9.6
10732	-	IEEE 802.11ax (80 MHz, MCS1, 99pc duty cycle)	WLAN	8.46	±9.6
10733		IEEE 802.11ax (80 MHz, MCS2, 99pc duty cycle)	WLAN	8.40	±9.6
10734	-	IEEE 802.11ax (80 MHz, MCS3, 99pc duty cycle)	WLAN	8.25	±9.6
10735	AAC	IEEE 802.11ax (80 MHz, MCS4. 99pc duty cycle)	WLAN	8.33	±9.6
10736		IEEE 802.11ax (80 MHz, MCS5, 99pc duty cycle)	WLAN	8.27	±9.6
10737	and the second se	IEEE 802.11ax (80 MHz, MCS6, 99pc duty cycle)	WLAN	8.36	±9.6
10738		IEEE 802.11ax (80 MHz, MCS7, 99pc duty cycle)	WLAN	8.42	19.6
10739		IEEE 802.11ax (80 MHz, MCS8, 99pc duty cycle)	WLAN	8.29	±9.6
10740	-	IEEE 802.11ax (80 MHz, MCS9, 99pc duty cycle)	WLAN	8.48	±9.6
10741		IEEE 802.11ax (80 MHz, MCS10, 99pc duty cycle)	WLAN	8.40	±9.0
10742		IEEE 802.11ax (80 MHz, MCS11, 99pc duty cycle)	WLAN	8.43	±9.0
10743		IEEE 802.11ax (160 MHz, MCS0, 90pc duty cycle)	WLAN	8.94	±9.
10744	_	IEEE 802.11ax (160 MHz, MCS1, 90pc duty cycle)	WLAN	9.16	±9.6
10745		IEEE 802.11ax (160 MHz, MCS2, 90pc duty cycle)	WLAN	8.93	±9.6
10746	AAC	IEEE 802.11ax (160 MHz, MCS3, 90pc duty cycle)	WLAN	9.11	±9.6
10747	AAC	IEEE 802.11ax (160 MHz, MCS4, 90pc duty cycle)	WLAN	9.04	±9.6
10748	AAC	IEEE 802.11ax (160 MHz, MCS5, 90pc duty cycle)	WLAN	8.93	±9.8
10749	AAC	IEEE 802.11ax (160 MHz, MCS6, 90pc duty cycle)	WLAN	8.90	±9.6
10750	AAC	IEEE 802.11ax (160 MHz, MCS7, 90pc duty cycle)	WLAN	8.79	±9.6
10751	AAC	IEEE 802.11ax (160 MHz, MCS8, 90pc duty cycle)	WLAN	8.82	±9.
10752	AAC	and the second	WLAN	8.81	±9.

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UID	Rev	Communication System Name	Group	PAR (dB)	Unc ^E k =:
10753	AAC	IEEE 802.11ax (160 MHz, MCS10, 90pc duty cycle)	WLAN	9.00	±9.6
0754	AAC	IEEE 802.11ax (160 MHz, MCS11, 90pc duty cycle)	WLAN	8.94	±9.6
0755	AAC	IEEE 802.11ax (160 MHz, MCS0, 99pc duty cycle)	WLAN	8.64	19.6
0756	AAC	IEEE 802.11ax (160 MHz, MCS1, 99pc duty cycle)	WLAN	8.77	±9.6
0757	AAC	IEEE 802.11ax (160 MHz, MCS2, 99pc duty cycle)	WLAN	8.77	±9.6
0758	AAC	IEEE 802.11ax (160 MHz, MCS3, 99pc duty cycle)	WLAN	8.69	±9.6
0759	AAC	IEEE 802.11ax (160 MHz, MCS4, 99pc duty cycle)	WLAN	8.58	±9.6
0760	AAC	IEEE 802.11ax (160 MHz, MCS5, 99pc duty cycle)	WLAN	8.49	±9.6
0761	AAC	IEEE 802.11ax (160 MHz, MCS6, 99pc duty cycle)	WLAN	8.58	±9.5
0762	AAC	IEEE 802.11ax (160 MHz, MCS7, 99pc duty cycle)	WLAN	8.49	±9.6
0763	AAC	IEEE 802.11ax (160 MHz, MCS8, 99pc duty cycle)	WLAN	8.53	±9.6
0764	AAC	IEEE 802.11ax (160 MHz, MCS9, 99pc duty cycle)	WLAN	8.54	±9.6
0765	AAC	IEEE 802.11ax (160 MHz, MCS10, 99pc duty cycle)	WLAN	8.54	±9.6
0766	AAC	IEEE 802.11ax (160 MHz, MCS11, 99pc duty cycle)	WLAN	8.51	±9.6
0767	AAG	5G NR (CP-OFDM, 1 RB, 5MHz, QPSK, 15kHz)	5G NR FR1 TDD	7.99	±9.6
0768	AAE	5G NR (CP-OFDM, 1 RB, 10 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.01	±9.6
0769	AAD	5G NR (CP-OFDM, 1 RB, 15 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.01	±9.6
0770	AAE	5G NR (CP-OFDM, 1 RB, 20 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.02	±9.6
10771	AAD	5G NR (CP-OFDM, 1 RB, 25 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.02	±9.6
0772	AAE	5G NR (CP-OFDM, 1 RB, 30 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.23	±9.6
0773	AAF	5G NR (CP-OFDM, 1 RB, 40 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.03	19.6
10774	AAE	5G NR (CP-OFDM, 1 RB, 50 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.02	±9.6
10775	AAF	5G NR (CP-OFDM, 50% RB, 5MHz, QPSK, 15kHz)	5G NR FR1 TDD	8.31	±9.6
10776	AAE	5G NR (CP-OFDM, 50% RB, 10 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.30	±9.6
10777	AAC	5G NR (CP-OFDM, 50% RB, 15 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.30	±9.6
10778	AAE	5G NR (CP-OFDM, 50% RB, 20 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.34	±9.6
10779	AAC	5G NR (CP-OFDM, 50% RB, 25 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.42	+9.6
10780	AAE	5G NR (CP-OFDM, 50% RB, 30 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.38	19.6
10781	AAF	5G NR (CP-OFDM, 50% RB, 40 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.38	±9.6
10782	AAE	5G NR (CP-OFDM, 50% RB, 50 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.43	
10783	AAG	5G NR (CP-OFDM, 100% RB, 5 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.31	±9.6
10784	AAE	5G NR (CP-OFDM, 100% RB, 10 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.29	4
10785	AAD	5G NR (CP-OFDM, 100% RB, 15 MHz, QPSK, 15 kHz)		8.40	±9.6
10786	AAE	5G NR (CP-OFDM, 100% RB, 20 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.35	±9.6
10787	AAD	5G NR (CP-OFDM, 100% RB, 25 MHz, QPSK, 15 KHz)	5G NR FR1 TDD 5G NR FR1 TDD		±9.6
10788	AAE	5G NR (CP-OFDM, 100% RB, 30 MHz, QPSK, 15 kHz)		8.44	±9.6
10789	AAF	5G NR (CP-OFDM, 100% RB, 40 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.39	±9.6
10790	AAE	5G NR (CP-OFDM, 100% RB, 50 MHz, QPSK, 15 kHz)	SG NR FR1 TDD	8.37	±9.6
10791	AAG	5G NR (CP-OFDM, 100% ND, 50 MHz, QPSK, 15 Hz)	5G NR FR1 TDD	8.39	±9.6
10792	AAE		5G NR FR1 TDD	7.83	±9.6
10793	AAD	5G NR (CP-OFDM, 1 RB, 10 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	7.92	±9.6
10794	AAE	5G NR (CP-OFDM, 1 RB, 15 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	7.95	±9.6
10795	AAD	5G NR (CP-OFDM, 1 RB, 20 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	7.82	±9.6
10796	AAE	5G NR (CP-OFDM, 1 RB, 25 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	7.84	±9.6
	AAF	5G NR (CP-OFDM, 1 RB, 30 MHz, QPSK, 30 kHz)	5G NB FR1 TDD	7.82	±9.6
10797		5G NR (CP-OFDM, 1 RB, 40 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	8.01	±9.6
10798	AAE	5G NR (CP-OFDM, 1 RB, 50 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	7.89	±9.6
10799	AAF	5G NR (CP-OFDM, 1 RB, 60 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	7.93	±9.6
10801	AAF	5G NR (CP-OFDM, 1 RB, 80 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	7.89	±9.6
10802	AAE	5G NR (CP-OFDM, 1 RB, 90 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	7.87	±9.6
10803	AAF	5G NR (CP-OFDM, 1 RB, 100 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	7.93	±9.6
10805	AAE	5G NR (CP-OFDM, 50% RB, 10 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	8.34	±9.6
10806	AAD	5G NR (CP OFDM, 50% RB, 15 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	8.37	±9.6
10809	AAE	5G NR (CP-OFDM, 50% RB, 30 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	8.34	+9.6
0810	AAF	5G NR (CP-OFDM, 50% RB, 40 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	8.34	±9,6
0812	AAF	5G NR (CP-OFDM, 50% RB, 60 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	8,35	19.6
0817	AAG	5G NR (CP-OFDM, 100% RB, 5 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	8.35	±9.6
0818	AAE	5G NR (CP-OFDM, 100% RB, 10 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	8.34	±9.6
10819	AAD	5G NR (CP-OFDM, 100% RB, 15 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	8.33	±9.6
10820	AAE	5G NR (CP-OFDM, 100% RB, 20 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	8.30	±9.6
10821	AAD	5G NR (CP-OFDM, 100% RB, 25 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	8.41	±9.6
10822	AAE	5G NR (CP-OFDM, 100% RB, 30 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	8.41	±9.6
10823	AAF	5G NR (CP-OFDM, 100% RB, 40 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	8.36	±9.6
10824	AAE	5G NR (CP-OFDM, 100% RB, 50 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	8,39	±9,6
10825	AAF	5G NR (CP-OFDM, 100% RB, 60 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	8.41	±9.8
10827	AAF	5G NR (CP-OFDM, 100% RB, 80 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	8.42	±9.6
10828	AAE	5G NR (CP-OFDM, 100% RB, 90 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	8.43	±9.6

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0829	AAF	5G NR (CP-OFDM, 100% RB, 100 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	8.40	±9.6
0830	AAE	5G NR (CP-OFDM, 1 RB, 10 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	7.63	±9.6
0831	AAD	5G NR (CP-OFDM, 1 RB, 15 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	7.73	±9.6
0832	AAE	5G NR (CP-OFDM, 1 RB, 20 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	7.74	±9.6
0833	AAD	5G NR (CP-OFDM, 1 RB, 25 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	7.70	±9.6
0834	AAE	5G NR (CP-OFDM, 1 RB, 30 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	7.75	±9.6
0835	AAF	5G NR (CP OFDM, 1 RB, 40 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	7.70	±9.6
0836	AAE	5G NR (CP-OFDM, 1 RB, 50 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	7.66	±9.6
0837	AAF	5G NR (CP-OFDM, 1 RB, 60 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	7.68	±9.6
0839	AAF	5G NR (CP-OFDM, 1 RB, 80 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	7.70	±9.6
0840	AAE	5G NR (CP-OFDM, 1 RB, 90 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	7.67	19.6
0841	AAF	5G NR (CP-OFDM, 1 RB, 100 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	7.71	±9.6
0843	AAD	5G NR (CP-OFDM, 50% RB, 15 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	8.49	±9.6
0844	AAE	5G NR (CP-OFDM, 50% RB, 20 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	8.34	±9.6
0846	AAE	5G NR (CP-OFDM, 50% RB, 30 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	8.41	±9.6
0854	AAE	5G NR (CP-OFDM, 100% RB, 10 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	8.34	±9.6
0855	AAD	5G NR (CP-OFDM, 100% RB, 15 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	8.36	±9.6
0856	AAE	5G NR (CP-OFDM, 100% RB, 20 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	8.37	±9.6
0857	AAD	5G NR (CP-OFDM, 100% RB, 25 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	8.35	±9.6
0858	AAE	5G NR (CP-OFDM, 100% RB, 30 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	8.36	±9.6
0859	AAF	5G NR (CP-OFDM, 100% RB, 40 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	8.34	±9.6
0860	AAE	5G NR (CP-OFDM, 100% RB, 50 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	8.41	±9.6
0861	AAF	5G NR (CP-OFDM, 100% RB, 60 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	8.40	±9.6
0863	AAF	5G NR (CP-OFDM, 100% RB, 80 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	8.41	±9.6
0864	AAE	5G NR (CP-OFDM, 100% RB, 90 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	8.37	±9.6
0865	AAF	5G NR (CP-OFDM, 100% RB, 100 MHz, OPSK, 60 kHz)	5G NR FR1 TDD	8,41	±9.6
10866	AAF	5G NR (DFT-s-OFDM, 1 RB, 100 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.68	±9.6
0869	AAE	5G NR (DFT-s-OFDM, 100% RB, 100 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.89	19.6
0870	AAE	5G NR (DFT-s-QFDM, 1 RB, 100 MHz, QPSK, 120 kHz) 5G NR (DFT-s-OFDM, 100% RB, 100 MHz, QPSK, 120 kHz)	5G NR FR2 TDD	5.75	19.6
10871	AAE	5G NR (DFT-s-OFDM, 1 RB, 100 MHz, 16QAM, 120 KHz)	5G NR FR2 TDD 5G NR FR2 TDD	5.86	±9.6
0872	AAE	5G NR (DFT-5-OFDM, 100% RB, 100 MHz, 16QAM, 120 kHz)		5.75 6.52	±9.6
10873	AAE	5G NR (DFT-s-OFDM, 1 RB, 100 MHz, 64QAM, 120 HHz)	5G NR FR2 TDD	-	±9.6
10874	AAE	5G NR (DFT-s-OFDM, 100% RB, 100 MHz, 64QAM, 120 kHz)	5G NR FR2 TDD 5G NR FR2 TDD	6.61 6.65	±9.6
10875	AAE	5G NR (CP-OFDM, 1 RB, 100 MHz, QPSK, 120 KHz)	5G NR FR2 TDD	7.78	±9.6
10876	AAE	5G NR (CP-OFDM, 100% RB, 100 MHz, QPSK, 120 kHz)	5G NR FR2 TDD	8.39	±9.6
10877	AAE	5G NR (CP-OFDM, 1 RB, 100 MHz, 16QAM, 120 KHz)	5G NR FR2 TDD	7.95	±9.6
0878	AAE	5G NR (CP-OFDM, 100% RB, 100 MHz, 16QAM, 120 kHz)	5G NR FR2 TDD	8.41	±9.6
10879	AAE	5G NR (CP-OFDM, 1 RB, 100 MHz, 64QAM, 120 kHz)	5G NR FR2 TDD	8.12	±9.6
10880	AAE	5G NR (CP-OFDM, 100% RB, 100 MHz, 64QAM, 120 kHz)	5G NR FR2 TDD	8.38	±9.6
10881	AAE	5G NR (DFT-s-OFDM, 1 RB, 50 MHz, QPSK, 120 kHz)	5G NR FR2 TDD	5.75	±9.6
0882	AAE	5G NR (DFT-s-OFDM, 100% RB, 50 MHz, QPSK, 120 kHz)	5G NR FR2 TDD	5.96	±9.6
0883	AAE	5G NR (DFT-s-OFDM, 1 RB, 50 MHz, 16QAM, 120 kHz)	5G NB FR2 TDD	6.57	±9.6
0884	AAE	5G NR (DFT-s-OFDM, 100% RB, 50 MHz, 16QAM, 120 kHz)	5G NR FR2 TDD	6.53	±9.6
10885	AAE	5G NR (DFT-s-OFDM, 1 RB, 50 MHz, 64QAM, 120 kHz)	5G NR FR2 TDD	6.61	±9.6
0886	AAE	5G NR (DFT-s-OFDM, 100% RB, 50 MHz, 64QAM, 120 kHz)	5G NR FR2 TDD	6.65	±9.6
10887	AAE	5G NR (CP-OFDM, 1 RB, 50 MHz, QPSK, 120 kHz)	5G NR FR2 TDD	7.78	±9.6
0888	AAE	5G NR (CP-OFDM, 100% RB, 50 MHz, QPSK, 120 kHz)	5G NR FR2 TDD	8.35	±9.6
0889	AAE	5G NR (CP-OFDM, 1 RB, 50 MHz, 16QAM, 120 kHz)	5G NR FR2 TDD	8.02	±9.6
10890	AAE	5G NR (CP-OFDM, 100% RB, 50 MHz, 16QAM, 120 kHz)	5G NB FR2 TDD	8.40	=9.6
0891	AAE	5G NR (CP-OFDM, 1 RB, 50 MHz, 64QAM, 120 kHz)	5G NR FR2 TDD	8.13	±9.6
0892	AAE	5G NR (CP-OFDM, 100% RB, 50 MHz, 64QAM, 120 kHz)	5G NR FR2 TDD	8.41	±9.6
0897	AAE	5G NR (DFT-s-OFDM, 1 RB, 5 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.66	±9.6
0898	AAC	5G NR (DFT-s-OFDM, 1 RB, 10 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.67	±9.6
0899	AAB	5G NR (DFT-s-OFDM, 1 RB, 15 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.67	±9.6
0900	AAC	5G NR (DFT-s-OFDM, 1 RB, 20 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.68	±9.6
0901	AAB	5G NR (DFT-s-OFDM, 1 RB, 25 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.68	±9.6
0902	AAC	5G NR (DFT-s-OFDM, 1 RB, 30 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.68	±9.6
0903	AAD	5G NR (DFT-s-OFDM, 1 RB, 40 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.68	±9.6
0904	AAC	5G NR (DFT-s-OFDM, 1 RB, 50 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.68	±9.6
0905	AAD	5G NR (DFT-s-OFDM, 1 RB, 60 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.68	±9.6
0906	AAD	5G NR (DFT-s-OFDM, 1 RB, 80 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.68	±9.6
0907	AAE	5G NR (DFT-s-OFDM, 50% RB, 5 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.78	±9.6
0908	AAC	5G NR (DFT-s-OFDM, 50% RB, 10 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.93	±9.6
0909	AAB	5G NR (DFT-s-OFDM, 50% RB, 15 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.96	±9.6
0910	AAC	5G NR (DFT-s-OFDM, 50% RB, 20 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.83	±9.6

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0911	AAB	5G NR (DFT-s-OFDM, 50% RB, 25 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.93	±9.6
0912	AAC	5G NR (DFT-s-OFDM, 50% RB, 30 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.84	±9.6
0913	AAD	5G NR (DFT-s-OFDM, 50% RB, 40 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.84	±9.6
0914	AAC	5G NR (DFT-s-OFDM, 50% RB, 50 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.85	±9.6
915	AAD	5G NR (DFT-s-OFDM, 50% RB, 60 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.83	±9.6
0916	AAD	5G NR (DFT-s-OFDM, 50% RB, 80 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.87	±9.6
1917	AAD	5G NR (DFT-s-OFDM, 50% RB, 100 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.94	±9.8
918	AAE	5G NR (DFT-s-OFDM, 100% RB, 5 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.86	±9.6
0919	AAC	5G NR (DFT-s-OFDM, 100% RB, 10 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.86	±9.6
920	AAB	5G NR (DFT-s-OFDM, 100% RB, 15 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.87	±9.6
1921	AAC	5G NR (DFT-s-OFDM, 100% RB, 20 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.84	±9.6
922	AAB	5G NR (DFT-s-OFDM, 100% RB, 25 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.82	±9.6
923	AAC	5G NR (DFT-s-OFDM, 100% RB, 30 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.84	±9.6
924	AAD	5G NR (DFT-s-OFDM, 100% RB, 40 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.84	±9.6
925	AAC	5G NR (DFT-s-OFDM, 100% RB, 50 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.95	±9.6
926	AAD	5G NR (DFT-s-OFDM, 100% RB, 60 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.84	±9.8
927	AAD	5G NR (DFT-s-OFDM, 100% RB, 80 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.94	±9.6
1928	AAD	5G NR (DFT-s-QFDM, 1 RB, 5 MHz, QPSK, 15 kHz)	5G NR FR1 FDD	5.52	±9.6
929	AAD	5G NR (DFT-s-OFDM, 1 RB, 10 MHz, QPSK, 15 kHz)	5G NR FR1 FDD	5.52	±9.6
930	AAC	5G NR (DFT-s-OFDM, 1 RB, 15 MHz, QPSK, 15 kHz)	5G NR FR1 FDD	5.52	±9.6
1931	AAC	5G NR (DFT-s-OFDM, 1 RB, 20 MHz, OPSK, 15 kHz)	5G NR FR1 FDD	5.51	±9.6
1932	AAC	5G NR (DFT-s-OFDM, 1 RB, 25MHz, QPSK, 15kHz)	5G NR FR1 FDD	5.51	19.6
933	AAC	5G NR (DFT-s-OFDM, 1 RB, 30 MHz, QPSK, 15 kHz)	5G NR FR1 FDD	5.51	±9.6
934	AAC	5G NR (DFT-s-OFDM, 1 RB, 40 MHz, QPSK, 15 kHz)	5G NR FR1 FDD	5.51	±9.6
1935	AAD	5G NR (DFT-s-OFDM, 1 RB, 50 MHz, QPSK, 15 kHz)	5G NR FR1 FDD	5.51	±9.6
0936 0937	AAD	5G NR (DFT-s-OFDM, 50% RB, 5MHz, QPSK, 15kHz)	5G NR FR1 FDD	5.90	±9.6
	AAC	5G NR (DFT-s-OFDM, 50% RB, 10 MHz, QPSK, 15 kHz)	5G NR FR1 FDD	5.77	19.6
938 939	AAC	5G NR (DFT-s-OFDM, 50% RB, 15 MHz, QPSK, 15 kHz)	5G NR FR1 FDD	5.90	±9.6
1939	AAC	5G NR (DFT-s-OFDM, 50% RB, 20 MHz, QPSK, 15kHz)	5G NR FR1 FDD	5.82	±9.6
0941	AAC	5G NR (DFT-s-OFDM, 50% RB, 25 MHz, QPSK, 15 kHz) 5G NR (DFT-s-OFDM, 50% RB, 30 MHz, QPSK, 15 kHz)	5G NR FR1 FDD	5.89	±9.6
942	AAC	5G NR (DFT-s-OFDM, 50% RB, 40 MHz, QPSK, 15 kHz)	5G NR FR1 FDD	5.83	±9.6
0943	AAD	5G NR (DFT-s-OFDM, 50% RB, 50 MHz, QPSK, 15 kHz)	5G NR FR1 FDD	5.95	±9.6
0944	AAD	5G NR (DFT-s-OFDM, 100% RB, 50 MHz, QPSK, 15 kHz)	5G NR FR1 FDD 5G NR FR1 FDD	5.95	±9.6
0945	AAD	5G NR (DFT-s-OFDM, 100% RB, 10MHz, QPSK, 15KHz)	5G NR FR1 FDD	5.85	±9.6 ±9.6
0946	AAC	5G NR (DFT-s-OFDM, 100% RB, 15MHz, QPSK, 15kHz)	5G NR FR1 FDD	5.83	±9.6
0947	AAC	5G NR (DFT-s-OFDM, 100% RB, 20 MHz, QPSK, 15 kHz)	5G NR FR1 FDD	5.87	±9.6
0948	AAC	5G NR (DFT-s-OFDM, 100% RB, 25 MHz, QPSK, 15 kHz)	5G NR FR1 FDD	5.94	±9.6
0949	AAC	5G NR (DFT-s-OFDM, 100% RB, 30 MHz, QPSK, 15 kHz)	5G NR FR1 FDD	5.87	±9.6
0950	AAC	5G NR (DFT-s-OFDM, 100% RB, 40 MHz, QPSK, 15 kHz)	5G NR FR1 FDD	5.94	±9.6
0951	AAD	5G NR (DFT-s-OFDM, 100% RB, 50 MHz, QPSK, 15 kHz)	5G NR FR1 FDD	5.92	±9.6
0952	AAA	5G NR DL (CP-OFDM, TM 3.1, 5 MHz, 64-QAM, 15 kHz)	5G NR FR1 FDD	8.25	±9.6
0953	AAA	5G NR DL (CP-OFDM, TM 3.1, 10 MHz, 64-QAM, 15 kHz)	5G NR FR1 FDD	8.15	±9.6
954	AAA	5G NR DL (CP-OFDM, TM 3.1, 15 MHz, 64-QAM, 15 kHz)	5G NR FR1 FDD	8.23	±9.6
0955	AAA	5G NR DL (CP-OFDM, TM 3.1, 20 MHz, 64-QAM, 15 kHz)	5G NR FR1 FDD	8.42	=9.6
0956	AAA	5G NR DL (CP-OFDM, TM 3.1, 5 MHz, 64-QAM, 30 kHz)	5G NR FR1 FDD	8.14	±9.6
0957	AAA	5G NR DL (CP-OFDM, TM 3.1, 10 MHz, 64-QAM, 30 kHz)	5G NR FR1 FDD	8.31	±9.6
958	AAA	5G NR DL (CP-OFDM, TM 3.1, 15 MHz, 84-QAM, 30 kHz)	5G NR FR1 FDD	8.61	19.6
0959	AAA	5G NR DL (CP-OFDM, TM 3.1, 20 MHz, 64-QAM, 30 kHz)	5G NR FR1 FDD	8.33	±9.6
960	AAE	5G NR DL (CP-OFDM, TM 3.1, 5 MHz, 64-QAM, 15 kHz)	5G NR FR1 TDD	9.32	±9.6
961	AAC	5G NR DL (CP-OFDM, TM 3.1, 10 MHz, 64-QAM, 15 kHz)	5G NR FR1 TDD	9.36	±9.6
962	AAB	5G NR DL (CP-OFDM, TM 3.1, 15 MHz, 64-QAM, 15 kHz)	5G NR FR1 TDD	9.40	±9.6
963	AAC	5G NR DL (CP-OFDM, TM 3.1, 20 MHz, 64-QAM, 15 kHz)	5G NR FR1 TDD	9.55	±9.6
964	AAE	5G NR DL (CP-OFDM, TM 3.1, 5 MHz, 64-OAM, 30 kHz)	5G NR FR1 TDD	9.29	±9.6
965	AAC	5G NR DL (CP-OFDM, TM 3.1, 10 MHz, 64-QAM, 30 kHz)	5G NR FR1 TDD	9.37	±9.6
966	AAB	5G NR DL (CP-OFDM, TM 3.1, 15 MHz, 84 QAM, 30 kHz)	5G NR FR1 TDD	9.55	±9.6
967	AAC	5G NR DL (CP-OFDM, TM 3.1, 20 MHz, 64-QAM, 30 kHz)	5G NR FR1 TDD	9.42	±9.6
968	AAD	5G NR DL (CP-OFDM, TM 3.1, 100 MHz, 64-QAM, 30 kHz)	5G NR FR1 TDD	9.49	±9.6
1972	AAC	5G NR (CP-OFDM, 1 RB, 20 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	11.59	±9.6
973	AAD	5G NR (DFT-s-OFDM, 1 RB, 100 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	9.06	±9.6
974	AAD	5G NR (CP-OFDM, 100% RB, 100 MHz, 256-QAM, 30 kHz)	5G NR FR1 TDD	10,28	19.6
0978	AAA	ULLA BDR	ULLA	1.16	±9.6
979	AAA	ULLA HDR4	ULLA	8.58	±9.6
0860	AAA	ULLA HDR8	ULLA	10.32	±9.6
0981	AAA	ULLA HDRp4	ULLA	3.19	19.6
982	AAA	ULLA HDRp8	ULLA	3.43	±9.6

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10983	AAC	5G NR DL (CP-OFDM, TM 3.1, 40 MHz, 64-QAM, 15 kHz)	5G NR FR1 TDD	9.31	±9.6	
10984	AAB	5G NR DL (CP-OFDM, TM 3.1, 50 MHz, 64-QAM, 15 kHz)	5G NR FR1 TDD	9.42	±9.6	
10985	AAC	5G NR DL (CP-OFDM, TM 3.1, 40 MHz, 64-QAM, 30 kHz)	5G NR FR1 TDD	9.54	±9.6	
10986	AAB	5G NB DL (CP-OFDM, TM 3.1, 50 MHz, 64-QAM, 30 kHz)	5G NR FR1 TDD	9.50	±9.6	
10987	AAC	5G NR DL (CP-OFDM, TM 3.1, 60 MHz, 64-QAM, 30 kHz)	5G NR FR1 TDD	9.53	19.6	
10988	AAB	5G NR DL (CP-OFDM, TM 3.1, 70 MHz, 64-QAM, 30 kHz)	5G NR FR1 TDD	9.38	±9.6	
10989	AAC	5G NR DL (CP-OFDM, TM 3.1, 80 MHz, 64 QAM, 30 kHz)	5G NR FR1 TDD	9.33	±9.6	
10990	AAB	5G NR DL (CP-OFDM, TM 3.1, 90 MHz, 64-QAM, 30 kHz)	5G NR FRI TDD	9.52	±9.6	
11003	AAA	5G NR DL (CP-OFDM, TM 3.1, 30 MHz, 64-QAM, 15 kHz)	5G NR FR1 TDD	10.24	±9.6	
11004	AAA	5G NR DL (CP-OFDM, TM 3.1, 30 MHz, 64-QAM, 30 kHz)	5G NR FR1 TDD	10.73	±9.6	
11005	AAA	5G NR DL (CP-OFDM, TM 3.1, 25 MHz, 64-QAM, 15 kHz)	5G NR FR1 FDD	8.70	±9.6	
11006	AAA	5G NR DL (CP-OFDM, TM 3.1, 30 MHz, 64-QAM, 15 kHz)	5G NR FR1 FDD	8.55	±9.6	
11007	AAA	5G NR DL (CP-OFDM, TM 3.1, 40 MHz, 64-QAM, 15 kHz)	5G NR FR1 FDD	8.45	19.6	
11008	AAA	5G NR DL (CP-OFDM, TM 3.1, 50 MHz, 64-QAM, 15 kHz)	5G NR FR1 FDD	8.51	±9.6	
11009	AAA	5G NR DL (CP-OFDM, TM 3.1, 25 MHz, 64-QAM, 30 kHz)	5G NR FR1 FDD	8.76	±9.6	
11010	AAA	5G NR DL (CP-OFDM, TM 3.1, 30 MHz, 64-QAM, 30 kHz)	5G NR FR1 FDD	8.95	±9.6	
11011			5G NR FR1 FDD	8.96	±9.6	
11012	AAA	5G NR DL (CP-OFDM, TM 3.1, 50 MHz, 64-QAM, 30 kHz)	5G NR FR1 FDD	8.68	±9.6	
11013	AAB	IEEE 802.11be (320 MHz, MCS1, 99pc duty cycle)	WLAN	8.47	±9.6	
11014	AAB	IEEE 802.11be (320 MHz, MCS2, 99pc duty cycle)	WLAN	8.45	±9.6	
11015	AAB	IEEE 802.11be (320 MHz, MCS3, 99pc duty cycle)	WLAN	8.44	±9.6	
11016	AAB	IEEE 802.11be (320 MHz, MCS4, 99pc duty cycle)	WLAN	8.44	19.6	
11017	AAB	IEEE 802.11be (320 MHz, MCS5, 99pc duty cycle)	WLAN	8.41	±9.6	
11018	AAB	IEEE 802.11be (320 MHz, MCS6, 99pc duty cycle)	WLAN	8.40	±9.6	
11019	AAB	IEEE 802.11be (320 MHz, MCS7, 99pc duty cycle)	WLAN	8.29	±9.6	
11020	AAB	IEEE 802.11be (320 MHz, MCSB, 99pc duty cycle)	WLAN	8.27	±9.6	
11021	AAB	IEEE 802.11be (320 MHz, MCS9, 99pc duty cycle)	WLAN	8.46	±9.6	
11022	AAB	IEEE 802.11be (320 MHz, MCS10, 99pc duty cycle)	WLAN	8.36	±9.6	
11023	AAB	IEEE 802.11be (320 MHz, MCS11, 99pc duty cycle)	WLAN	8.09	±9.6	
11024	AAB	IEEE 802 11be (320 MHz, MCS12, 99pc duty cycle)	WLAN	8.42	±9.6	
11025	AAB	IEEE 802.11be (320 MHz, MCS13, 99pc duty cycle)	WLAN	8.37	±9.6	
11026	AAB	IEEE 802.11be (320 MHz, MCS0, 99pc duty cycle)	WLAN	8.39	±9.6	

^E Uncertainty is determined using the max. deviation from linear response applying rectangular distribution and is expressed for the square of the field value.

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Calibration Laboratory of Schmid & Partner Engineering AG Reughausstrasse 43, 8004 Zurich, Switzerland								
Accredited by the Swiss Accr The Swiss Accreditation Se Multilateral Agreement for t	ervice is one of the signal	tories to the EA	ccreditation No.: SCS 0108					
Dient Dt&C Gyeonggi-do, R	Republic of Korea	Certificate No.	EX-7368_Nov23					
CALIBRATION C	ERTIFICATE							
Object	EX3DV4 - SN:7	368						
Calibration procedure(s)	QA CAL-25.v8), QA CAL-12.v10, QA CAL-14.v7, cedure for dosimetric E-field probe						
Calibration date	November 27, 2	2023						
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 DCP DAK-3.5 (weighted)	SN: 103244	30-Mar-23 (No. 217-03804)	Mar-24					
DCP DAK-3.5 (weighted)	SN: 1249 SN: 1016	05-Oct-23 (OCP-DAK3.5-1249_Oct23) 05-Oct-23 (OCP-DAK12-1016_Oct23)	Oct-24					
Reference 20 dB Attenuator	SN: CC2552 (20x)	30-Mar-23 (No. 217-03809)	Oct-24 Mar-24					
DAE4	SN: 660	16-Mar-23 (No. DAE4-660_Mar23)	Mar-24					
	SN: 3013	06-Jan-23 (No. ES3-3013 Jan23)	1					
Reference Probe ES3DV2			Jan-24					
Secondary Standards	ID	Check Date (in house)	Scheduled Check					
econdary Standards ower meter E4419B	SN: GB41293874	Check Date (in house) 06-Apr-16 (in house check Jun-22)						
Secondary Standards Power meter E4419B Power sensor E4412A	SN: GB41293874 SN: MY41498087	Check Date (in house) 06-Apr-16 (in house check Jun-22) 06-Apr-16 (in house check Jun-22)	Scheduled Check					
econdary Standards lower meter E4419B lower sensor E4412A lower sensor E4412A	SN: GB41293874 SN: MY41498087 SN: 000110210	Check Date (in house) 06-Apr-16 (in house check Jun-22) 06-Apr-16 (in house check Jun-22) 06-Apr-16 (in house check Jun-22)	Scheduled Check In house check: Jun-24 In house check: Jun-24 In house check: Jun-24					
Secondary Standards Power meter E4419B Power sensor E4412A Power sensor E4412A Regenerator HP 8648C	SN: GB41293874 SN: MY41498087	Check Date (in house) 06-Apr-16 (in house check Jun-22) 06-Apr-16 (in house check Jun-22)	Scheduled Check In house check: Jun-24 In house check: Jun-24					
Secondary Standards Power meter E4419B Power sensor E4412A Power sensor E4412A Regenerator HP 8648C	SN: GB41293874 SN: MY41498087 SN: 000110210 SN: US3642U01700	Check Date (in house) 06-Apr-16 (in house check Jun-22) 06-Apr-16 (in house check Jun-22) 06-Apr-16 (in house check Jun-22) 04-Aug-99 (in house check Jun-22)	Scheduled Check In house check: Jun-24 In house check: Jun-24 In house check: Jun-24 In house check: Jun-24					
econdary Standards ower meter E4419B ower sensor E4412A ower sensor E4412A R generator HP 8648C	SN: GB41293874 SN: MY41498087 SN: 000110210 SN: US3642U01700	Check Date (in house) 06-Apr-16 (in house check Jun-22) 06-Apr-16 (in house check Jun-22) 06-Apr-16 (in house check Jun-22) 04-Aug-99 (in house check Jun-22)	Scheduled Check In house check: Jun-24 In house check: Jun-24 In house check: Jun-24 In house check: Jun-24					
Secondary Standards Power meter E4419B Power sensor E4412A Power sensor E4412A RF generator HP 8648C Network Analyzer E8358A	SN: GB41293874 SN: MY41498087 SN: 000110210 SN: US3642U01700 SN: US41080477	Check Date (in house) 06-Apr-16 (in house check Jun-22) 06-Apr-16 (in house check Jun-22) 06-Apr-16 (in house check Jun-22) 04-Aug-99 (in house check Jun-22) 31-Mar-14 (in house check Oct-22)	Scheduled Check In house check: Jun-24 In house check: Jun-24 In house check: Jun-24 In house check: Jun-24 In house check: Oct-24 Signature					
Secondary Standards Power meter E4419B Power sensor E4412A Power sensor E4412A RF generator HP 8648C Network Analyzer E8358A	SN: GB41293874 SN: MY41498087 SN: 000110210 SN: US3642U01700 SN: US41080477 Name	Check Date (in house) 06-Apr-16 (in house check Jun-22) 06-Apr-16 (in house check Jun-22) 06-Apr-16 (in house check Jun-22) 04-Aug-99 (in house check Jun-22) 31-Mar-14 (in house check Oct-22) Function	Scheduled Check In house check: Jun-24 In house check: Jun-24 In house check: Jun-24 In house check: Jun-24 In house check: Oct-24					
Secondary Standards Power meter E4419B Power sensor E4412A Power sensor E4412A RF generator HP 8648C Network Analyzer E8358A Calibrated by Approved by	SN: GB41293874 SN: MY41498087 SN: 000110210 SN: US3642U01700 SN: US41080477 Name Joanna Lleshaj Sven Kühn	Check Date (in house) 06-Apr-16 (in house check Jun-22) 06-Apr-16 (in house check Jun-22) 06-Apr-16 (in house check Jun-22) 04-Aug-99 (in house check Jun-22) 31-Mar-14 (in house check Oct-22) Function Laboratory Technician	Scheduled Check In house check: Jun-24 In house check: Jun-24 In house check: Jun-24 In house check: Jun-24 In house check: Oct-24 Signature					
Reference Probe ES3DV2 Secondary Standards Power meter E4419B Power sensor E4412A Power sensor E4412A RF generator HP 8648C Network Analyzer E8358A Calibrated by Approved by This calibration certificate sh	SN: GB41293874 SN: MY41498087 SN: 000110210 SN: US3642U01700 SN: US41080477 Name Joanna Lleshaj Sven Kühn	Check Date (in house) 06-Apr-16 (in house check Jun-22) 06-Apr-16 (in house check Jun-22) 06-Apr-16 (in house check Jun-22) 04-Aug-99 (in house check Jun-22) 31-Mar-14 (in house check Oct-22) Function Laboratory Technician Technical Manager	Scheduled Check In house check: Jun-24 In house check: Jun-24 In house check: Jun-24 In house check: Jun-24 In house check: Oct-24 Signature					



Calibration Laboratory of Schmid & Partner Engineering AG

Zeughausstrasse 43, 8004 Zurich, Switzerland



S Schweizerischer Kalibrierdienst

C Service suisse d'étalonnage

Servizio svizzero di taratura

S Swiss Calibration Service

Accreditation No.: SCS 0108

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

Glossary

TSL	tissue simulating liquid
NORMx,y,z	sensitivity in free space
ConvF	sensitivity in TSL / NORMx,y,z
DCP	diode compression point
CF	crest factor (1/duty_cycle) of the RF signal
A, B, C, D	modulation dependent linearization parameters
Polarization φ	φ rotation around probe axis
Polarization ϑ	ϑ rotation around an axis that is in the plane normal to probe axis (at measurement center), i.e., $\vartheta = 0$ is normal to probe axis
Connector Angle	information used in DASY system to align probe sensor X to the robot coordinate system

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"

Methods Applied and Interpretation of Parameters:

- NORMx,y,z: Assessed for E-field polarization ∂ = 0 (f ≤ 900 MHz in TEM-cell; f > 1800 MHz: R22 waveguide). NORMx,y,z are only intermediate values, i.e., the uncertainties of NORMx,y,z does not affect the E²-field uncertainty inside TSL (see below ConvF).
- NORM(I)x,y,z = NORMx,y,z * frequency_response (see Frequency Response Chart). This linearization is implemented in DASY4 software versions later than 4.2. The uncertainty of the frequency response is included in the stated uncertainty of ConvF.
- DCPx,y,z: DCP are numerical linearization parameters assessed based on the data of power sweep with CW signal. DCP
 does not depend on frequency nor media.
- · PAR: PAR is the Peak to Average Ratio that is not calibrated but determined based on the signal characteristics
- Ax,y,z; Bx,y,z; Cx,y,z; Dx,y,z; VRx,y,z: A, B, C, D are numerical linearization parameters assessed based on the data of
 power sweep for specific modulation signal. The parameters do not depend on frequency nor media. VR is the maximum
 calibration range expressed in RMS voltage across the diode.
- ConvF and Boundary Effect Parameters: Assessed in Ilat phantom using E-field (or Temperature Transfer Standard for f ≤ 800 MHz) and inside waveguide using analytical field distributions based on power measurements for f > 800 MHz. The same setups are used for assessment of the parameters applied for boundary compensation (alpha, depth) of which typical uncertainty values are given. These parameters are used in DASY4 software to improve probe accuracy close to the boundary. The sensitivity in TSL corresponds to NORMx, y, z * ConvF whereby the uncertainty corresponds to that given for ConvF. A frequency dependent ConvF is used in DASY version 4.4 and higher which allows extending the validity from ±50 MHz to ±100 MHz.
- Spherical isotropy (3D deviation from isotropy): in a field of low gradients realized using a flat phantom exposed by a patch antenna.
- Sensor Offset: The sensor offset corresponds to the offset of virtual measurement center from the probe tip (on probe axis). No tolerance required.
- Connector Angle: The angle is assessed using the information gained by determining the NORMx (no uncertainty required).

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Parameters of Probe: EX3DV4 - SN:7368

Basic Calibration Parameters

	Sensor X	Sensor Y	Sensor Z	Unc $(k = 2)$
Norm $(\mu V/(V/m)^2)^A$	0.48	0.58	0.44	±10.1%
DCP (mV) B	101.3	98.8	102.2	±4.7%

Calibration Results for Modulation Response

UID	Communication System Name		A dB	$^{B}_{dB\sqrt{\mu V}}$	c	D dB	VR mV	Max dev.	Max Unc ^E k = 2
0	CW	X	0.00	0.00	1.00	0.00	124.3	±0.9%	±4.7%
		Y	0.00	0.00	1.00		130.1		
	in the second	Z	0.00	0.00	1.00	·	120.8	1	
10352	Pulse Waveform (200Hz, 10%)	X	6.00	76.00	15.00	10.00	60.0	±3.7%	±9.6%
		Y	2.07	63.44	8.44		60.0		1
		Z	3.72	69.78	12.20		60.0		
10353 F	Pulse Waveform (200Hz, 20%)	X	10.04	80.86	14.88	6.99	80.0	±2.6%	±9.6%
		Y	1.21	61.69	6.78		80.0	1	1.000
	A solution of the second s	Z	4.25	73.43	12.40		80.0	1	1000
10354	Pulse Waveform (200Hz, 40%)	X	20.00	85.89	14.60	3.98	95.0	±1.4%	±9.6%
Sec. 1		Y	0.61	60.42	5.44		95.0		
	and a state of the second	Z	20.00	85.20	14.08		95.0	-	
10355	Pulse Waveform (200Hz, 60%)	X	1.01	66.88	7.80	2.22	120.0	±1.1%	±9.6%
		Y	0.34	60.00	4.76		120.0		
		Z	0.70	65.43	7.17		120.0		
10387	OPSK Waveform, 1 MHz	X	1.60	66.23	14.75	1.00	150.0	±2.8%	±9.6%
		Y	1.67	66.67	15.11		150.0		
		Z	1.44	66.16	14.26		150.0		
10388	QPSK Waveform, 10 MHz	X	2.16	67.98	15.57	0.00	150.0	±0.9%	±9.6%
		Y	2.24	68.29	15.88		150.0		a si a ru
	an and the first off the second	Z	1.93	66.85	15.07	A	150.0		
10396	64-QAM Waveform, 100 kHz	X	2.79	69,99	18.42	3.01	150.0	±0.8%	+9.6%
12.24		Ŷ	2.72	70.06	18.74		150.0	10000	
		Z	2.57	70.11	18.62		150.0		
10399	64-QAM Waveform, 40 MHz	X	3.47	67,18	15.73	0.00	150.0	±2.0%	±9.6%
		Y	3.54	67.32	15.90	10.20	150.0	Corrange .	10000
		Z	3.30	66.59	15.43		150.0		
10414	WLAN CCDF, 64-OAM, 40 MHz	X	4.83	65.78	15.57	0.00	150.0	±3.8%	±9.6%
		Y	4.89	65.90	15.70		150.0		Contra (a
		Z	4.59	65.41	15.35		150.0	_	

Note: For details on UID parameters see Appendix

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%.

A The uncertainties of Norm X,Y,Z do not affect the E²-field uncertainty inside TSL (see Pages 5 and 6). ^B Linearization parameter uncertainty for maximum specified field strength. ^E Uncertainty is determined using the max, deviation from linear response applying rectangular distribution and is expressed for the square of the field value.

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Parameters of Probe: EX3DV4 - SN:7368

Sensor Model Parameters

	C1 fF	C2 fF	и V-1	T1 ms V ⁻²	T2 ms V ⁻¹	T3 ms	T4 V ⁻²	T5 V ⁻¹	T6
x	43.3	322.63	35.45	7.66	0.19	5.04	0.76	0.31	1.01
у	41.9	314.98	35.92	11.08	0.00	4.96	1.04	0.19	1.01
z	32.9	243.99	35,10	5.42	0.16	5.03	1.62	0.04	1.01

Other Probe Parameters

Sensor Arrangement	Triangular
Connector Angle	-28.1°
Mechanical Surface Detection Mode	enabled
Optical Surface Detection Mode	disabled
Probe Overall Length	- 337 mm
Probe Body Diameter	10 mm
Tip Length	9.mm
Tip Diameter	2.5 mm
Probe Tip to Sensor X Calibration Point	1 mm
Probe Tip to Sensor Y Calibration Point	1 mm
Probe Tip to Sensor Z Calibration Point	1 mm
Recommended Measurement Distance from Surface	1.4 mm

Note: Measurement distance from surface can be increased to 3-4 mm for an Area Scan job.

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Parameters of Probe: EX3DV4 - SN:7368

Calibration Parameter Determined in Head Tissue Simulating Media

f (MHz) ^C	Relative Permittivity ^F	Conductivity ^F (S/m)	ConvF X	ConvF Y	ConvF Z	Alpha ^G	Depth ^G (mm)	Unc (k = 2)
750	41.9	0.89	9.01	9.29	8.36	0.53	1.27	±12.0%
835	41.5	0.90	9.09	8.88	8.59	0.53	1.27	±12.0%
900	41.5	0.97	9.24	8.46	8.78	0.50	1.27	±12.0%
1640	40.2	1.31	8.12	7.72	7.99	0.55	1.27	±12.0%
1750	40.1	1.37	8.08	7.99	7.77	0.30	1.27	±12.0%
1900	40.0	1.40	7.79	7.71	7.55	0.32	1.27	±12.0%
2450	39.2	1.80	7.31	7.17	7.07	0.31	1,27	±12.0%
2600	39.0	1.96	7.43	7.27	7.18	0.29	1.27	±12.0%
3300	38.2	2.71	6.56	6.28	6.51	0.35	1.27	±14.0%
3500	37.9	2.91	7.04	6.74	6.98	0.35	1.27	±14.0%
3700	37.7	3.12	6.91	6.63	6.84	0.36	1.27	±14.0%
3900	37.5	3.32	6.68	6.41	6.60	0.37	1.27	±14.0%
4100	37.2	3.53	6.46	6.21	6.36	0.36	1.27	±14.0%
4200	37.1	3.63	6.39	6.15	6.24	0.37	1.27	±14.0%
4400	36.9	3.84	6.27	6.04	6.15	0.37	1.27	±14.0%
4600	36.7	4.04	6.37	6.14	6.23	0.37	1.27	±14.0%
4800	36.4	4.25	6.31	6.08	6.17	0.36	1.27	±14.0%
4950	36.3	4.40	5,94	5.72	5.77	0.43	1.36	±14.0%
5200	36.0	4.66	5.83	5.61	5.63	0.34	1.65	14.0%
5300	35,9	4.76	5.63	5.40	5.43	0.35	1.68	±14.0%
5500	35.6	4.96	5.01	4.82	4.85	0.41	1.61	±14.0%
5600	35.5	5.07	4.88	4.69	4.69	0.40	1.68	±14.0%
5800	35.3	5.27	4.95	4.79	4.75	0.39	1.78	±14.0%

C Frequency validity above 300 MHz of ±100 MHz only applies for DASY v4.4 and higher (see Page 2), else it is restricted to ±50 MHz. The uncertainty is the RSS of the ConvF uncertainty at calibration frequency and the uncertainty for the indicated frequency band. Frequency validity below 300 MHz is ±10, 25, 40, 50 and 70 MHz for ConvF assessments at 30, 64, 128, 150 and 220 MHz respectively. Validity of ConvF assessed at 6 MHz is 4–9 MHz, and ConvF assessed at 13 MHz is 9–19 MHz. Above 5 GHz frequency validity can be extended to ±110 MHz F The probes are calibrated using tissue simulating liquids (TSL) that deviate for *x* and *σ* by less than ±5% from the target values (typically better than ±3%).

and are valid for TSL with deviations of up to ±10%. If TSL with deviations from the target of less than ±5% are used, the calibration uncertainties are 11.1% for 0.7 - 3 GHz and 13.1% for 3 - 6 GHz.

^G Alpha/Depth are determined during calibration. SPEAG warrants that the remaining deviation due to the boundary effect after compensation is always less than ±1% for frequencies below 3 GHz and below ±2% for frequencies between 3-6 GHz at any distance larger than half the probe tip diameter from the boundary.

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Parameters of Probe: EX3DV4 - SN:7368

Calibration Parameter Determined in Head Tissue Simulating Media

f (MHz) ^C	Relative Permittivity ^F	Conductivity ^F (S/m)	ConvF X	ConvF Y	ConvF Z	Alpha ^G	Depth ^G (mm)	Unc (k = 2)
6500	34.5	6.07	5.46	5.26	5.24	0.20	2.00	±18.6%
7000	33.9	6.65	5.61	5.34	5.33	0.20	2.00	±18.6%
8000	32.7	7.84	5.67	5.30	5.26	0.44	1.41	±18.6%
9000	31.6	9.08	5.85	5.58	5.38	0.45	1.60	±18.6%

^C Frequency validity at 6.5 GHz is -600/+700 MHz, and ± 700 MHz at or above 7 GHz. The uncertainty is the RSS of the ConvF uncertainty at calibration frequency and the uncertainty for the indicated frequency band. F The probes are calibrated using tissue simulating liquids (TSL) that deviate for c and σ by less than $\pm 10\%$ from the target values (typically better than $\pm 6\%$) and are valid for TSL with deviations of up to $\pm 10\%$.

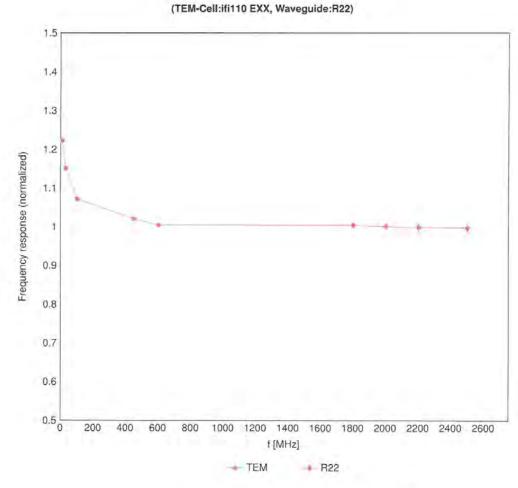
G Alpha/Depth are determined during calibration. SPEAG warrants that the remaining deviation due to the boundary effect after compensation is always less than ±1% for trequencies below 3 GHz; below ±2% for frequencies between 3-6 GHz, and below ±4% for frequencies between 6-10 GHz at any distance larger than half the probe tip diameter from the boundary.

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Frequency Response of E-Field

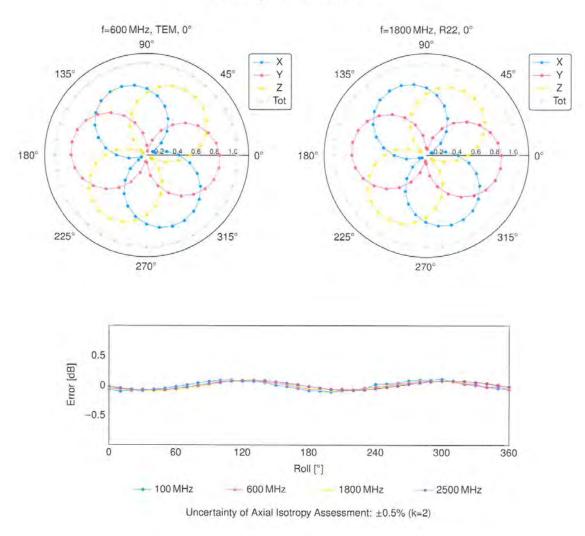
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Uncertainty of Frequency Response of E-field: ±6.3% (k=2)



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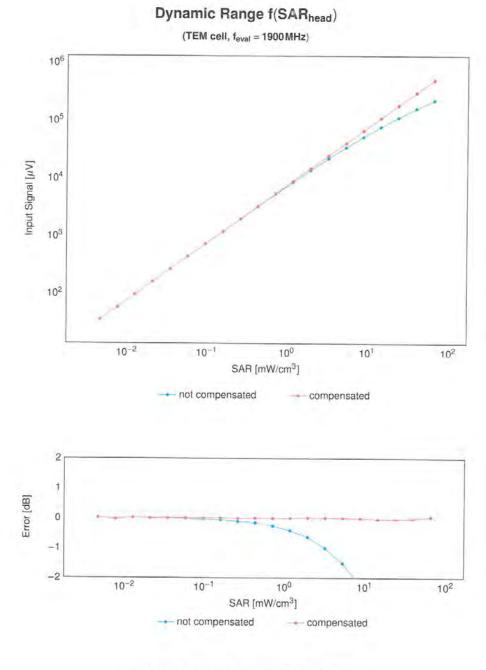
Receiving Pattern (ϕ), $\vartheta = 0^{\circ}$

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Uncertainty of Linearity Assessment: $\pm 0.6\%$ (k=2)

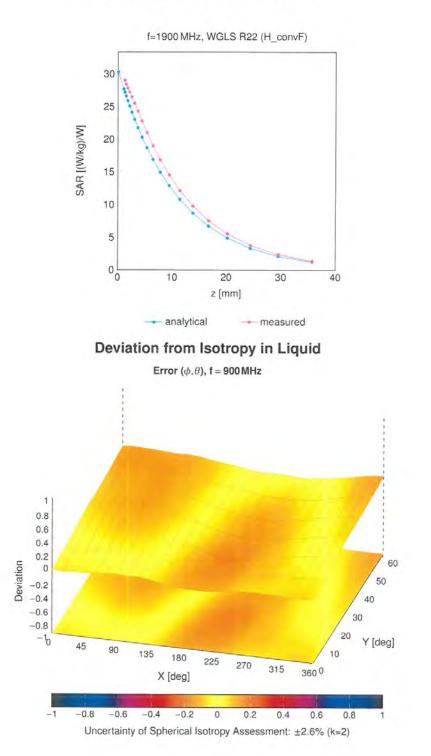
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EX3DV4 - SN:7368

Appendix: Modulation Calibration Parameters

UID	Rev	Communication System Name	Group	PAR (dB)	Unc ^E k =
Ű		CW	GW	0.00	±4.7
10010	CAB	SAR Validation (Square, 100 ms, 10 ms)	Test	10.00	±9.6
10011	CAC	UMTS-FDD (WCDMA)	WGDMA	2.91	±9.6
10012	CAB	IEEE 802.11b WiFi 2.4 GHz (DSSS, 1 Mbps)	WLAN	1.87	±9.6
10013	CAB	IEEE 802.11g WIFi 2.4 GHz (DSSS-OFDM, 6 Mbps)	WLAN	9.46	±9.6
10021	DAC	GSM-FDD (TDMA, GMSK)	GSM	9.39	±9.6
10.023	DAC	GPRS-FDD (TDMA, GMSK, TN 0)	GSM	9.57	±9.6
0024	DAC	GPRS-FDD (TDMA, GMSK, TN 0-1)	GSM	6.56	±9.6
10.025	DAC	EDGE-FDD (TDMA, 8PSK, TN 0)	GSM	12.62	±9.6
10026	DAC	EDGE-FDD (TDMA, 8PSK, TN 0-1)	GSM	9.55	±9.6
10027	DAC	GPRS-FDD (TDMA, GMSK, TN 0-1-2)	GSM	4.80	±9.6
10028	DAC	GPRS-FDD (TDMA, GMSK, TN 0-1-2-3)	GSM	3.55	+9.6
10029	DAC	EDGE-FDD (TDMA, 8PSK, TN 0-1-2)	GSM	7.78	±9.6
10030	CAA	IEEE 802.15.1 Bluetooth (GFSK, DH1)	Bluetooth	5.30	+9.6
0031	CAA	IEEE 802.15.1 Bluetooth (GFSK, DH3)	Bluetooth	1.87	±9.6
0.032	CAA	IEEE 802.15.1 Bluetooth (GFSK, DH5)	Bluetooth	1,16	±9.6
0033	CAA	IEEE 802.15.1 Bluetooth (PI/4-DQPSK, DH1)	Bluetooth	7,74	
0034	CAA	IEEE 802.15,1 Bluetooth (PI/4-DQPSK, DH3)			±9.6
0.035	CAA	IEEE 802.15.1 Bluetooth (PI/4-DOPSK, DHS)	Bluetooth	4.53	±9.6
0036	CAA	IEEE 802,15.1 Bluetooth (8-DPSK, DH1)	Bluetooth	3.83	±9.6
0038	CAA	IEEE 802.15.1 Bluetooth (8-DPSK, DH3)	Bluetooth	8.01	±9.6
0038	GAA		Bluetooth	4.77	±9.6
0038	CAB	IEEE 802.15.1 Bluetooth (8-DPSK, DH5) CDMA2000 (1xBTT, BC1)	Bluetooth	4.10	±9.6
		1 1 1 2 1	CDMA2000	4.57	±9.6
0042	CAB	IS-54 / IS-136 FDD (TDMA/FDM, PI/4-DQPSK, Halfrate)	AMPS	7.78	±9,6
0044	CAA	IS-91/EIA/TIA-553 FDD (FDMA, FM)	AMPS	0.00	±9.6
0048	CAA	DECT (TDD, TDMA/FDM, GFSK, Full Slot, 24)	DECT	13.80	+9.6
0049	CAA	DECT (TDD, TDMA/FDM, GFSK, Double Slot, 12)	DECT	10.79	±9.6
0.056	CAA	UMTS-TDD (TD-SCDMA, 1 28 Mcps)	TD-SCDMA	11.01	±9,6
0.058	DAC	EDGE-FDD (TDMA, 8PSK, TN 0-1-2-3)	GSM	6.52	±9.6
0 0 5 9	CAB	IEEE 802.11b WIFi 2.4 GHz (DSSS, 2 Mbps)	WLAN	2.12	±9.6
0.060	CAB	IEEE 802 11b WiFi 2.4 GHz (DSSS. 5.5 Mbps)	WLAN	2.83	±9.6
0.061	CAB	IEEE 802.11b WiFi 2.4 GHz (DSSS, 11 Mbps)	WLAN	3.60	±9.6
0.062	CAD	IEEE 802.11a/h WiFi 5 GHz (OFDM, 6 Mbps)	WLAN	8.68	±9.6
0.063	CAD	IEEE 802.11a/h WiFi 5 GHz (OFDM, 9 Mbps)	WLAN	8.63	±9.6
0.064	CAD	IEEE 802.11a/h WiFi 5 GHz (OFDM, 12 Mbps)	WLAN	9.09	±9.6
0.065	CAD	IEEE 802.11a/h WiFi 5 GHz (OFDM, 18 Mbps)	WLAN	9.00	±9.6
0.066	CAD	IEEE 802.11a/h WiFi 5 GHz (OFDM, 24 Mbps)	WLAN	9.38	±9.6
0.067	CAD	IEEE 802.11a/h WiFi 5 GHz (OFDM, 36 Mbps)	WLAN.	10.12	±9.6
0 0 6 8	CAD	IEEE 802.11a/h WiFi 5 GHz (OFDM, 48 Mbps)	WLAN	10.24	±9.6
0.069	CAD	IEEE 802.11a/h WiFi 5 GHz (OFDM, 54 Mbps)	WLAN	10.56	+9.6
0071	CAB	IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 9 Mbps)	WLAN	9.83	±9.6
0072	CAB	IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 12 Mbps)	WLAN	9.62	±9.6
0073	CAB	IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 18 Mbps)	WLAN	9.94	29.6
0074	CAB	IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 24 Mbps)	WLAN	10.30	±9.6
0075	CAB	IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 36 Mbps)	WLAN	10.30	±9.6
0076	CAB	IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 48 Mbps)	WLAN	10.77	±9.6
0077	CAB	IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 54 Mbps)	WEAN	11.00	
0.081	CAB	CDMA2000 (1xRTT, RC3)	CDMA2000	3.97	±9.6
0 082	CAB	IS-54 / IS-136 FDD (TDMA/FDM, PI/4-DQPSK, Fullrate)	AMPS		±9.6
0.090	DAC	GPRS-FDD (TDMA, GMSK, TN 0-4)		4.77	±9.6
0097	CAC	UMTS-FDD (HSDPA)	GSM	6.56	±9.6
0.098	CAC	UMTS-FDD (HSUPA, Subtest 2)	WCDMA	3.98	±9.6
0099	DAC	EDGE-FDD (TDMA, 805(est 2)	WCDMA	3.98	±9,6
0100	CAF	LTE-FDD (SC-FDMA, 100% RB, 20 MHz, QPSK)	GSM	9.55	±9.6
	CAF		LTE-FDD	5.67	±9.6
0101	CAF	LTE-FDD (SC-FDMA, 100% RB, 20 MHz, 16-QAM)	LTE-FDD	6.42	±9.6
		LTE-FDD (SC-FDMA, 100% RB, 20 MHz, 64-QAM)	LTE-FDD	6.60	±9.6
0103	CAH	LTE-TDD (SC-FDMA, 100% RB, 20 MHz, QPSK)	LTE-TDD	9.29	±9.6
0104	CAH	LTE-TDD (SC-FDMA, 100% RB, 20 MHz, 16-QAM)	LTE-TDD	9.97	±9.6
0105	CAH	LTE-TDD (SC-FDMA, 100% RB, 20 MHz, 64-QAM)	LTE-TDD	10.01	±9.6
0108	CAH	LTE-FDD (SC-FDMA, 100% RB, 10 MHz, QPSK)	LTE-FDD	5.80	±9.6
0109	GAH	LTE-FDD (SC-FDMA, 100% RB, 10 MHz, 16-QAM)	LTE-FOD	6,43	±9.6
0110	CAH	LTE-FDD (SC-FDMA, 100% RB, 5 MHz, QPSK)	LTE-FDD	5.75	±9.6
)111	CAH	LTE-FDD (SC-FDMA: 100% RB, 5 MHz, 16-QAM)	LTE-FDD	6.44	±9.6

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10112	CAH	LTE-FDD (SC-FDMA, 100% RB, 10 MHz, 64-QAM)	LTE-FDD	6.59	±9.6
10113	CAH	LTE-FDD (SC-FDMA, 100% RB, 5 MHz, 64-QAM)	LTE-FDD	6.62	±9.6
10114	CAD	IEEE 802.11n (HT Greenfield, 13.5 Mbps, BPSK)	WLAN	8.10	±9.6
10115	CAD	IEEE 802.11n (HT Greenfield, 81 Mbps, 16-QAM)	WLAN	8.46	±9.6
10116	CAD	JEEE 802.11n (HT Greenfield, 135 Mbps, 64-QAM)	WEAN	8.15	±9.6
10117	CAD	IEEE 802.11n (HT Mixed, 13.5 Mbps, BPSK)	WLAN	8.07	±9.6
10118	CAD	IEEE 802.11n (HT Mixed, 81 Mbps, 16-QAM)	WLAN	8.59	±9.6
10119	CAD	IEEE 802.11n (HT Mixed, 135 Mbps, 64-QAM)	WLAN	8.13	±9.6
10140	CAF	LTE-FDD (SC-FDMA, 100% RB, 15 MHz, 16-QAM)	LTE-FDD	6.49	±9.6
10141	CAF	LTE-FDD (SC-FDMA, 100% RB, 15 MHz, 64-QAM)	LTE FDD	6,53	±9,6
10142	CAF	LTE-FDD (SC-FDMA, 100% RB, 3 MHz, QPSK)	LTE-FDD	5.73	±9.6
10143	CAF	LTE-FDD (SC-FDMA, 100% RB, 3 MHz, 16-QAM)	LTE-FDD	6,35	±9.6
10144	CAF	LTE-FDD (SC-FDMA, 100% RB, 3 MHz, 64-QAM)	LTE-FDD	6.65	±9.6
10145	CAG	LTE-FDD (SC-FDMA, 100% RB, 1.4 MHz, OPSK)	LTE-FDD	5,76	±9,6
0146	CAG	LTE-FDD (SC-FDMA, 100% RB, 1,4 MHz, 16-OAM)	LTE-FDD	8.41	±9.6
10147	CAG	LTE-FDD (SC-FDMA, 100% RB, 1 4 MHz, 64-QAM)	LTE-FDD	6.72	±9,6
0149	CAF	LTE-FDD (SC-FDMA, 50% RB, 20 MHz, 16-QAM)	LTE-FDD	6.42	±9.6
10150	GAF	LTE-FDD (SC-FDMA, 50% RB, 20 MHz, 64-QAM)	LTE-FDD	6.60	±9.6
10151	CAH	LTE-TDD (SC-FDMA, 50% RB, 20 MHz, QPSK)	LTE-TDD	9.28	±9,6
0152	CAH	LTE-TDD (SC-FDMA, 50% RB, 20 MHz, 16-QAM)	LTE-TDD	9.92	±9.6
0153	CAH	LTE-TDD (SC-FDMA, 50% RB, 20 MHz, 64-QAM)	LTE-TDD	10.05	±9.6
0154	CAH	LTE-FDD (SC-FDMA, 50% RB, 10 MHz, QPSK)	LTE-FDD	5.75	±9.6
0155	CAH	LTE-FDD (SC-FDMA, 50% RB, 10 MHz, 16-QAM)	LTE-FDD	6.43	±9.6
	CAH	LTE-FDD (SC-FDMA, 50% RB, 5 MHz, QPSK)	LTE-FDD	5.79	±9.6
0157	CAH	LTE-FDD (SC-FDMA, 50% RB, 5MHz, 16-QAM)	LTE-FDD	6.49	±9,6
0150		LTE-FDD (SC-FDMA, 50% RB, 10 MHz, 64-QAM)	LTE-FDD	6.62	±9.6
0160	CAH	LTE-FDD (SC-FDMA, 50% RB, 5 MHz, 64-QAM)	LTE-FDD	8.56	±9.6
0161	CAF	LTE-FDD (SC-FDMA, 50% RB, 15 MHz, QPSK) LTE-FDD (SC-FDMA, 50% RB, 15 MHz, 16-QAM)	LTE-FDD	5.82	±9.6
0162	CAF	LTE-FDD (SC-FDMA, 50% RB, 15 MHz, 64-QAM)	LTE-FDD	6.43	±9.6
0166	CAG	LTE-FDD (SC-FDMA, 50% RB, 13 MHz, QPSK)	LTE-FDD	6.58	±9.6
0167	CAG	LTE-FDD (SC-FDMA, 50% RB, 1.4 MHz, 16-QAM)	LTE-FDD	5.46	+9.6
0168	CAG	LTE-FDD (SC-FDMA, 50% RB, 1.4 MHz, 64-QAM)	LTE-FDD	6.21	±9.6
0169	CAF	LTE-FDD (SC-FDMA, 1 RB, 20 MHz, OPSK)	LTE-FDD	6.79	+9.6
0170	CAF	LTE-FDD (SC-FDMA, 1 RB, 20 MHz, 16-QAM)	LTE-FDD LTE-FDD	5.73	±9.6
0171	AAF	LTE-FDD (SC-FDMA, 1 RB, 20 MHz, 64-QAM)	LTE-FDD	6.49	±9.6 ±9.6
0172	CAH	LTE-TDD (SC-FDMA, 1 RB, 20 MHz, QPSK)	LTE-TOD	9,21	
0173	CAH	LTE-TDD (SC-FDMA, 1 RB, 20 MHz, 16-QAM)	LTE-TOD	9.48	±9.6
0174	CAH	LTE-TDD (SC-FDMA, 1 RB, 20 MHz, 64-QAM)	LTE-TDD	10.25	±9.6
0175	CAH	LTE-FDD (SC-FDMA, 1 RB, 10 MHz, QPSK)	LTE-FDD	5.72	±9.6
0176	CAH	LTE-FDD (SC-FDMA, 1 RB, 10 MHz, 16-QAM)	LTE-FDD	6.52	±9.6
0177	CAJ	LTE-FDD (SC-FDMA, 1 RB, 5MHz, QPSK)	LTE-FDD	5.73	±9.6
0178	CAH	LTE-FDD (SC-FDMA, 1 RB, 5 MHz, 16-QAM)	LTE-FDD	6.52	±9.6
0179	CAH	LTE-FDD (SC-FDMA, 1 RB, 10 MHz, 64-QAM)	LTE-FDD	6.50	±9.6
0180	CAH	LTE-FDD (SC-FDMA, 1 RB, 5 MHz, 64-QAM)	LTE-FDD	6.50	+9.6
0181	CAF	LTE-FDD (SC-FDMA, 1 RB, 15MHz, QPSK)	LTE-FDD	5,72	±9.6
0182	CAF	LTE-FDD (SC-FDMA, 1 RB, 15 MHz, 16 QAM)	LTE-FDD	6.52	±9.6
0183	AAE	LTE-FDD (SC-FDMA, 1 RB, 15 MHz, 64-QAM)	LTE-FDD	6.50	±9.6
0184	CAF	LTE-FDD (SC-FDMA, 1 RB, 3 MHz, QPSK)	LTE-FDD	5.73	±9.6
0185	CAF	LTE-FDD (SC-FDMA, 1 RB, 3 MHz, 16-QAM)	LTE-FDD	6.51	±9.6
0186	AAF	LTE-FDD (SC-FDMA, 1 RB, 3 MHz, 64-QAM)	LTE-FDD	6.50	±9.6
0187	CAG	LTE-FDD (SC-FDMA, 1 RB, 1.4 MHz, QPSK)	LTE-FDD	5,73	±9.6
0188	CAG	LTE-FDD (SC-FDMA, 1 RB, 1.4 MHz, 16-QAM)	LTE-FDD	6.52	±9.6
0189	AAG	LTE-FDD (SC-FDMA, 1 RB, 1.4 MHz, 64-QAM)	LTE-FDD	6.50	±9.6
0193	CAD	IEEE 802.11n (HT Greenfield, 6.5 Mbps, BPSK)	WLAN	8.09	±9,6
0194	CAD	IEEE 802.11n (HT Greenfield, 39 Mbps, 16-QAM)	WLAN	8.12	±9.6
0195	CAD	IEEE 802.11n (HT Greenfield, 65 Mbps, 64-QAM)	WLAN	8.21	±9.6
0196	CAD	IEEE 802.11n (HT Mixed, 6.5 Mbps, BPSK)	WLAN	8.10	±9.6
0197	CAD	IEEE 802.11n (HT Mixed, 39 Mbps, 16-QAM)	WLAN	8.13	+9.6
3198	CAD	IEEE 802.11n (HT Mixed, 65 Mbps, 64-QAM)	WLAN	8.27	±9.6
219	CAD	IEEE 802.11n (HT Mixed, 7.2.Mbps, BPSK)	WLAN	8.03	±9.6
0220	CAD	IEEE 802.11n (HT Mixed, 43.3 Mbps, 16-QAM)	WLAN	B.13	±9.6
221	CAD	IEEE 802.11n (HT Mixed, 72.2 Mbps, 64-QAM)	WLAN	8.27	±9.6
0222	CAD	IEEE 802.11n (HT Mixed, 15 Mbps, BPSK)	WLAN	8.06	≈9.6
0223	CAD	IEEE 802.11n (HT Mixed, 90 Mbps, 16-QAM)	WLAN	8.48	±9.6
0224	CAD	IEEE 802.11n (HT Mixed, 150 Mbps, 64-QAM)	WLAN	8.08	±9.6

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10225	CAC	UMTS-FDD (HSPA+)	WCDMA.	5.97	±9,6
10226	CAC	LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, 16-QAM)	LTE-TOD	9.49	±9.6
10227	CAC	LTE-TDD (SC-FDMA, 1 RB. 1.4 MHz, 64-QAM)	LTE-TOD	10.26	±9.6
10228	CAC	LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, QPSK)	LTE-TDD	9.22	±9.6
10229	CAE	LTE-TDD (SC-FDMA, 1 RB, 3 MHz, 16-QAM)	LTE-TOD	9.48	±9.6
10230	CAE	LTE-TDD (SC-FDMA, 1 RB, 3 MHz, 64-QAM)	LTE-TDD	10.25	±9.6
10231	CAE	LTE-TDD (SC-FDMA, T RB, 3MHz, QPSK)	LTE-TDD	9.19	+9.6
10232	CAH	LTE-TDD (SC-FDMA, 1 RB, 5MHz, 16-QAM)	LTE-TDD	9,48	+9.6
10233	CAH	LTE-TDD (SC-FDMA, 1 RB, 5 MHz, 64-QAM)	LTE-TDD	10.25	±9.6
10234	CAH	LTE-TDD (SC-FDMA, 1 RB, 5 MHz, QPSK)	LTE-TDD	9.21	
10235	CAH	LTE-TDD (SC-FDMA, 1 RB, 10 MHz, 16-QAM)			±9.6
0236	CAH	LTE-TDD (SC-FDMA, 1 RB, 10 MHz, 64-QAM)	LTE-TOD	9.48	±9.6
0237	CAH	LTE-TDD (SC-FDMA, 1 RB, 10 MHz, 04-QAM)	LTE-TDD	10.25	±9.6
			LTE-TDD	9,21	±9.6
0238	CAG	LTE-TDD (SC-FDMA, 1 RB, 15 MHz, 16-QAM)	LTE-TDD	9.48	±9.6
0239	CAG	LTE-TDD (SC-FDMA, 1 RB, 15 MHz, 64-QAM)	LTE-TDD	10.25	+9.6
0240	CAG	LTE-TDD (SC-FDMA, 1 RB, 15 MHz, QPSK)	LTE-TDD	9,21	±9.6
0241	CAC	LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, 16-QAM)	LTE-TDD	9,82	+9.6
0242	CAC	LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, 64-QAM)	LTE-TDD	9.86	±9.6
0243	CAC	LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, QPSK)	LTE-TDD	9.46	±9.6
0244	CAE	LTE-TDD (SC-FDMA, 50% RB; 3 MHz, 16-QAM)	LTE-TDD	10.06	±9.6
0245	CAE	LTE-TDD (SC-FDMA, 50% RB; 3 MHz, 64-OAM)	LTE-TDD	10.06	+9.6
0246	CAE	LTE-TDD (SC-FDMA, 50% RB, 3 MHz, QPSK)	LTE-TDD	9.30	+9.6
0247	CAH	LTE-TDD (SC-FDMA, 50% RB, 5 MHz, 16-QAM)	LTE-TDD	9.91	±9.6
0248	CAH	LTE-TDD (SC-FDMA, 50% RB, 5 MHz, 64-QAM)	LTE-TDD	10.09	±9.6
0249	CAH	LTE-TDD (SC-FDMA, 50% RB, 5 MHz, QPSK)	LTE-TDD	9.29	±9.6
0250	CAH	LTE-TDD (SC-FDMA, 50% RB, 10 MHz, 16-QAM)	LTE-TDD	9.81	±9.6
0251	CAH	LTE-TDD (SC-FDMA, 50% RB, 10 MHz, 64-QAM)	LTE-TDD	10.17	
0252	CAH	LTE-TDD (SC-FDMA, 50% RB, 10 MHz, QPSK)	LTE-TDD	9.24	±9.6
0253	CAG	LTE-TDD (SC-FDMA, 50% RB, 15 MHz, 16-QAM)			±9.6
0254	CAG	LTE-TDD (SC-FDMA, 50% RB, 15 MHz, 64-QAM)	LTE-TDD	9.90	±9.6
0255	CAG	LTE-TDD (SC-FDMA, 50% RB, 15MHz, OPSK)	LTE-TDD	10.14	±9.6
0256	CAC	LTE-TDD (SC-FDMA, 100% BB, 1.4 MHz, 16-QAM)	LTE-TDD	9.20	±9.6
0257	CAC		LTE-TDD	9,96	±9.6
0258		LTE-TDD (SC-FDMA, 100% RB, 1,4 MHz, 64-QAM)	LTE-TDD	10.08	±9.8
_	CAC	LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, QPSK)	LTE-TDD	9.34	±9.6
0259	CAE	LTE-TDD (SC-FDMA, 100% RB, 3 MHz, 16-QAM)	LTE-TDD	9.98	±9.6
0260	CAE	LTE-TDD (SC-FDMA, 100% RB, 3 MHz, 54-QAM)	LTE-TDD	9.97	±9.6
0261	CAE	LTE-TDD (SC-FDMA, 100% RB, 3 MHz, QPSK)	LTE-TDD	9.24	±9.6
0262	CAH	LTE-TDD (SC-FDMA, 100% RB, 5 MHz, 16-QAM)	LTE-TDD	9.83	±9.6
0263	CAH	LTE-TDD (SC-FDMA, 100% RB, 5MHz, 64-QAM)	LTE-TDD	10.16	±9.6
0264	CAH	LTE-TDD (SC-FDMA, 100% RB, 5 MHz, QPSK)	LTE-TOD	9,23	+9.6
0265	CAH	LTE-TDD (SC-FDMA, 100% RB, 10 MHz, 16-QAM)	LTE-TDD	9.92	±9.6
0266	CAH	LTE-TDD (SC-FDMA, 100% RB, 10 MHz, 64-QAM)	LTE-TDD	10.07	+9.6
0267	CAH	LTE-TDD (SC-FDMA, 100% RB, 10 MHz, QPSK)	LTE-TDD	9.30	±9.6
0.268	CAG	LTE-TDD (SC-FDMA, 100% RB, 15 MHz, 16-QAM)	LTE-TDD	10.06	+9.6
0269	CAG	LTE-TDD (SC-FDMA, 100% RB, 15 MHz, 64-QAM)	LTE-TDD	10.08	±9.6
0270	CAG	LTE-TDD (SC-FDMA, 100% RB, 15 MHz, QPSK)	LTE-TDD	9.58	±9.6 ±9.6
0274	CAC	UMTS-FDD (HSUPA, Sublest 5, 3GPP Rel8.10)	WCDMA	4.87	
0275	CAC	UMTS-FDD (HSUPA, Sublest 5, 3GPP Rel8.4)	WCDMA		±9.6
0277	CAA	PHS (QPSK)	and the second se	3.96	±9.6
278	CAA	PHS (QPSK, BW 884 MHz, Rolloff 0.5)	PHS	11.81	±9.6
279	CAA	PHS (QPSK, BW 884 MHz, Rolloff 0.38)	PHS	11.81	=9.6
290	AAB	CDMA2000, RC1, SO55, Full Rate	PHS	12.18	29.6
0291	AAB		CDMA2000	3.91	±9.6
291	AAB	CDMA2000, RC3, SO55, Full Rate	CDMA2000	3.46	±9.6
		CDMA2000, RC3, SO32, Full Rate	CDMA2000	3.39	±9.6
293	AAB	CDMA2000, RC3, SO3, Full Rate	CDMA2000	3.50	±9.6
295	AAB	CDMA2000, RC1, SO3, 1/8th Rate 25 fr.	CDMA2000	12,49	±9.6
297	AAE	LTE-FDD (SC-FDMA, 50% RB, 20 MHz, QPSK)	LTE-FDD	5.81	±9.6
298	AAE	LTE-FDD (SC-FDMA, 50% RB, 3 MHz, QPSK)	LTE-FDD	5.72	±9.6
299	AAE	LTE-FDD (SC-FDMA, 50% RB, 3 MHz, 16-QAM)	LTE-FDD	6.39	+9.6
0300	AAE	LTE-FDD (SC-FDMA, 50% RB, 3 MHz, 64-OAM)	LTE-FDD	6.60	±9.6
0301	AAA	IEEE 802.16e WIMAX (29:18, 5 ms, 10 MHz, QPSK, PUSC)	WIMAX.	12.03	±9.6
302	AAA	IEEE 802 16e WIMAX (29:18, 5 ms, 10 MHz, QPSK, PUSC, 3 CTRL symbols)	WIMAX.	12.57	±9.6
0303	AAA	IEEE 802 16e WIMAX (31:15, 5 ms, 10 MHz, 64QAM, PUSC)	WIMAX	12.52	±9.6
	AAA	IEEE 802.16e WIMAX (29:18, 5 ms, 10 MHz, 64 QAM, PUSC)	WIMAX		
COMPE 1	1000 million (1000 million)		100WAA	11.86	±9.6
	AAA	IEEE 802.16e WIMAX (31:15, 10 ms, 10 MHz, 64QAM, PUSC, 15 symbols)	WIMAX	15.24	±9.6

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10307	AAA	IEEE 802.16e WIMAX (29:18, 10 ms, 10 MHz, QPSK, PUSC, 18 symbols)	WIMAX	14.49	±9.6
10308	AAA	IEEE 802 16e WiMAX (29:18, 10 ms, 10 MHz, 160AM, PUSC)	WIMAX	14.46	±9.6
10309	AAA	IEEE 802.16e WIMAX (29:18, 10 ms, 10 MHz, 16QAM, AMC 2x3, 18 symbols)	WIMAX	14.48	±9.6
10310	AAA	IEEE 802.16e WIMAX (29:18, 10 ms, 10 MHz, QPSK, AMC 2x3, 18 symbols)	WIMAX	14.50	-
10311	AAE	LTE-FDD (SC-FDMA, 100% RB, 15MHz, QPSK)			±9.6
10313	AAA	iDEN 1/3	LTE-FDD	6.06	±9.6
10314	AAA	IDEN 1:5	IDEN	10.51	±9.6
10315	AAB		IDEN	13,48	+9,6
10316		IEEE 802.11b WiFi 2.4 GHz (DSSS, 1 Mbps, 96pc duty cycle)	WLAN	1.71	±9.6
10317	AAB	IEEE 802.11g WIFI 2.4 GHz (ERP-OFDM, 6 Mbps, 96pc duty cycle)	WLAN	8.36	±9.6
10352		IEEE 802.11a WiFi 5 GHz (OFDM, 6 Mbps, 96pc duty cycle)	WLAN'	8.36	±9.6
_	AAA	Pulse Waveform (200Hz, 10%)	Generic	10.00	±9.6
10353	AAA	Pulse Waveform (200Hz, 20%)	Generic	6,99	±9.6
10354	AAA	Pulse Waveform (200Hz, 40%)	Generic	3,98	±9.6
0355	AAA	Pulse Waveform (200Hz, 60%)	Generic	2.22	±9.6
0356	AAA	Pulse Waveform (200Hz, 80%)	Generic	0.97	±9.6
0387	AAA	QPSK Waveform, 1 MHz	Generic	5.10	±9.6
0388	AAA	QPSK Waveform, 10 MHz	Generic	5,22	±9.6
0396	AAA	64-QAM Waveform, 100 kHz	Generic	6.27	±9.6
0399	AAA	64-OAM Waveform, 40 MHz	Generic	6.27	±9.6
0400	AAE	IEEE 802.11ac WiFi (20 MHz, 64-QAM, 99pc duty cycle)	WLAN	8.37	±9.6
0401	AAE	IEEE 802,11ac WiFi (40 MHz, 64-QAM, 99pc duty cycle)	WLAN	8.60	±9.6
0402	AAE	IEEE 802 11ac WiFi (80 MHz, 64-QAM, 99pc duty cycle)	WLAN	8.53	±9.6
0403	AAB	CDMA2000 (1xEV-DO, Rev. 0)	CDMA2000	3.76	±9.6
0404	AAB	CDMA2000 (1xEV-DO, Rev. A)	CDMA2000	3.77	±9.6
0406	AAB	CDMA2000, RC3, SO32, SCH0, Full Rate	GDMA2000	5.22	+9.6
0410	AAH	LTE-TDD (SC-FDMA, 1 RB, 10 MHz, QPSK, UL Subframe=2,3,4,7,8,9, Subframe Conf=4)	LTE-TDD	7.82	±9.6
0414	AAA	WLAN CCDF, 64-QAM, 40 MHz	Generic	8.54	-9.6
0415	AAA	IEEE 802.11b WiFi 2.4 GHz (DSSS, 1 Mbps, 99pc duty cycle)	WLAN	1.54	±9.6
0416	AAA	IEEE 802.11g WiFi 2.4 GHz (ERP-OFDM, 6 Mbps, 99pc duty cycle)	WLAN	8.23	+9.6
0417	AAG	IEEE 802.11a/h WiFi 5 GHz (OFDM, 6 Mbps, 99pc duty cycle)	WLAN	8.23	=9.6
0418	AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 6 Mbps, 99pc duty cycle, Long preambule)	WLAN	8.14	±9.6
0419	AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 6 Mbps, 99pc duty cycle, Short preambule)	WLAN	8.19	±9.6
0422	AAC	IEEE 802,11n (HT Greenfield, 7.2 Mbps, BPSK)	WLAN	8.32	+9.6
0423	AAC	IEEE 802.11n (HT Greenfield, 43.3 Mbps, 16-QAM)	WLAN	8.47	
0424	AAC	IEEE 802.11n (HT Greenfield, 72.2 Mbps, 64-QAM)	WLAN		±9.6
0425	AAC	IEEE 802.11n (HT Greenfield, 15 Mbps, BPSK)	WLAN	8,40	±9.6
0426	AAG	IEEE 802.11n (HT Greenfield, 90 Mbps, 16-QAM)		8,41	±9,6
0427	AAC	IEEE 802.11n (HT Greenfield, 150 Mbps, 64-QAM)	WLAN	8.45	+9.6
0430	AAE	LTE-FDD (OFDMA, 5MHz, E-TM 3.1)	WLAN	8.41	±9.6
0431	AAE	LTE-FDD (OFDMA, 10 MHz, E-TM 3.1)	LTE FDD	8.28	±9.6
0432	AAD	LTE-FDD (OFDMA, 15MHz, E-TM 3.1)	LTE-FDD	8.38	±9.6
0433	AAD	LTE-FDD (OFDMA, 13 MHz, E-1M 3.1)	LTE-FDD	8.34	±9.6
0433	AAB		LTE-FDD	8.34	±9.6
		W-CDMA (BS Test Model 1, 64 DPCH)	WCDMA	8.60	±9.6
0435	AAG	LTE-TDD (SC-FDMA, 1 RB, 20 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	LTE-TDD	7.82	±9.6
0447	AAE	LTE-FDD (OFDMA, 5 MHz, E-TM 3.1, Clipping 44%)	LTE-FDD	7.56	±9,6
0448	AAE	LTE-FDD (OFDMA, 10 MHz, E-TM 3.1, Clippin 44%)	LTE-FDD	7.53	±9.6
0449	AAD	LTE-FDD (OFDMA, 15 MHz, E-TM 3.1, Cliping 44%)	LTE-FDD	7.51	±9.6
0.450	AAD	LTE-FDD (OFDMA, 20 MHz, E-TM 3.1, Clipping 44%)	LTE-FDD	7.48	±9.6
0451	AAB	W-CDMA (BS Test Model 1, 64 DPCH, Clipping 44%)	WCDMA.	7.59	±9,6
0.453	AAE	Validation (Square, 10 ms, 1 ms)	Test	10.00	±9.6
0456	AAC	IEEE 802.11ac WiFi (160 MHz, 64-QAM, 99pc duty cycle)	WLAN	8.63	±9.6
0.457	AAB	UMTS-FDD (DC-HSDPA)	WGDMA	6.62	±9.6
0458	AAA	CDMA2000 (1xEV-DO, Rev. B. 2 carriers)	CDMA2000	6.55	±9.6
0459	AAA	CDMA2000 (1xEV-DO, Rev. B, 3 carriers)	CDMA2000	8.25	+9.6
0.460	AAB	UMTS-FDD (WCDMA, AMR)	WCDMA	2:39	±9.6
	AAC	LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, QPSK, UL Subframe=2,3,4.7,8,9)	LTE-TDD	7.82	±9.6
_	AAC	LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TOD	8.30	±9.6
0462		LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, 64-QAM, UL Subframe=2.3,4,7,8,9)	LTE-TDD	8.56	±9.6
0462	AAC		LTE-TDD	7.82	+9.6
0461 0462 0463 0464	AAC	LTE-TOD (SC-FDMA, TRB, 3 MHz, QPSK, UL Subtrame=2.3.4.7.8.9)			2010
0462 0463	AAD	LTE-TDD (SC-FDMA, 1 RB, 3 MHz, QPSK, UL Subirame=2,3,4,7,8,9) LTE-TDD (SC-FDMA, 1 RB, 3 MHz, 16-QAM, UL Subirame=2,3,4,7,8,9)	and the second se		3.04
0462 0463 0464	AAD	LTE-TDD (SC-FDMA, 1 RB, 3 MHz, 16-QAM, UL Subframe=2.3,4,7,8,9)	LTE-TDD	8.32	±9.6
0462 0463 0464 0465 0465	AAD AAD	LTE-TDD (SC-FDMA, 1 RB, 3 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9) LTE-TDD (SC-FDMA, 1 RB, 3 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD LTE-TDD	8.32 8.57	±9.6
0462 0463 0464 0465 0465 0466 0467	AAD AAD AAD	LTE-TDD (SC-FDMA, 1 RB, 3 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9) LTE-TDD (SC-FDMA, 1 RB, 3 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9) LTE-TDD (SC-FDMA, 1 RB, 5 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	LTE-TDD LTE-TDD LTE-TDD	8:32 8:57 7,82	±9.6 ±9.6
0462 0463 0464 0465	AAD AAD AAD AAG	LTE-TDD (SC-FDMA, 1 RB, 3 MHz, 16-QAM, UL Subframe=2.3,4,7,8,9) LTE-TDD (SC-FDMA, 1 RB, 3 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9) LTE-TDD (SC-FDMA, 1 RB, 5 MHz, QPSK, UL Subframe=2,3,4,7,8,9) LTE-TDD (SC-FDMA, 1 RB, 5 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD LTE-TDD LTE-TDD LTE-TDD	8:32 8:57 7:82 8:32	±9.6 ±9.6 ±9,6
0462 0463 0464 0465 0465 0466 0467 0468	AAD AAD AAD AAG AAG AAG	LTE-TDD (SC-FDMA, 1 RB, 3 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9) LTE-TDD (SC-FDMA, 1 RB, 3 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9) LTE-TDD (SC-FDMA, 1 RB, 5 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	LTE-TDD LTE-TDD LTE-TDD	8:32 8:57 7,82	±9.6 ±9.6

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UID	Rev	Communication System Name	Group	PAR (dB)	Unc ^E k =
10472	AAG	LTE-TDD (SC-FDMA, 1 RB, 10 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TOD	8.57	±9.6
10473	AAF	LTE-TDD (SC-FDMA, 1 RB, 15 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	LTE-TDD	7 82	±9.6
10474	AAF	LTE-TDD (SC-FDMA, 1 RB, 15 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TOD	8.32	+9.6
10475	AAF	LTE-TDD (SC-FDMA, 1 RB, 15 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.57	±9.6
0477	AAG	LTE-TDD (SC-FDMA, 1 RB, 20 MHz, 16-OAM, UL Subframe=2,3,4,7,8,9)	LTE-TOD	8.32	±9.6
0478	AAG	LTE-TDD (SC-FDMA, 1 RB, 20 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.57	±9.6
10479	AAC	LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, QPSK, UL Subframe=2.3,4,7.8,9)	LTE-TDD	7.74	+9.6
0480	AAC	LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.18	±9.6
10481	AAC	LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.45	±9.6
10482	AAD	LTE-TDD (SC-FDMA, 50% RB, 3 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	LTE-TDD	7.71	±9.6
0483	AAD	LTE-TDD (SC-FDMA, 50% RB, 3 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.39	19.6
0484	AAD	LTE-TDD (SC-FDMA, 50% RB, 3 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TOD	8.47	±9.6
0485	AAG	LTE-TDD (SC-FDMA, 50% RB, 5 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	LTE-TDD	7.59	±9.6
0486	AAG	LTE-TDD (SC-FDMA, 50% RB, 5 MHz, 16-OAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8,38	±9.6
0487	AAG	LTE-TDD (SC-FDMA, 50% RB, 5 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	B.60	+9.6
0488	AAG	LTE-TDD (SC-FDMA, 50% RB, 10 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	LTE-TDD	7.70	
0.489	AAG	LTE-TDD (SC-FDMA, 50% RB, 10 MHz, 16-QAM, UL Subfame=2.3,4,7,8,9)			±9.6
0490	AAG	LTE-TDD (SC-FDMA, 50% RB, 10 MHz, 64-QAM, UL Subtrame=2,3,4,7,8,9)	LTE-TDD	8.31	±9.6
0491	AAF		LTE-TDD	8.54	±9.6
	AAF	LTE-TDD (SC-FDMA, 50% RB, 15 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	LTE-TDD	7.74	±9.6
0492		LTE-TDD (SC-FDMA, 50% RB, 15 MHz, 16-OAM, UL Subirame=2,3,4,7,8,9)	LTE-TDD	8.41	+9.6
0493	AAF	LTE-TDD (SC-FDMA, 50% RB, 15 MHz, 64-OAM, UL Subframe=2.3,4,7,8,9)	LTE-TDD	8.55	±9.6
0494	AAG	LTE-TDD (SC-FDMA, 50% RB, 20 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	LTE-TDD	7.74	=9.6
0495	AAG	LTE-TDD (SC-FDMA, 50% RB, 20 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.37	±9.6
0.496	AAG	LTE-TDD (SC-FDMA, 50% RB, 20 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.54	±9.6
0497	AAC	LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, QPSK, UL Subframe=2.3,4,7,8,9)	LTE-TDD	7.67	±9.6
0498	AAG	LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDO	8.40	±9.6
0499	AAG	LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.68	±9.6
0500	AAD	LTE-TDD (SC-FDMA, 100% RB, 3 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	LTE-TOD	7.67	±9.6
0501	AAD	LTE-TDD (SC-FDMA, 100% RB, 3 MHz, 16-QAM, UL Subtrame=2,3,4,7,8,9)	LTE-TOD	B.44	±9.6
0.502	AAD	LTE-TDD (SC-FDMA, 100% RB, 3 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TOD	8.52	±9.6
0503	AAG	LTE-TOD (SC-FDMA, 100% RB, 5 MHz, QPSK, UL Subtrame=2,3,4,7,8,9)	LTE-TOD	7.72	±9.6
0504	AAG	LTE-TDD (SC-FDMA, 100% RB, 5 MHz, 16-QAM, UL Subframe=2,3.4,7,8,9)	LTE-TDD	8.31	±9.6
0505	AAG	LTE-TDD (SC-FDMA, 100% RB, 5 MHz, 64-QAM, UL Subtrame=2,3,4,7,8,9)	LTE-TDD	8.54	±9.6
10506	AAG	LTE-TDD (SC-FDMA: 100% RB, 10 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	LTE-TDD	7.74	±9.6
0507	AAG	LTE-TDD (SC-FDMA. 100% RB. 10 MHz, 16-QAM, UL Subframe=2.3,4,7,8,9)	LTE-TDD	8.36	±9.6
0 508	AAG	LTE-TDD (SC-FDMA, 100% RB, 10 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TOD	8.55	±9.6
0.509	AAF	LTE-TDD (SC-FDMA, 100% RB, 15 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	LTE-TOD	7.99	±9.6
0510	AAF	LTE-TDD (SC-FDMA, 100% RB, 15 MHz, 16-OAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.49	±9.6
0511	AAF	LTE-TDD (SC-FDMA, 100% RB, 15 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TOD	8:51	±9.6
0512	AAG	LTE-TDD (SC-FDMA, 100% RB, 20 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	LTE TOD	7.74	±9.6
0513	AAG	LTE-TDD (SC-FDMA, 100% RB, 20 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.42	+9.6
0514	AAG	LTE-TDD (SC-FDMA, 100% RB, 20 MHz, 64-QAM, UL Subframe=2:3:4.7.8.9)	LTE-TDD	8.45	±9.6
0515	AAA	IEEE 802,11b WIFi 2.4 GHz (DSSS, 2 Mbps, 99pc duty cycle)	WLAN	1.58	+9.6
0516	AAA	IEEE 802.11b WiFi 2.4 GHz (DSSS. 5.5 Mbps, 99pc duty cycle)	WLAN	1.57	±9.6
0517	AAA	IEEE 802.11b WiFi 2.4 GHz (DSSS, 11 Mbps, 99pc duty cycle)	WLAN	1.58	±9.6
0518	AAC	IEEE 802 11a/h WiFi 5 GHz (OFDM, 9 Mbps, 99pc duty cycle)	WLAN	8.23	±9.6 ±9.6
0519	AAC	IEEE 802.11a/h WiFi 5 GHz (OFDM, 12 Mbps, 99pc duty cycle)	WLAN	8.39	+9.6
0520	AAC	IEEE 802.11a/h WiFi 5 GHz (OFDM, 18 Mbps, 99pc duty cycle)	WLAN	8.12	
0521	AAC	IEEE 802.11a/h WiFi 5 GHz (OFDM, 24 Mbps, 99pc duty cycle)	WLAN	7.97	19.6
0522	AAC	IEEE 802.11a/h WiFi 5 GHz (OFDM: 36 Mbps, 99pc duty cycle)	WLAN		±9.6
0523	AAC	IEEE 802.11a/h WiFi 5 GHz (OFDM, 48 Mbps, 99pc duty cycle)		8.45	=9.6
0524	AAC	IEEE 802.11a/h WiFi 5 GHz (OFDM, 46 Mipps, 39pc duty cycle)	WLAN	8.08	±9.6
0.525	AAC	IEEE 802.11ac WiFi (20 MHz, MCS0, 99pc duty cycle)	WLAN	8.27	±9.6
0526	AAC	IEEE 802.11ac WiFi (20 MHz; MCS0, 99pc duty cycle)	WLAN	8.36	±9.6
0520	AAC	IEEE 802.11ac WiFi (20 MHz, MCS1, 99pc duty cycle)	WLAN	8.42	±9,6
0528	AAC	IEEE 802.11ac WiFI (20 MHz, MCS2, 99pc duty cycle)	WLAN	8,21	±9.6
0529	AAC		WLAN	8.36	±9,6
0531	and the state of the	IEEE 802.11ac WiFi (20 MHz, MCS4, 99pc duty cycle)	WLAN	8.36	±9.6
	AAC	IEEE 802.11ac WiFi (20 MHz, MCS6, 99pc duty cycle)	WLAN	8.43	±9.6
0532	AAC	IEEE 802.11ac WIFi (20 MHz, MCS7, 99pc duty cycle)	WLAN	8.29	±9.6
0533	AAC	IEEE 802.11ac WiFi (20 MHz, MCS8, 99pc duty cycle)	WLAN	8,38	±9.6
0534	AAC	IEEE 802.11ac WIFI (40 MHz, MCS0, 99pc duty cycle)	WLAN	8,45	±9.6
0.535	AAC	IEEE 802.11ac WiFi (40 MHz, MCS1, 99pc duty cycle)	WLAN	8.45	±9.6
0536	AAC	IEEE 802.11ac WiFi (40 MHz, MCS2, 99pc duty cycle)	WLAN	8.32	±9.6
0537	AAC	IEEE 802.11ac WiFi (40 MHz, MCS3, 99pc duty cycle)	WLAN	B.44	+9.6
0 538	AAC	IEEE 802.11ac WiFi (40 MHz, MCS4, 99pc duty cycle)	WLAN	8.54	±9.6
0540	AAC	IEEE 802.11ac WIFi (40 MHz, MCS6, 99pc duty cycle)	WLAN	8.39	±9.6

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10541	AAG	IEEE 802.11ac WiFi (40 MHz, MCS7, 99pc duty cycle)	WLAN	8.46	+9.6
10542	AAC	IEEE 802.11ac WiFi (40 MHz, MCS8, 99pc duty cycle)	WLAN	8.65	±9.6
10543	AAC	IEEE 802.11ac WiFi (40 MHz, MCS9, 99pc duty cycle)	WLAN	8.65	+9.6
10544	AAC	IEEE 802.11ac WiFi (80 MHz, MCS0, 99pc duty cycle)	WLAN	8.47	+9.6
10545	AAC	IEEE 802 11ac WiFi (80 MHz, MCS1, 99pc duty cycle)	WLAN	8.55	+9.6
10546	AAC	IEEE 802.11ac WiFi (80 MHz, MCS2, 99pc duty cycle)	WLAN	8.35	+9.6
10547	AAC	IEEE 802.11ac WiFi (80 MHz, MCS3, 99pc duty cycle)	WLAN	8.49	19.6
10548	AAC	IEEE 802.11ac WiFi (80 MHz, MCS4, 99pc duty cycle)	WLAN	8.37	±9.6
10550	AAC	IEEE 802.11ac WiFi (80 MHz, MCS4, 99pc duty cycle)	WLAN		
10551	AAC	IEEE 802.11ac WiFi (80 MHz, MCS7, 99pc duty cycle)	WLAN	8.38	±9.6
10552	AAG	IEEE 802.11ac WiFi (80 MHz, MCS8, 99pc duty cycle)		8:50	±9.6
10553	AAC	IEEE 802.11ac WiFi (80 MHz, MCS9, 99pc duty cycle)	WLAN	8.42	±9.6
10554	AAD	IEEE 802.11ac WiFi (160 MHz, MCS9, 99pc duty cycle)	WLAN	8:45	±9.6
10555	AAD		WLAN	8.48	±9,6
0.556	AAD	IEEE 802.11ac WiFi (160 MHz, MCS1, 99pc duty cycle)	WLAN	8.47	±9.6
		IEEE 802.11ac WiFi (160 MHz, MCS2, 99pc duty cycle)	WLAN	8,50	±9,6
0557	AAD	IEEE 802.11ac WiFi (160 MHz, MCS3, 99pc duty cycle)	WLAN	8,52	±9.6
0558	AAD	IEEE 802.11ac WiFi (160 MHz, MCS4, 99pc duty cycle)	WLAN.	B.61	±9,6
0560	AAD	IEEE 802.11ac WIFi (160 MHz, MCS6, 99pc duty cycle)	WLAN	8.73	±9,6
0561	AAD	IEEE 802 11ac WiFi (160 MHz, MCS7, 99pc duty cycle)	WLAN	8.56	=9.6
0562	AAD	IEEE 802.11ac WiFi (160 MHz, MCS8, 99pc duty cycle)	WLAN	8.69	±9.6
0563	AAD	IEEE 802.11ac WiFi (160 MHz, MCS9, 99pc duty cycle)	WLAN	8.77	±9.6
0564	AAA	IEEE 802.11g WIFI 2.4 GHz (DSSS-OFDM, 9 Mbps, 99pc duty cycle)	WLAN	8.25	±9.6
0565	AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 12 Mbps, 99pc duty cycle)	WLAN	8.45	±9.6
0566	AAA	IEEE 802.11g WIFI 2.4 GHz (DSSS-OFDM, 18 Mbps, 99pc duty cycle)	WLAN	8.13	±9.6
0567	AAA	IEEE 802.11g WIFI 2.4 GHz (DSSS-OFDM, 24 Mbps, 99pc duty cycle)	WLAN	8.00	±9.6
0568	AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 36 Mbps, 99pc duty cycle)	WLAN	8.37	±9.6
0569	AAA	IEEE 802.11g WIFI 2.4 GHz (DSSS-OFDM, 48 Mbps, 99pc duty cycle)	WLAN	8.10	±9.6
0570	AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 54 Mbps, 99pc duty cycle)	WLAN	8.30	±9.6
0571	AAA	IEEE 802 11b WiFi 2.4 GHz (DSSS, 1 Mbps, 90pc duty cycle)	WLAN	1.99	±9.6
0572	AAA	IEEE 802.11b WiFi 2.4 GHz (DSSS, 2 Mbps, 90pc duty cycle)	WLAN	1.99	
0573	AAA	IEEE 802 11b WiFi 2.4 GHz (DSSS, 5.5 Mbps, 90pc duty cycle)	WLAN		±9.6
0574	AAA	IEEE 802 11b WiFi 2.4 GHz (DSSS, 11 Mbps, 90pc duty cycle)		1.98	+9.6
0575	AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 6 Mbps, 90pc duty cycle)	WLAN	1.98	±9.6
0576	AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 9 Mbps, 90pc duty cycle)	WLAN	8.59	±9.6
0577	AAA		WLAN	8.60	±9,6
0578	AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 12 Mbps, 90pc duty cycle)	WLAN	8.70	±9.6
_		IEEE 802.11g WIFi 2 4 GHz (DSSS-OFDM, 18 Mbps, 90pc duty cycle)	WLAN	8.49	±9.6
0579	AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 24 Mbps, 90pc duty cycle)	WLAN	8.36	+9.6
0580	AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 36 Mbps, 90pc duty cycle)	WLAN	8.76	±9.6
0581	AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 48 Mbps, 90pc duty cycle)	WLAN	8.35	±9.6
0582	AAA	IEEE 802.11g WIFI 2.4 GHz (DSSS-OFDM, 54 Mbps, 90pc duty cycle)	WLAN	8.67	±9.6
0583	AAC	IEEE 802,11a/h WiFi 5 GHz (OFDM, 6 Mbps, 90pc duty cycle)	WLAN	8.59	± 9.6
0584	AAC	IEEE 802.11a/h WiFi 5 GHz (OFDM, 9 Mbps, 90pc duty cycle)	WLAN	8.60	±9.6
0585	AAC	IEEE 802.11a/h WiFi 5 GHz (OFDM, 12 Mbps, 90pc duty cycle)	WLAN	8.70	+9.6
0586	AAC	IEEE 802.11a/h WiFi 5 GHz (OFDM, 18 Mbps, 90pc duty cycle)	WLAN	8.49	±9.6
0587	AAC	IEEE 802.11a/h WiFi 5 GHz (OFDM, 24 Mbps, 90pc duty cycle)	WLAN	8.36	+9.6
0.588	AAC	IEEE 802.11a/h WiFi 5 GHz (OFDM, 36 Mbps, 90pc duty cycle)	WLAN	8.76	±9.6
0589	AAC	IEEE 802.11a/h WiFi 5 GHz (OFDM, 48 Mbps, 90pc duty cycle)	WLAN	8.35	±9.6
0.590	AAC	IEEE 802.11a/h WiFi 5 GHz (OFDM, 54 Mbps, 90pc duty cycle)	WLAN	8.67	±9.6
0591	AAC	IEEE 802.11n (HT Mixed, 20 MHz, MCS0, 90pc duty cycle)	WLAN	8.63	±9.6
0.592	AAG	IEEE 802.11n (HT Mixed, 20 MHz, MGS1, 90pc duty cycle)	WLAN	8.79	±9.6
0 5 9 3	AAC	IEEE 802.11n (HT Mixed, 20 MHz, MCS2, 90pc duty cycle)	WLAN	8.64	±9.6
0 594	AAC	IEEE 802.11n (HT Mixed, 20 MHz, MCS3, 90pc duty cycle)	WLAN	8.74	
0 595	AAC	IEEE 802.11n (HT Mixed, 20 MHz, MCS4, 90pc duty cycle)	WLAN		±9.6
0 596	AAC	IEEE 802.11n (HT Mixed, 20 MHz, MCS5, 90pc duty cycle)		8.74	±9.6
0 597	AAC	IEEE 802.11n (HT Mixed, 20 MHz, MCS6, 90pc duty cycle)	WLAN	8.71	+9.6
598	AAC	IEEE 802.11n (HT Mixed, 20 MHz, MCS5, 90pc duty cycle)	WLAN	8.72	±9.6
0599	AAC	IEEE 802.11n (HT Mixed, 40 MHz, MCS7, 90pc duty cycle)	WLAN	8.50	+9.6
0600	AAC		WLAN	8.79	±9.6
		IEEE 802.11n (HT Mixed, 40 MHz, MCS1, 90pc duty cycle)	WLAN	8.88	±9.6
0601	AAC	IEEE 802 11n (HT Mixed, 40 MHz, MCS2, 90pc duty cycle)	WLAN	8.82	±9,6
0 602	AAC	IEEE 802 11n (HT Mixed, 40 MHz, MCS3, 90pc duty cycle)	WLAN	8.94	±9.6
0603	AAC	IEEE 802.11n (HT Mixed, 40 MHz, MCS4, 90pc duty cycle)	WLAN	9.03	±9,6
0604	AAC	IEEE 802.11n (HT Mixed, 40 MHz, MCS5, 90pc duty cycle)	WLAN	8.76	±9.6
0.605	AAC	IEEE 802.11n (HT Mixed, 40 MHz, MCS6, 90pc duty cycle)	WLAN	8.97	±9.6
0606	AAC	IEEE 802 11n (HT Mixed, 40 MHz, MCS7, 90pc duty cycle)	WLAN	8.62	+96
0607	AAC	IEEE 802.11ac WiFi (20 MHz, MCS0, 90pc duty cycle)	WLAN	8.64	±9.6
0608	AAC	IEEE 802.11ac WiFi (20 MHz, MCS1, 90pc duty cycle)	WLAN	8.77	±9.6

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UID	Rev	Communication System Name	Group	PAR (dB)	$Unc^E k =$
10609	AAC	IEEE 802.11ac WiFi (20 MHz, MCS2, 90pc duty cycle)	WLAN	8.57	±9.6
10610	AAC	JEEE 802.11ac WiFi (20 MHz, MCS3, 90pc duty cycle)	WLAN	8.78	±9.6
10611	AAC	IEEE 802.11ac WiFi (20 MHz, MCS4, 90pc duty cycle)	WLAN	8.70	±9.6
10612	AAC	IEEE 802.11ac WiFi (20 MHz, MCS5, 90pc duty cycle)	WLAN.	8.77	±9.6
10613	AAC	IEEE 802.11ac WIFi (20 MHz, MCS6, 90pc duty cycle)	WLAN	8.94	±9.6
10614	AAC	IEEE 802.11ac WiFi (20 MHz, MCS7, 90pc duty cycle)	WLAN	8.59	±9.6
10615	AAC	IEEE 802.11ac WiFi (20 MHz, MCS8, 90pc duty cycle)	WLAN	8.82	±9.6
10616	AAC	IEEE 802.11ac WiFi (40 MHz, MCS0, 90pc duty cycle)	WLAN	8.82	±9.6
10617	AAC	IEEE 802.11ac WiFi (40 MHz, MCS1, 90pc duty cycle)	WLAN	8.81	±9.6
10618	AAC	IEEE 802.11ac WiFi (40 MHz, MCS2, 90pc duty cycle)	WLAN	8.58	±9.6
10619	AAC	IEEE 802.11ac WiFi (40 MHz, MCS3, 90pc duty cycle)	WLAN	8.86	
0620	AAC		WLAN	8.87	±9.6
10621	AAC	IEEE 802.11ac WiFi (40 MHz, MCS4, 90pc duty cycle)			±9.6
	AAC	IEEE 802.11ac WiFi (40 MHz, MCS5, 90pc duty cycle)	WLAN	8.77	+9.6
10622	1.000	IEEE 802.11ac WiFi (40 MHz, MCS6, 90pc duty cycle)	WLAN	8.68	±9.6
0623	AAC	IEEE 802.11ac WiFI (40 MHz, MCS7, 90pc duty cycle)	WLAN	B.82	+9.6
0624	AAC	IEEE 802.11ac WiFi (40 MHz, MCS8, 90pc duty cycle)	WLAN	8.96	±9,6
0625	AAC	IEEE 802.11ac WiFI (40 MHz, MCS9, 90pc duty cycle)	WLAN	8.96	±9.6
0626	AAC	IEEE 802.11ac WiFI (80 MHz, MCS0, 90pc duty cycle)	WLAN	8.83	±9.6
0627	AAC	IEEE 802.11ac WiFi (80 MHz, MCS1, 90pc duty cycle)	WLAN	8.88	±9,6
0628	AAC	IEEE 802.11ac WiFi (80 MHz, MCS2, 90pc duty cycle)	WLAN	8.71	±9,6
0.629	AAC	IEEE 802.11ac WiFi (80 MHz, MCS3, 90pc duty cycle)	WLAN	8.85	±9.6
0.630	AAC	IEEE 802.11ac WiFi (80 MHz, MCS4, 90pc duty cycle)	WLAN	8.72	±9.6
0631	AAC	IEEE 802.11ac WiFi (80 MHz, MCS5, 90pc duty cycle)	WLAN	8.81	±9.6
0632	AAC	IEEE 802,11ac WiFi (80 MHz, MCS6, 90pc duty cycle)	WLAN	8.74	±9.6
0633	AAC	IEEE 802 11ac WiFi (80 MHz, MCS7, 90pc duty cycle)	WLAN	8.83	±9.6
0634	AAC	IEEE 802.11ac WiFi (80 MHz, MCS8, 90pc duty cycle)	WLAN.	8,80	+9.6
0.635	AAC	IEEE 802 11ac WIFi (80 MHz, MCS9, 90pc duty cycle)	WLAN	8.81	±9.6
0636	AAD	IEEE 802.11ac WiFi (160 MHz, MCS0, 90pc duty cycle)	WLAN	8,83	±9.6
0637	AAD	IEEE 802.11ac WiFi (160 MHz, MCS1, 90pc duty cycle)	WLAN	8,79	±9.6
0638	AAD	IEEE 802 11ac WiFi (160 MHz, MCS2, 90pc duty cycle)	WLAN		
0.639	AAD	IEEE 802.11ac WiFi (160 MHz, MCS2, 30pc duty cycle)		8,86	±9.6
0640	AAD		WLAN.	8.85	±9.6
0.641	AAD	IEEE 802.11ac WIFi (160 MHz, MCS4, 90pc duty cycle)	WLAN	8.98	±9.6
Last the second		IEEE 802 11ac WiFi (160 MHz, MCS5, 90pc duty cycle)	WLAN	9.06	±9.6
0642	AAD	IEEE 802.11ac WiFi (160 MHz, MCS6, 90pc duty cycle)	WLAN	9.06	±9.6
0643	AAD	IEEE 802.11ac WiFi (160 MHz, MCS7, 90pc duty cycle)	WLAN	8.89	±9.6
0644	AAD	IEEE 802.11ac WiFi (160 MHz, MCS8, 90pc duty cycle)	WLAN	9.05	±9.6
0645	AAD	IEEE 802.11ac WiFi (160 MHz, MCS9, 90pc duty cycle)	WLAN	9.11	±9.6
0.646	AAH	LTE-TDD (SC-FDMA, 1 RB, 5 MHz, OPSK, UL Subframe=2,7)	LTE-TDD	11.96	±9,6
0647	AAG	LTE-TDD (SC-FDMA, 1 RB, 20 MHz, QPSK, UL Subframe=2,7)	LTE-TDD	11.96	-9.6
0648	AAA	CDMA2000 (1x Advanced)	CDMA2000	3.45	±9.6
0652	AAF	LTE-TDD (OFDMA, 5MHz, E-TM 3.1, Clipping 44%)	LTE-TDD	6.91	±9.6
0653	AAF	LTE-TDD (OFDMA, 10 MHz, E-TM 3.1, Clipping 44%)	LTE-TDD	7.42	±9.6
0654	AAE	LTE-TDD (OFDMA, 15 MHz, E-TM 3.1, Clipping 44%)	LTE-TDD	6.96	+9.6
0655	AAF	LTE-TDD (OFDMA, 20 MHz, E-TM 3.1, Clipping 44%)	LTE-TOD	7.21	±9.6
0658	AAB	Pulse Waveform (200Hz, 10%)	Test	10.00	+9.6
0659	AAB	Pulse Waveform (200Hz, 20%)	Test	6.99	±9.6
0660	AAB	Pulse Waveform (200Hz, 40%)	Test	3.98	±9.6
0661	AAB	Pulse Waveform (200Hz, 60%)	Test	2.22	+9.6
0662	AAB	Pulse Waveform (200Hz, 80%)	Test	0.97	±9.6
0670	AAA	Bluetooth Low Energy	Bluetooth	2.19	±9.6
0671		IEEE 802.11ax (20 MHz, MCS0, 90pc duty cycle)			
0672	AAC	IEEE 802.11ax (20 MHz, MCSU, 90pc duty cycle)	WLAN	9.09	±9.6
0673	AAC	IEEE 802.11ax (20 MHz, MCS1, 90pc duty cycle)	WLAN	8,57	±9.6
0674	AAC		WLAN	8.78	±9.6
		IEEE 802.11ax (20 MHz, MCS3, 90pc duty cycle)	WLAN	8.74	±9.6
0675	AAC	IEEE 802.11ax (20 MHz, MCS4, 90pc duty cycle)	WLAN	8.90	±9.6
0676	AAC	IEEE 802.11ax (20 MHz, MCS5, 90pc duty cycle)	WLAN	8.77	±9.6
0677	AAC	IEEE 802.11ax (20 MHz. MCS6, 90pc duty cycle)	WLAN	8.73	±9.6
0678	AAC	IEEE 802.11ax (20 MHz, MCS7, 90pc duty cycle)	WLAN	8.78	± 9.6
0679	AAC	IEEE 802.11ax (20 MHz, MCS8, 90pc duty cycle)	WLAN	8.89	±9,6
0680	AAC	IEEE 802 11ax (20 MHz, MCS9, 90pc duty cycle)	WLAN	8.80	±9.6
0.681	AAC	IEEE 802.11ax (20 MHz, MCS10, 90pc duty cycle)	WLAN	8.62	±9,6
0682	AAC	IEEE 802.11ax (20 MHz, MCS11, 90pc duty cycle)	WLAN	8.83	±9.6
0.683	AAC	IEEE 802.11ax (20 MHz, MCS0, 99pc duty cycle)	WLAN	8.42	±9,6
0684	AAG	IEEE 802.11ax (20 MHz_MCS1, 99pc duty cycle)	WLAN	8.26	±9.6
0685	AAC	IEEE 802.11ax (20 MHz, MCS2, 99pc duty cycle)	WLAN	8.33	±9.6
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10687	AAC	IEEE 802.11ax (20 MHz, MCS4, 99pc duty cycle)	WLAN	8.45	±9.6
10688	AAC	IEEE 802,11ax (20 MHz; MCS5, 99pc duty cycle)	WLAN	8.29	+9.6
10689	AAC	IEEE 802.11ax (20 MHz. MCS6, 99pc duty cycle)	WLAN	8.55	±9.6
10690	AAC	IEEE 802.11ax (20 MHz, MCS7, 99pc duty cycle)	WLAN	8.29	±9,6
10691	AAC	IEEE 802.11ax (20 MHz, MCS8, 99pc duty cycle)	WLAN	8.25	±9.6
10692	AAC	JEEE 802.11ax (20 MHz, MCS9, 99pc duty cycle)	WLAN	8.29	±3.6
10693	AAC	IEEE 802.11ax (20 MHz, MCS10, 99pc duty cycle)			
10694	AAC		WLAN	8.25	±9.6
10695	AAC	IEEE 802.11ax (20 MHz, MCS11, 99pc duty cycle)	WLAN	8.57	±9.6
10696	AAC	IEEE 802.11ax (40 MHz, MCS0, 90pc duty cycle)	WLAN	8.78	±9.6
		IEEE 802.11ax (40 MHz, MCS1, 90pc duty cycle)	WLAN.	8.91	₹9.6
0697	AAC	IEEE 802.11ax (40 MHz, MCS2, 90pc duty cycle)	WLAN	8,61	±9.6
0698	AAC	IEEE 802.11ax (40 MHz, MCS3, 90pc duty cycle)	WLAN	8,89	±9.6
0699	AAC	IEEE 802.11ax (40 MHz, MCS4, 90pc duty cycle)	WLAN	8.82	±9.6
0700	AAC	IEEE 802.11ax (40 MHz, MCS5, 90pc duty cycle)	WLAN	8,73	±9.6
0701	AAC	IEEE 802.11ax (40 MHz, MCS6, 90pc duty cycle)	WLAN	8.86	±9.6
0702	AAC	IEEE 802.11ax (40 MHz, MCS7, 90pc duty cycle)	WLAN	8.70	±9.6
0703	AAC	IEEE 802.11ax (40 MHz, MCS8, 90pc duty cycle)	WLAN	8.82	±9.6
0.704	AAC	IEEE 802.11ax (40 MHz, MCS9, 90pc duty cycle)	WLAN	8.56	±9.6
0705	AAC	IEEE 802.11ax (40 MHz, MCS10, 90pc duty cycle)	WLAN	8.69	+9.6
0706	AAC	IEEE 802.11ax (40 MHz, MCS11, 90pc duty cycle)	WLAN	8.66	±9.6
0707	AAG	IEEE 802.11ax (40 MHz, MCS0, 99pc duty cycle)	WLAN	8.32	±9.6
0708	AAC	IEEE 802,11ax (40 MHz, MCS1, 99pc duty cycle)	WLAN	8.55	±9.6
0709	AAC	IEEE 802.11ax (40 MHz, MCS2, 99pc duly cycle)	WLAN	8.33	±9.6
0710	AAG	IEEE 802,11ax (40 MHz, MCS3, 99pc duty cycle)	WLAN	8.29	±9.6
0711	AAC	IEEE 802 11ax (40 MHz, MCS4, 99pc duty cycle)	WLAN	8.39	±9.6
0712	AAC	IEEE 802 11ax (40 MHz, MCS5, 99pc duty cycle)	WLAN	8.67	±9.6
0713	AAC	IEEE 802.11ax (40 MHz, MCS6, 99pc duty cycle)	WLAN		
0714	AAC	IEEE 802.11ax (40 MHz, MCS7, 99pc duty cycle)		8.33	±9.6
0715	AAC	IEEE 802.11ax (40 MHz, MCS8, 99pc duty cycle)	WLAN	8.26	±9.6
0716	AAC		WLAN	8.45	±9.6
0717		IEEE 802.11ax (40 MHz, MCS9, 99pc duty cycle)	WLAN	8.30	±9.6
-	AAC	IEEE 802.11ax (40 MHz, MCS10, 99pc duty cycle)	WLAN	8.48	±9.6
0718	AAC	IEEE 802.11ax (40 MHz, MCS11, 99pc duty cycle)	WLAN	8:24	±9.6
0719	AAC	IEEE 802.11ax (80 MHz, MCS0, 90pc duty cycle)	WLAN	8.81	+9.6
0720	AAC	IEEE 802.11ax (80 MHz, MCS1, 90pc duty cycle)	WLAN	8.87	±9.6
0721	AAC	IEEE 802.11ax (80 MHz, MCS2, 90pc duty cycle)	WLAN	8.76	±9.6
0722	AAC	IEEE 802.11ax (80 MHz, MCS3, 90pc duty cycle)	WLAN	8.55	±9.6
0723	AAC	IEEE 802 11ax (80 MHz, MCS4, 90pc duty cycle)	WLAN	8.70	±9.6
0724	AAC	IEEE 802.11ax (80 MHz, MCS5, 90pc duty cycle)	WLAN	8,90	±9.6
0725	AAC	IEEE 802.11ax (80 MHz, MCS6, 90pc duty cycle)	WLAN	8.74	±9.6
0726	AAC	IEEE 802.11ax (80 MHz, MCS7_90pc duty cycle)	WLAN	8.72	±9.6
0727	AAC	IEEE 802.11ax (80 MHz, MCS8, 90pc duty cycle)	WLAN	8.66	±9.6
0728	AAC	IEEE 802.11ax (80 MHz, MCS9, 90pc duty cycle)	WLAN.	8.65	+9.6
0729	AAC	IEEE 802.11ax (80 MHz, MCS10, 90pc duty cycle)	WLAN	8,64	+9.6
0730	AAC	IEEE 802.11ax (80 MHz; MCS11, 90pc duty cycle)	WLAN	8.67	±9.6
0731	AAG	IEEE 802.11ax (80 MHz, MCS0, 99pc duty cycle)	WLAN	8.42	
0732	AAC	IEEE 802.11ax (80 MHz, MCS1, 99pc duty cycle)	WLAN	8.46	±9.6
0733	AAC	IEEE 802.11ax (80 MHz, MCS2, 99pc duty cycle)	WLAN		±9.6
0734	AAC	IEEE 802,11ax (80 MHz, MCS3, 99pc duty cycle)	WLAN	8.40	±9.6
0735	AAC	IEEE 802.11ax (80 MHz, MCS3, 99pc duty cycle)		8.25	±9,6
	AAC	IEEE 802.11ax (80 MHz, MCS5, 99pc duty cycle)	WLAN	8.33	±9.6
0737	AAC	IEEE 802.11ax (80 MHz, MCS5, 99pc duty cycle)	WLAN	8.27	±9.6
0738	AAC		WLAN	8.35	±9.6
0739	the second se	IEEE 802.11ax (80 MHz, MCS7, 99pc duty cycle)	WLAN	8.42	±9.6
	AAC	IEEE 802.11ax (80 MHz, MCS8, 99pc duty cycle)	WLAN	8.29	±9.6
0740	AAG	IEEE 802.11ax (80 MHz, MCS9, 99pc duty cycle)	WLAN	8,48	±9,6
0741	AAC	IEEE 802 11ax (80 MHz, MCS10, 99pc duty cycle)	WLAN	8.40	±9.6
0742	AAG	IEEE 802.11ax (80 MHz, MCS11, 99pc duty cycle)	WLAN	8.43	±9.6
0743	AAC	IEEE 802 11ax (160 MHz, MCS0, 90pc duty cycle)	WLAN	8.94	±9.6
0744	AAC	IEEE 802.11ax (160 MHz, MCS1, 90pc duty cycle)	WLAN	9.16	±9,6
0745	AAC	IEEE 802.11ax (160.MHz, MCS2, 90pc duty cycle)	WLAN	8.93	±9.6
0746	AAC	IEEE 802 11ax (160 MHz, MCS3, 90pc duty cycle)	WLAN	9.11	±9.6
0747	AAC	IEEE 802.11ax (160 MHz, MCS4, 90pc duty cycle)	WLAN	9.04	±9.6
0748	AAC	IEEE 802.11ax (160 MHz, MCS5, 90pc duty cycle)	WLAN	8.93	±9.6
0749	AAC	IEEE 802.11ax (160 MHz, MCS6, 90pc duly cycle)	WLAN	8.90	±9.6
0750	AAC	IEEE 802.11ax (160 MHz, MCS7, 90pc duty cycle)	WLAN	8.79	
0751	AAC	IEEE 802.11ax (160 MHz, MCS8, 90pc duty cycle)	WLAN	8.82	±9.6 ±9.6
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10753	AAC	IEEE 802.11ax (160 MHz, MCS10, 90pc duty cycle)	WLAN	9.00	±9.6
10754	AAC	IEEE 802.11ax (160 MHz, MCS11, 90pc duty cycle)	WLAN	8.94	±9.6
10755	AAC	IEEE 802.11ax (160 MHz, MCS0, 99pc duty cycle)	WLAN	8.64	±9.6
10756	AAC	IEEE 802.11ax (160 MHz, MCS1, 99pc duty cycle)	WLAN	8.77	±9.6
0757	AAC	IEEE 802.11ax (160 MHz, MCS2, 99pc duty cycle)	WLAN	8.77	±9.6
0758	AAC	IEEE 802_11ax (160 MHz, MCS3, 99pc duty cycle)	WLAN	8.69	±9.6
0759	AAC	IEEE 802.11ax (160 MHz, MCS4, 99pc duty cycle)	WLAN	8.58	±9.6
0760	AAC	IEEE 802.11ax (160 MHz, MCS5, 99pc duty cycle)	WLAN	8.49	±9.6
0761	AAC	IEEE 802.11ax (160 MHz, MCS6, 99pc duty cycle)	WLAN	8.58	+9.6
0.762	AAC	IEEE 802 11ax (160 MHz, MCS7, 99pc duty cycle)	WLAN	8.49	±9.6
0763	AAC	IEEE 802.11ax (160 MHz, MCS8, 99pc duty cycle)	WLAN	8.53	±9.6
0764	AAC	IEEE 802_11ax (160 MHz, MCS9, 99pc duty cycle)	WLAN	8.54	±9.6
0765	AAC	IEEE 802.11ax (160 MHz, MCS10, 99pc duty cycle)	WLAN	8.54	±9.6
0766	AAC	IEEE 802.11ax (160 MHz, MCS11, 99pc duty cycle)	WLAN	8.51	±9,6
0767	AAE	5G NR (CP-OFDM, 1 RB, 5 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	7.99	±9.6
0768	AAD	5G NR (CP-OFDM, 1 RB, 10 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.01	±9.6
0769	AAD	5G NR (CP-OFDM, 1 RB, 15 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.01	±9.6
0770	AAD	5G NR (CP-OFDM, 1 RB, 20 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.02	±9.6
0771	AAD	5G NR (CP-OFDM, 1 RB, 25 MHz, OPSK, 15 kHz)	5G NR FR1 TDD	8.02	±9,6
0772	AAD	5G NR (CP-OFDM, 1 RB, 30 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.23	±9.6
0773	AAD	5G NR (CP-OFDM, 1 RB, 40 MHz, OPSK, 15 kHz)	5G NR FR1 TDD	8.03	±9.6
0774	AAD	5G NR (CP-OFDM, 1 RB, 50 MHz, OPSK, 15 kHz)	5G NR FR1 TDD	8.02	±9.6
0775	AAD	5G NR (CP-OFDM, 50% RB, 5MHz, OPSK, 15kHz)	5G NR FR1 TDD	8.31	±9.6
0777	AAG	5G NR (CP-OFDM, 50% RB, 10 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.30	±9.6
0778	AAD	5G NR (CP-OFDM, 50% RB, 15 MHz, QPSK, 15 KHz)	5G NR FR1 TDD	8.30	±9.6
0779	AAC	5G NR (CP/OFDM, 50% RB, 20 MHz, OPSK, 15 kHz)	5G NR FR1 TDD	8.34	±9.6
0780	AAD	5G NR (CP-OFDM, 50% RB, 25 MHz, OPSK, 15 kHz)	5G NR FR1 TDD	8.42	±9.6
0781	AAD	5G NR (CP-OFDM, 50% RB, 30 MHz, QPSK, 15 kHz) 5G NR (CP-OFDM, 50% RB, 40 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.38	±9.6
0782	AAD	5G NR (CP-OFDM, 50% RB, 50 MHz, OPSK, 15 KHz)	5G NR FR1 TDD	8.38	+9.6
0783	AAE	5G NR (CP-OFDM, 50% RB, 50 MHz, QPSK, 15 KHz) 5G NR (CP-OFDM, 100% RB, 5 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.43	±9/6
0784	AAD	5G NR (CP-OFDM, 100% RB; 10 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8:31	±9.6
0785	AAD	5G NR (CP-OFDM, 100% RB, 15 MHz, OPSK, 15 KHz)	5G NR FR1 TDD	8.29	±9.6
0786	AAD	5G NR (CP-OFDM, 100% RB, 20 MHz, OPSK, 15 kHz)	5G NR FR1 TDD	8.40	+9,6
0787	AAD	5G NR (CP-OFDM, 100% RB, 25 MHz, QPSK, 15 kHz)	5G NR FR1 TDD 5G NR FR1 TDD	8.35	±9.6
0788	AAD	5G NR (CP-OFDM, 100% RB, 30 MHz, QPSK, 15 KHz)	5G NR FR1 TDD	8.39	+9.6
0789	AAD	5G NR (CP-OFDM, 100% RB, 40 MHz, QPSK, 15 kHz)	5G NR FRI TDD	8.39	±9.6
0790	AAD	5G NR (CP-OFDM, 100% RB, 50 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.39	+9.6
0791	AAE	5G NR (CP-OFDM, 1 RB, 5 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	7.83	±9.6
0792	AAD	5G NR (CP-OFDM, 1 RB, 10 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	7.92	±9.6
0793	AAD	5G NR (CP-OFDM, 1 RB, 15 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	7.95	±9.6
0794	AAD	5G NR (CP-OFDM, 1 FIB, 20 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	7.82	±9.6
0795	AAD	5G NR (CP-OFDM, 1 RB, 25 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	7.84	±9.6
0796	AAD	5G NR (CP-OFDM, 1 RB, 30 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	7.82	±9.6
0797	AAD	5G NR (CP-OFDM, 1 RB, 40 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	8.01	±9.6
0798	AAD	5G NR (CP-OFDM, 1 RB, 50 MHz, QPSK, 30 kHz)	5G.NR FR1 TDD	7.89	±9.6
0 799	AAD	5G NR (CP-OFDM, 1 RB, 60 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	7.93	+9.6
0801	AAD	5G NR (CP-OFDM, 1 RB, 80 MHz, OPSK, 30 kHz)	5G NR FR1 TDD	7.89	±9.6
0802	AAD	5G NR (CP-OFDM, 1 RB, 90 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	7.87	±9.6
0803	AAD	5G NR (CP-OFDM, 1 RB, 100 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	7.93	±9.6
0805	AAD	5G NR (CP-OFDM, 50% RB, 10 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	8.34	±9.6
0806	AAD	5G NR (CP-OFDM, 50% RB, 15 MHz, OPSK, 30 kHz)	5G NR FR1 TDD	8.37	+9.6
9080	AAD	5G NR (CP-OFDM, 50% RB, 30 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	8.34	±9.6
0810	AAD	5G NR (CP-OFDM, 50% RB, 40 MHz, OPSK, 30 kHz)	5G NR FR1 TDD	8.34	±9.6
0812	AAD	5G NR (CP-OFDM, 50% RB, 60 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	8.35	±9.6
0817	AAE	5G NR (CP-OFDM, 100% RB, 5 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	8,35	±9.6
818	AAD	5G NR (CP-OFDM, 100% RB, 10 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	8.34	±9.6
0819	AAD	5G NR (CP-OFDM, 100% RB, 15 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	8.33	±9,6
0820	AAD	5G NR (CP-OFDM, 100% RB, 20 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	8.30	±9.6
0821	AAD	5G NR (CP-OFDM, 100% RB, 25 MHz, OPSK, 30 kHz)	5G NR FR1 TDD	8.41	±9.6
0822	AAD	5G NR (CP-OFDM, 100% RB, 30 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	8.41	±9.6
0823	AAD	5G NR (CP-OFDM, 100% RB, 40 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	8.36	±9.6
0824	AAD	5G NR (CP-OFDM, 100% RB, 50 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	8.39	±9.6
0825	AAD	5G NR (CP-OFDM, 100% RB, 60 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	8.41	+9.6
0827	AAD	5G NR (CP-OFDM, 100% RB, 80 MHz, OPSK, 30 kHz).	5G NR FR1 TDD	8.42	±9.6
1828	AAD	5G NR (CP-OFDM, 100% RB, 90 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	8.43	±9.6

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10829	AAD	5G NR (CP-OFDM, 100% RB, 100 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	8.40	+9.6
10830	AAD	5G NR (CP-OFDM, 1 RB, 10 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	7.63	+9.6
10831	AAD	5G NR (CP-OFDM, 1 RB, 15 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	7.73	+9.6
10832	AAD	5G NR (CP-OFDM, 1 RB, 20 MHz, OPSK, 60 kHz)	5G NB FR1 TDD	7.74	+9.6
10833	AAD	5G NR (CP-OFDM, 1 RB, 25 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	7.70	±9.6
10834	AAD	5G NR (CP-OFDM, 1 RB, 30 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	7.75	±9.6
10835	AAD	5G NR (CP-OFDM, 1 RB, 40 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	7.70	
10836	AAD	5G NR (CP-OFDM, 1 RB, 50 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	7.66	=9.6
10837	AAD	5G NR (CP-OFDM, 1 RB, 60 MHz, QPSK, 60 kHz)			±9.6
10839	AAD	5G NR (CP-OFDM, 1 RB, 80 MHz, QPSK, 60 kHz)	5G NR FR1 TDD 5G NR FR1 TDD	7.68	±9.6
0840	AAD	5G NR (CP-OFDM, 1 RB, 90 MHz, OPSK, 60 KHz)		7.70	±9.6
0841	AAD	5G NR (CP-OFDM, 1 RB, 100 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	7.67	±9,6
0843	AAD	5G NR (CP-OFDM, 50% RB, 15 MHz, OPSK, 60 kHz)	5G NR FR1 TDD	7.71	±9.6
0844	AAD	5G NR (CP-OFDM, 50% RB, 20 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	8.49	±9.6
0846	AAD	5G NR (CP-OFDM, 50% RB, 30 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	8,34	±9.6
0854	AAD		5G NR FR1 TDD	8,41	±9.6
0855	AAD	5G NR (CP-OFDM, 100% RB, 10 MHz, OPSK, 60 kHz)	5G NR FR1 TDD	8.34	±9.6
0856		5G NR (CP-OFDM, 100% RB, 15 MHz, OPSK, 60 kHz)	5G NR FR1 TDD	8,36	±9.6
	AAD	5G NR (CP-OFDM, 100% RB, 20 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	8,37	±9.6
0857	AAD	5G NR (CP-OFDM, 100% RB, 25 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	8.35	±9.6
0858	AAD	5G NR (CP-OFDM, 100% RB, 30 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	8.36	±9.6
0859	AAD	5G NR (CP-OFDM, 100% RB, 40 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	8.34	+9,6
0860	AAD	5G NR (CP-OFDM, 100% RB, 50 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	8.41	±9.6
0861	AAD	5G NR (CP-OFDM, 100% RB, 60 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	8.40	+9.6
0863	AAD	5G NR (CP-OFDM, 100% RB, 80 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	8.41	±9.6
0864	AAD	5G NR (CP-OFDM, 100% RB, 90 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	8.37	±9.6
0865	AAD	5G NR (CP-OFDM, 100% RB, 100 MHz, OPSK, 60 kHz)	5G NR FR1 TDD	8.41	±9.6
0866	AAD	5G NR (DFT-s-OFDM, 1 RB, 100 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.68	±9.6
0868	AAD	5G NR (DFT-s-OFDM, 100% RB, 100 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.89	±9.6
0869	AAE	5G NR (DFT-s-OFDM, 1 RB, 100 MHz, QPSK, 120 kHz)	5G NR FR2 TDD	5.75	±9.6
0870	AAE	5G NR (DFT-s-OFDM, 100% RB, 100 MHz, QPSK, 120 kHz)	5G NR FR2 TDD	5.86	±9.6
0871	AAE	5G NR (DFT-s-OFDM, 1 RB, 100 MHz, 16QAM, 120 kHz)	5G NR FR2 TDD	5.75	±9.6
0872	AAE	5G NR (DFT-s-OFDM, 100% RB, 100 MHz, 16QAM, 120 kHz)	5G NR FR2 TDD	6.52	
0873	AAE	5G NR (DFT-s-OFDM, 1 RB, 100 MHz, 64QAM, 120 kHz)	5G NR FR2 TDD	6.61	±9.6
0874	AAE	5G NR (DFT-s-OFDM, 100% RB, 100 MHz, 64QAM, 120 kHz)	5G NR FR2 TDD		+9.6
0875	AAE	5G NR (CP-OFDM, 1 RB, 100 MHz, OPSK, 120 kHz)		6.65	±9.6
0876	AAE	5G NR (CP-OFDM, 100% RB, 100 MHz, OPSK, 120 kHz)	5G NR FR2 TDD	7.78	±9.6
0877	AAE	5G NR (CP-OFDM, 1 RB, 100 MHz, 160AM, 120 kHz)	5G NR FR2 TDD	8,39	±9.6
0878	AAE	5G NR (CP-OFDM, 100% RB, 100 MHz, 160AM, 120 kHz)	5G NR FR2 TDD	7.95	±9.6
3879	and the second	5G NR (CP OFDM, 1 RB, 100 MHz, 64QAM, 120 KHz)	5G NR FR2 TDD	8,41	±9.6
0880		5G NR (CP-OFDM, 100% RB, 100 MHz, 64QAM, 120 kHz)	5G NR FR2 TDD	8.12	±9.6
0881		5G NR (DFT-s-OFDM, 1 RB, 50 MHz, QPSK, 120 KHz)	5G NR FR2 TDD	8.38	±9.6
882		5G NR (DFT-s-OFDM, 100% RB, 50 MHz, QPSK, 120 kHz)	5G NR FR2 TDD	5.75	±9,6
883		5G NR (DFT-S-OFDM, 10078 HB, 50 MHz, 160AM, 120 kHz)	5G NR FR2 TDD	5.96	±9.6
884			5G NR FR2 TDD	6.57	±9.6
885		5G NR (DFT-s-OFDM, 100% RB, 50 MHz, 160AM, 120 kHz)	5G NR FR2 TDD	6.53	±9.6
1886		5G NR (DFT-s-OFDM, 1 RB, 50 MHz, 64QAM, 120 kHz)	5G NR FR2 TDD	6.61	±9.6
887	AAE	5G NR (DFT-s-OFDM, 100% RB, 50 MHz, 64QAM, 120 kHz)	5G NR FR2 TDD	6.65	±9.6
		5G NR (CP-OFDM, 1 RB, 50 MHz, OPSK, 120 kHz)	5G NR FR2 TDD	7.78	±9.6
		5G NR (CP-OFDM, 100% RB, 50 MHz, OPSK, 120 kHz)	5G NR FR2 TDD	8.35	±9.6
	AAE	5G NR (CP-OFDM, 1 RB, 50 MHz, 16QAM, 120 KHz)	5G NR FR2 TDD	8.02	±9.6
	AAE	5G NR (CP-OFDM, 100% RB, 50 MHz, 16QAM, 120 kHz)	5G NR FR2 TDD	8.40	±9.6
	AAE	5G NR (CP/OFDM, 1 RB, 50 MHz, 64QAM, 120 kHz)	5G NR FR2 TDD	8.13	±9.6
		5G NR (CP-OFDM, 100% RB, 50 MHz, 64QAM, 120 kHz)	5G NR FR2 TDD	8.41	±9.6
		5G NR (DFT-s-OFDM, 1 RB, 5 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.66	±9.6
		5G NR (DFT-s-OFDM, 1 RB, 10 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.67	±9.6
and the second second		5G NR (DFT-s-OFDM, 1 RB, 15 MHz, QPSK, 30 kHz)	5G NR FR1 TOD	5.67	±9.6
		5G NR (DFT:s-QFDM, 1 RB, 20 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.68	±9.6
-		5G NR (DFT-s-OFDM, 1 RB, 25 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.68	+9.6
		5G NR (DFT-s-OFDM, 1 RB, 30 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.68	±9.6
		5G NR (DFT-s-OFDM, 1 RB, 40 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.68	±9.6
	AAB	5G NR (DFT-s-OFDM, 1 RB, 50 MHz, OPSK, 30 kHz)	5G NR FRI TDD	5.68	±9.6
905		5G NR (DFT-s-OFDM, 1 RB, 60 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.68	±9.6
906		5G NR (DFT-s-OFDM, 1 RB, 80 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.68	
907		5G NR (DFT-s-OFDM, 50% RB, 5 MHz, QPSK, 30 KHz)	5G NR FR1 TDD	5.78	±9.6
908		5G NR (DFT-s-OFDM, 50% RB, 10 MHz, OPSK, 30 KHz)	5G NR FR1 TDD		±9.6
909		5G NR (DFT-s-OFDM, 50% RB, 15 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.93	+9,6
_		5G NR (DFT-s-OFDM, 50% RB, 20 MHz, OPSK, 30 kHz)	5G NR FR1 TDD	5.96 5.83	±9.6 ±9.8

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10911	AAB	5G NR (DFT-s-OFDM, 50% RB, 25 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.93	±8.6
10912	AAB	5G NR (DFT-s-OFDM, 50% RB, 30 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.84	±9.6
10913	AAB	5G NR (DFT-s-OFDM, 50% RB, 40 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.84	±9.6
10914	AAB	5G NR (DFT-s-OFDM, 50% RB, 50 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.85	±9.6
10915	AAB	5G NR (DFT-s-OFDM, 50% RB, 60 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.83	±9.6
10916	AAB	5G NR (DFT-5-OFDM, 50% RB, 80 MHz, OPSK, 30 kHz)	5G NR FR1 TDD	5.87	±9.6
10917	-	5G NR (DFT-s-OFDM, 50% RB, 100 MHz, OPSK, 30 kHz)	5G NB FR1 TDD		-
10918	-	5G NR (DFT-s-OFDM, 100% RB, 5 MHz, QPSK, 30 kHz)		5.94	±9.6
10919	-	5G NR (DFT-s-OFDM, 100% RB, 10 MHz, QPSK, 30 kHz)	5G NR FA1 TDD	5.86	±9,6
0920	AAB	5G NR (DFT-s-OFDM, 100% RB, 15 MHz, QPSK, 30 KHz)	5G NR FR1 TDD	5.86	±9.6
10921	AAB	5G NR (DFT-s-OFDM, 100% RB, 20 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.87	±9.6
0922	AAB	5G NB (DFT-s-OFDM, 100% RB, 25 MHz, QPSK, 30 KHz)	5G NR FR1 TDD	5.84	±9.6
0923	AAB	5G NR (DFT-s-OFDM, 100% RB, 30 MHz, QPSK, 30 KHz)	56 NR FR1 TDD	5.82	±9.6
0924	AAB	5G NR (DFT-s-OFDM, 100% RB, 40 MHz, QPSK, 30 KHz)	5G NR FR1 TDD	5.84	±9.6
0925	AAB	and the second se	5G NR FR1 TDD	5.84	±9.6
0926	AAB	5G NR (DFT:s-OFDM, 100% RB, 50 MHz, OPSK, 30 kHz)	5G NR FR1 TDD	5.95	±9.6
0927	-	5G NR (DFT-s-OFDM, 100% RB, 60 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.84	±9.6
_	AAB	5G NR (DFT-s-OFDM, 100% RB, 80 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.94	±9.6
0.928	AAG	5G NR (DFT-s-OFDM, 1 RB, 5 MHz, QPSK, 15 kHz)	5G NR FR1 FDD	5.52	±9.6
0929	AAC	5G NR (DFT-s-OFDM, 1 RB, 10 MHz, QPSK, 15 kHz)	5G NR FR1 FDD	5.52	±9.6
0930	AAC	5G NR (DFT-s-OFDM, 1 RB, 15 MHz, QPSK, 15 kHz)	5G NR FR1 FDD	5.52	±9.6
0931	AAC	5G NR (DFT-s-OFDM, 1 RB, 20 MHz, QPSK, 15 kHz)	5G NR FR1 FDD	5.51	±9.6
0932	AAC	5G NR (DFT-s-OFDM, 1 RB, 25 MHz, QPSK, 15 kHz)	5G NR FR1 FDD	5,51	±9.6
0933	AAC	5G NR (DFT-s-OFDM, 1 RB, 30 MHz, QPSK, 15 kHz)	5G NR FR1 FDD	5.51	±9.6
0934	AAC	5G NR (DFT-s-OFDM, 1 RB, 40 MHz, QPSK, 15 kHz)	5G NR FR1 FDD	5,51	±9.6
0935	AAD	5G NR (DFT-s-OFDM, 1 RB, 50 MHz, QPSK, 15 kHz)	5G NB FR1 FDD	5.51	±9.6
0936	AAC	5G NR (DFT-s-OFDM, 50% RB, 5MHz, QPSK, 15kHz)	5G NR FR1 FDD	5.90	+9.6
0937	AAC	5G NR (DFT-s-OFDM, 50% RB, 10 MHz, OPSK, 15 kHz)	5G NR FR1 FDD	5.77	±9.6
0938	AAC	5G NR (DFT-s-OFDM, 50% RB, 15 MHz, QPSK, 15 kHz)	5G NR FR1 FDD	5.90	±9.6
0.939	AAC	5G NR (DFT-s-OFDM, 50% RB, 20 MHz, QPSK, 15 kHz)	5G NR FR1 FDD	5.82	±9.6
0940	AAC	5G NR (DFT-s-OFDM, 50% RB, 25 MHz, QPSK, 15 kHz)	5G NR FR1 FDD	5.89	±9.6
0941	AAC	5G NR (DFT-s-OFDM, 50% RB, 30 MHz, OPSK, 15 kHz)	5G NR FR1 FDD	5.83	±9.6
0942	AAC	5G NR (DFT-s-OFDM, 50% RB, 40 MHz, QPSK, 15 kHz)	5G NR FR1 FDD	5.85	±9.6
0943	AAD	5G NR (DFT-s-OFDM, 50% RB, 50 MHz, QPSK, 15 kHz)	5G NR-FR1 FDD	5.95	
0944	AAC	5G NR (DFT-s-OFDM, 100% RB, 5 MHz, QPSK, 15 kHz)	5G NR FR1 FDD	5.81	±9.6
0945	AAC	5G NR (DFT-s-OFDM, 100% RB, 10 MHz, QPSK, 15 kHz)	5G NR FR1 FDD		±9.6
946	AAC	5G NR (DFT-s-OFDM, 100% RB, 15 MHz, QPSK, 15 kHz)		5.85	±9.6
947	AAC	5G NR (DFT-s-OFDM, 100% RB, 20 MHz, QPSK, 15 kHz)	5G NR FR1 FDD	5.83	±9.6
1948	AAC	5G NR (DFT-s-OFDM, 100% RB, 25 MHz, QPSK, 15 kHz)	5G NR FR1 FDD	5.87	+9.6
949	AAC	5G NR (DFT-s-OFDM, 100% RB, 30 MHz, QPSK, 15 kHz)	5G NR FR1 FDD	5.94	±9.6
950	AAC	5G NR (DFT-s-OFDM, 100% RB, 40 MHz, QPSK, 15kHz)	5G NR FR1 FDD	5.87	+9.6
951	AAD	5G NR (DFT-s-OFDM, 100% RB, 50 MHz, QPSK, 15 kHz)	5G NR FR1 FDD	5,94	±9.6
952	AAA	5G NR DL (CP-OFDM, TM 3.1, 5MHz, 64-QAM, 15kHz)	5G NR FR1 FDD	5.92	±9,6
953	AAA		5G NR FR1 FDD	8,25	± 9.6
954		5G NR DL (CP-OFDM, TM 3.1, 10 MHz, 64-OAM, 15 kHz)	5G NR FR1 FDD	8.15	±9.6
955	AAA	5G NR DL (CP-OFDM, TM 3.1, 15 MHz, 64-QAM, 15 kHz)	5G NR FR1 FDD	8,23	±9.6
	AAA	5G NR DL (CP-OFDM, TM 3.1, 20 MHz, 64-OAM, 15 kHz)	5G NR FR1 FDD	8.42	±9.6
956	AAA	5G NR DL (CP-OFDM, TM 3.1, 5 MHz, 64-QAM, 30 kHz)	5G NR FR1 FDD	8.14	±9,6
957	AAA	5G NR DL (CP-OFDM, TM 3.1, 10 MHz, 64-QAM, 30 kHz)	5G NR FR1 FDD	8.31	±9.6
958	AAA	5G NR DL (CP-OFDM, TM 3.1, 15 MHz, 64-OAM, 30 kHz)	5G NR FR1 FDD	8,61	±9.6
959	AAA	5G NR DL (CP-OFDM, TM 3.1, 20 MHz, 64-QAM, 30 kHz)	5G NR FR1 FDD	8.33	±9.6
960	AAC	5G NR DL (CP-OFDM, TM 3.1. 5MHz, 64-QAM, 15kHz)	SG NR FR1 TDD	9.32	±9.6
961	AAB	5G NR DL (CP-OFDM, TM 3.1, 10 MHz, 64-QAM, 15 kHz)	5G NR FR1 TDD	9.36	±9.6
962	AAB	5G NR DL (CP-OFDM, TM 3.1, 15 MHz, 64-QAM, 15 kHz)	5G NR FR1 TDD	9.40	±9.6
963	AAB	5G NR DL (CP-OFDM, TM 3.1, 20 MHz, 64-QAM, 15 kHz)	5G NR FR1 TDD	9.55	±9.6
964	AAC	5G NR DL (CP-OFDM, TM 3.1, 5 MHz, 64-QAM, 30 kHz)	5G NR FR1 TDD	9.29	±9.6
965	AAB	5G NR DL (CP-OFDM, TM 3.1, 10 MHz, 64-QAM, 30 kHz)	5G NR FR1 TDD	9.37	±9.6
966	AAB	5G NR DL (CP-OFDM, TM 3.1, 15 MHz, 64-QAM, 30 kHz)	5G NR FR1 TDD	9.55	±9.6
967	AAB	5G NR DL (CP-OFDM, TM 3.1, 20 MHz, 64-QAM, 30 kHz)	5G NR FR1 TDD	9.42	+9.6
968	AAB	5G NR DL (CP-OFDM, TM 3.1, 100 MHz, 64-QAM, 30 kHz)	5G NR FR1 TDD	9.49	19.6
972	AAB	5G NR (CP-OFDM, 1 RB, 20 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	11.59	
973	AAB	5G NR (DFT-s-OFDM, 1 RB, 100 MHz, QPSK, 30 kHz)	5G NR FR1 TDD		+9.6
974	AAB	5G NR (CP-OFDM, 100% RB, 100 MHz, 256-QAM, 30 kHz)		9.06	±9,6
978	AAA	ULLA BDR	5G NR FR1 TDD	10.28	±9.6
979	AAA	ULLA HDR4	ULLA	1.18	±9,6
980	AAA	ULLA HDR8	ULLA	8.58	±9.6
981	AAA	ULLA HDRp4	ULLA	10.32	±9.6
982	AAA	ULLA HDRp8	ULLA	3.19	±9.6
ALLE	Anta	oren Unsiho	ULLA	3.43	±9.6

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10983	AAA	5G NR DL (CP-OFDM, TM 3.1, 40 MHz, 64-QAM, 15 kHz)	5G NR FR1 TDD	9,31	19.6
10984	AAA	5G NR DL (CP-OFDM, TM 3.1, 50 MHz, 64-QAM, 15 kHz)	5G NR FR1 TDD	9.42	+9.6
10985	AAA	5G NR DL (CP-OFDM, TM 3.1, 40 MHz, 64-QAM, 30 kHz)	5G NR FR1 TDD	9.54	±9.6
10986	AAA	5G NR DL (CP-OFDM, TM 3.1, 50 MHz, 64-QAM, 30 kHz)	5G NR FR1 TDD	9.50	±9/6 ±9/6
10987	AAA	5G NR DL (CP-OFDM, TM 3.1, 60 MHz, 64-QAM, 30 kHz)	5G NR FR1 TDD	9.53	+9.6
10988	AAA.	5G NR DL (CP-OFDM, TM 3.1, 70 MHz, 64-QAM, 30 kHz)	5G NR FR1 TDD	9.38	+9.6
10989	AAA	5G NR DL (CP-OFDM, TM 3.1, 80 MHz, 64-QAM, 30 kHz)	5G NR FR1 TDD	9.30	+9.6
10990	AAA.	5G NR DL (CP-OFDM, TM 3.1, 90 MHz, 64-QAM, 30 kHz)	5G NR FR1 TDD	9.52	
11003	AAA	5G NR DL (CP-OFDM, TM 3.1, 30 MHz, 64-QAM, 15 kHz)	5G NR FR1 TDD	10.24	±9.6
11004	AAA	5G NR DL (CP-OFDM, TM 3.1, 30 MHz, 64-QAM, 30 KHz)	5G NB FB1 TDD	10.73	±9.6
11005	AAA	5G NR DL (CP-OFDM, TM 3.1, 25 MHz, 64-QAM, 15 kHz)	5G NR FR1 FDD	8.70	±9.6
11006	AAA	5G NR DL (CP-OFDM, TM 3.1, 30 MHz, 64-QAM, 15 kHz)	5G NR FR1 FDD		±9,6
11007	AAA	5G NR DL (CP-OFDM, TM 3.1, 40 MHz, 64-QAM, 15 kHz)	5G NR FR1 FDD	8.55	±9.6
11008	AAA	5G NR DL (CP-OFDM, TM 3.1, 50 MHz, 64-QAM, 15 kHz)	5G NR FR1 FDD	8.46	±9.6
11009	AAA	5G NR DL (CP-OFDM, TM 3.1, 25 MHz, 64-QAM, 30 kHz)	SG NR FR1 FDD	8.51	±9,6
11010	AAA	5G NR DL (CP-OFDM, TM 3.1, 30 MHz, 64-QAM, 30 kHz)	5G NR FR1 FDD	8.76	±9.6
11011	AAA	5G NR DL (CP-OFDM, TM 3.1, 40 MHz, 64-QAM, 30 kHz)	5G NR FR1 FDD	8.95	±9.6
11012	AAA	5G NR DL (CP-OFDM, TM 3.1, 50 MHz, 64-QAM, 30 kHz)	5G NR FR1 FDD	8.96	±9,6
11013	AAA	IEEE 802.11be (320 MHz. MCS1, 99pc duty cycle)	WLAN	8.68	±9.6
11014	AAA	IEEE 802.11be (320 MHz, MCS2, 99pc duty cycle)	WLAN	8.47	±9.6
11015	AAA	IEEE 802.11be (320 MHz. MCS3, 99pc duty cycle)	WLAN	8.45	±9,6
11016	AAA	TEEE 802.11be (320 MHz, MCS4, 99pc duty cycle)	WLAN	8.44	±9.6
11017	AAA	IEEE 802.11be (320 MHz. MCS5, 99pc duty cycle)	WLAN	B.44	±9.6
11018	AAA	IEEE 802.11be (320 MHz, MCS6, 99pc duty cycle)	WLAN	8.41	±9.6
11019	AAA	IEEE 802.11be (320 MHz, MCS7, 99pc duty cycle)		8.40	±9,6
11020	AAA	IEEE 802.11be (320 MHz, MCS8, 99pc duty cycle)	WLAN.	8.29	+9.6
11021	AAA	IEEE 802.11be (320 MHz, MCS9, 99pc duty cycle)	WLAN WLAN	8.27	±9,6
1022	AAA	IEEE 802.11be (320 MHz, MCS10, 99pc duty cycle)		8.46	±9.6
1023	AAA	IEEE 802.11be (320 MHz, MCS11, 99pc duty cycle)	WLAN.	8.36	±9,6
1024	AAA	IEEE 802.11be (320 MHz, MCS12, 99pc duty cycle)	WLAN	8.09	+9.6
11025	AAA	IEEE 802.11be (320 MHz, MCS13, 99pc duty cycle)	WLAN	8.42	±9.6
1026	AAA	IEEE 802.11be (320 MHz, MCS0, 99pc duty cycle)	WLAN	8.37	±9.6
		and the second state only system	WLAN	8.39	±9.6

^E Uncertainty is determined using the max. deviation from linear response applying rectangular distribution and is expressed for the square of the field value.

Certificate No: EX-7368_Nov23

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APPENDIX B. – Dipole Calibration Data



Calibration Laboratory of

Schmid & Partner

Client Dt&C

Engineering AG Zeughausstrasse 43, 8004 Zurich, Switzerland

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Schweizerischer Kalibrierdienst Service suisse d'étalonnage

- С Servizio svizzero di taratura s
 - Swiss Calibration Service

Accreditation No.: SCS 0108

Certificate No. CLA13-1030_Nov23

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Object	CLA13 - SN: 103	30	
Calibration procedure(s)	QA CAL-15.v10 Calibration Proce	edure for SAR Validation Sources	below 700 MHz
Calibration date:	November 14, 20	023	
The measurements and the uncert	tainties with confidence p ed in the closed laborator	onal standards, which realize the physical uni robability are given on the following pages an ry facility: environment temperature (22 ± 3)°C	d are part of the certificate.
Primary Standards	ID#	Cal Date (Certificate No.)	Scheduled Calibration
Power meter NRP2 Power sensor NRP-Z91 Power sensor NRP-Z91 Reference 20 dB Attenuator Type-N mismatch combination Reference Probe EX3DV4 DAE4	SN: 104778 SN: 103244 SN: 103245 SN: CC2552 (20x) SN: 310982 / 06327 SN: 3877 SN: 654	30-Mar-23 (No. 217-03804/03805) 30-Mar-23 (No. 217-03804) 30-Mar-23 (No. 217-03805) 30-Mar-23 (No. 217-03809) 30-Mar-23 (No. 217-03810) 06-Jan-23 (No. EX3-3877_Jan23) 27-Jan-23 (No. DAE4-654_Jan23)	Mar-24 Mar-24 Mar-24 Mar-24 Mar-24 Mar-24 Jan-24 Jan-24
Power sensor NRP-Z91 Power sensor NRP-Z91 Reference 20 dB Attenuator Type-N mismatch combination Reference Probe EX3DV4	SN: 103244 SN: 103245 SN: CC2552 (20x) SN: 310982 / 06327 SN: 3877	30-Mar-23 (No. 217-03804/03805) 30-Mar-23 (No. 217-03804) 30-Mar-23 (No. 217-03805) 30-Mar-23 (No. 217-03809) 30-Mar-23 (No. 217-03810) 06-Jan-23 (No. EX3-3877_Jan23) 27-Jan-23 (No. DAE4-654_Jan23)	Mar-24 Mar-24 Mar-24 Mar-24 Jan-24 Jan-24
Power sensor NRP-Z91 Power sensor NRP-Z91 Reference 20 dB Attenuator Type-N mismatch combination Reference Probe EX3DV4 DAE4	SN: 103244 SN: 103245 SN: CC2552 (20x) SN: 310982 / 06327 SN: 3877 SN: 654	30-Mar-23 (No. 217-03804/03805) 30-Mar-23 (No. 217-03804) 30-Mar-23 (No. 217-03805) 30-Mar-23 (No. 217-03809) 30-Mar-23 (No. 217-03810) 06-Jan-23 (No. EX3-3877_Jan23)	Mar-24 Mar-24 Mar-24 Mar-24 Mar-24 Jan-24
Power sensor NRP-Z91 Power sensor NRP-Z91 Reference 20 dB Attenuator Type-N mismatch combination Reference Probe EX3DV4 DAE4 Secondary Standards Power meter NRP2 Power sensor NRP-Z91 Power sensor NRP-Z91 RF generator HP 8648C	SN: 103244 SN: 103245 SN: CC2552 (20x) SN: 310982 / 06327 SN: 3877 SN: 654 ID # SN: 107193 SN: 100922 SN: 100418 SN: US3642U01700	30-Mar-23 (No. 217-03804/03805) 30-Mar-23 (No. 217-03804) 30-Mar-23 (No. 217-03804) 30-Mar-23 (No. 217-03805) 30-Mar-23 (No. 217-03810) 06-Jan-23 (No. 217-03810) 06-Jan-23 (No. DAE4-654_Jan23) 27-Jan-23 (No. DAE4-654_Jan23) Check Date (in house) 08-Nov-21 (in house check Dec-22) 15-Dec-09 (in house check Dec-22) 01-Jan-04 (in house check Dec-22) 04-Aug-99 (in house check Jun-22)	Mar-24 Mar-24 Mar-24 Mar-24 Jan-24 Jan-24 Jan-24 Scheduled Check In house check: Dec-24 In house check: Dec-24 In house check: Dec-24 In house check: Jun-24

Certificate No: CLA13-1030_Nov23

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Calibration Laboratory of Schmid & Partner

Engineering AG Zeughausstrasse 43, 8004 Zurich, Switzerland



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

Accreditation No.: SCS 0108

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

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%.

Certificate No: CLA13-1030_Nov23

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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	53.4 ± 6 %	0.71 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	0.497 W/kg
SAR for nominal Head TSL parameters	normalized to 1W	0.516 W/kg ± 18.4 % (k=2)
SAP averaged ever 10 cm3 (10 c) of Head TSI	and they	
	condition	
SAR averaged over 10 cm ³ (10 g) of Head TSL SAR measured	condition 1 W input power	0.313 W/kg

Certificate No: CLA13-1030_Nov23

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Appendix (Additional assessments outside the scope of SCS 0108)

Antenna Parameters with Head TSL

Impedance, transformed to feed point	46.0 Ω + 0.9 jΩ
Return Loss	- 27.4 dB

Additional EUT Data

Manufactured by	SPEAG
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Certificate No: CLA13-1030_Nov23

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DASY5 Validation Report for Head TSL

Date: 14.11.2023

Test Laboratory: SPEAG, Zurich, Switzerland

DUT: CLA13; Type: CLA13; Serial: CLA13 - SN: 1030

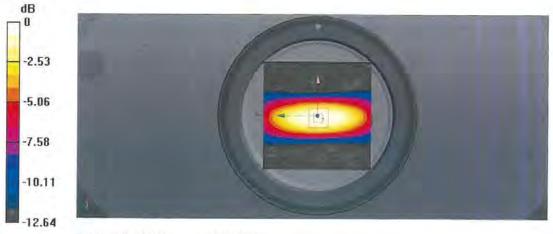
Communication System: UID 0 - CW; Frequency: 13 MHz Medium parameters used: f = 13 MHz; $\sigma = 0.71$ S/m; $\varepsilon_r = 53.4$; $\rho = 1000$ kg/m³ Phantom section: Flat Section Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2011)

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 = 29.70 V/m; Power Drift = 0.02 dB Peak SAR (extrapolated) = 1.01 W/kg SAR(1 g) = 0.497 W/kg; SAR(10 g) = 0.313 W/kg Smallest distance from peaks to all points 3 dB below: Larger than measurement grid (> 14 mm) Ratio of SAR at M2 to SAR at M1 = 78%

Maximum value of SAR (measured) = 0.729 W/kg

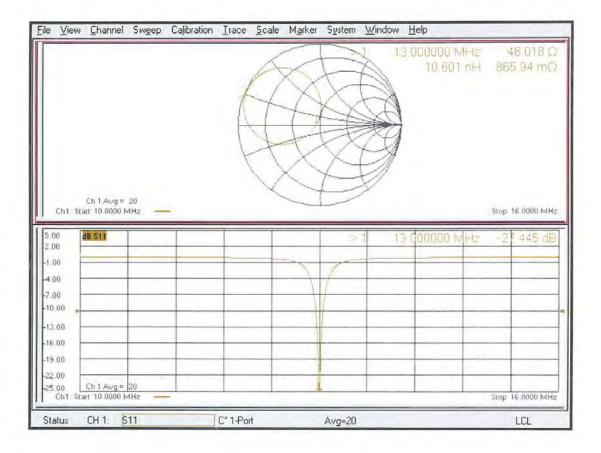


0 dB = 0.729 W/kg = -1.37 dBW/kg

Certificate No: CLA13-1030_Nov23

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Impedance Measurement Plot for Head TSL



Certificate No: CLA13-1030_Nov23

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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

Client Dt&C

Gyeonggi-do, Republic of Korea

Real Accession

Schweizerischer Kalibrierdienst Service suisse d'étalonnage Servizio svizzero di taratura

Swiss Calibration Service

Accreditation No.: SCS 0108

Certificate No. D600V3-1002_Aug23

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Object	D600V3 - SN: 1	002	
Calibration procedure(s)	QA CAL-15.v10 Calibration Proc	edure for SAR Validation Source	s below 700 MHz
Calibration date:	August 17, 2023		
and the bridge	ted in the closed laborato	ional standards, which realize the physical ur probability are given on the following pages are given contract temperature (22 ± 3)°	nd are part of the certificate.
Primary Standards	ID #	Cal Date (Certificate No.)	Scheduled Calibration
Power meter NRP2 Power sensor NRP-Z91 Power sensor NRP-Z91 Reference 20 dB Attenuator Type-N mismatch combination Reference Probe EX3DV4 DAE4	SN: 104778 SN: 103244 SN: 103245 SN: BH9394 (20k) SN: 310982 / 06327 SN: 3877 SN: 654	30-Mar-23 (No. 217-03804/03805) 30-Mar-23 (No. 217-03804) 30-Mar-23 (No. 217-03805) 30-Mar-23 (No. 217-03809) 30-Mar-23 (No. 217-03810) 06-Jan-23 (No. EX3-3877_Jan23) 27-Jan-23 (No. DAE4-654_Jan23)	Mar-24 Mar-24 Mar-24 Mar-24 Mar-24 Mar-24 Jan-24 Jan-24
econdary Standards	ID #	Check Date (in house)	and an and a set
ower meter NRP2 ower sensor NRP-Z91 ower sensor NRP-Z91 F generator HP 8648C etwork Analyzer Agilent E8358A	SN: 107193 SN: 100922 SN: 100418 SN: US3642U01700 SN: US41080477	08-Nov-21 (in house check Dec-22) 15-Dec-09 (in house check Dec-22) 01-Jan-04 (in house check Dec-22) 04-Aug-99 (in house check Jun-22) 31-Mar-14 (in house check Oct-22)	Scheduled Check In house check: Dec-24 In house check: Dec-24 In house check: Dec-24 In house check: Jun-24 In house check: Oct-24
alibrated by:	Name Michael Weber	Function Laboratory Technician	Signature
	Sven Kühn	Technical Manager	M.Meks-
oproved by:	SVOITALIIT)- / /-



Calibration Laboratory of Schmid & Partner Engineering AG

Zeughausstrasse 43, 8004 Zurich, Switzerland

Accredited by the Swiss Accreditation Service (SAS)



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

Accreditation No.: SCS 0108

Glossarv

Tot	
TSL	tissue simulating liquid
ConvF	
	sensitivity in TSL / NORM x,y,z
N/A	not applicable or not measured

The Swiss Accreditation Service is one of the signatories to the EA

Multilateral Agreement for the recognition of calibration certificates

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 dipole is mounted with the spacer to position its feed point exactly below the center marking of the flat phantom section, with the arms oriented
- Feed Point Impedance and Return Loss: These parameters are measured with the dipole positioned under the liquid filled phantom. The impedance stated is transformed from the measurement at the SMA connector to the feed point. The Return Loss ensures low reflected power. No uncertainty required.
- Electrical Delay: One-way delay between the SMA connector and the antenna feed point.
- 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
- SAR for nominal TSL parameters: The measured TSL parameters are used to calculate the

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

Certificate No: D600V3-1002_Aug23

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Measurement Conditions

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

DASY Version	DASY5	1
Extrapolation		V52.10.4
Phantom	Advanced Extrapolation	
0.22.000	ELI4 Flat Phantom	Shell thickness: 2 ± 0.2 mm
Distance Dipole Center - TSL	15 mm	
Zoom Scan Resolution	dx, dy, dz = 5 mm	with Spacer
Frequency	600 MHz ± 1 MHz	

Head TSL parameters The following parameters and calculations were applied.

Temperature	Permittivity	Conductivity
22.0 °C	42.7	0.88 mho/m
(22.0 ± 0.2) °C	436+6%	1
< 0.5 °C		0.92 mho/m ± 6 %
	22.0 °C	22.0 °C 42.7 (22.0 ± 0.2) °C 43.6 ± 6 %

SAR result with Head TSL

SAR averaged over 1 cm ³ (1 g) of Head TSL	Condition	
SAR measured	250 mW input power	
SAB for nominal Hood TSL	2.50 million input power	1.68 W/kg
SAR for nominal Head TSL parameters	normalized to 1W	6.52 W/kg ± 18.1 % (k=2)
SAR averaged over 10 cm ³ (10 g) of Head TSL	condition	
SAR measured		
SAR for nominal Head TSL parameters	250 mW input power	1.09 W/kg
	normalized to 1W	

Certificate No: D600V3-1002_Aug23

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Appendix (Additional assessments outside the scope of SCS 0108)

Antenna Parameters with Head TSL

Impedance, transformed to feed point	
Return Loss	59.0 Ω + 2.0 jΩ
	- 21.5 dB

General Antenna Parameters and Design

Electrical Delay (one direction)	
Liectrical Delay (one direction)	
	1.153 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 "Measurement Conditions" paragraph. The SAR data are not affected by this change. The overall dipole length is still No excessive fores much length.

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

Certificate No: D600V3-1002_Aug23

Page 4 of 6



DASY5 Validation Report for Head TSL

Date: 17.08.2023

Test Laboratory: SPEAG, Zurich, Switzerland

DUT: Dipole 600 MHz; Type: D600V3; Serial: D600V3 - SN: 1002

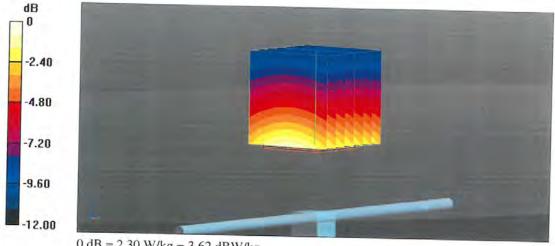
Communication System: UID 0 - CW; Frequency: 600 MHz Medium parameters used: f = 600 MHz; σ = 0.92 S/m; ϵ_r = 43.6; ρ = 1000 kg/m³ Phantom section: Flat Section Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2011)

DASY52 Configuration:

- Probe: EX3DV4 SN3877; ConvF(10.08, 10.08, 10.08) @ 600 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)

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 = 51.33 V/m; Power Drift = -0.00 dB Peak SAR (extrapolated) = 2.67 W/kg SAR(1 g) = 1.68 W/kg; SAR(10 g) = 1.09 W/kg Smallest distance from peaks to all points 3 dB below: Larger than measurement grid (> 15 mm) Ratio of SAR at M2 to SAR at M1 = 62.5% Maximum value of SAR (measured) = 2.30 W/kg



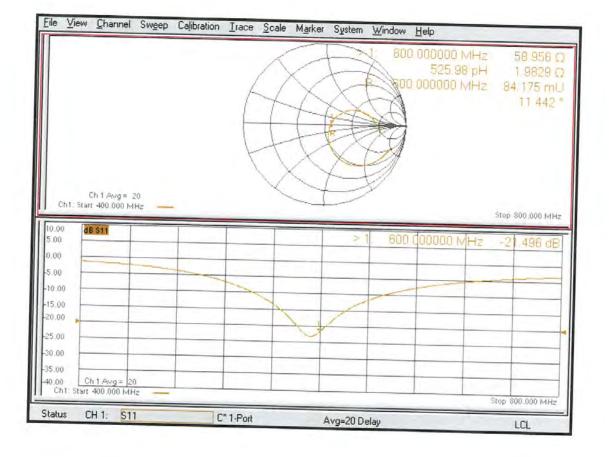
0 dB = 2.30 W/kg = 3.62 dBW/kg

Certificate No: D600V3-1002_Aug23

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Impedance Measurement Plot for Head TSL



Certificate No: D600V3-1002_Aug23

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Client Dt&C

Gyeonggi-do, Republic of Korea

Schweizerischer Kalibrierdienst Service suisse d'étalonnage

Servizio svizzero di taratura Swiss Calibration Service

Accreditation No.: SCS 0108

Certificate No. D750V3-1049_Mar24

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Object	D750V3 - SN:104	19	
Calibration procedure(s)	QA CAL-05.v12 Calibration Proce	dure for SAR Validation Sources	between 0.7-3 GHz
Calibration date:	March 20, 2024		
The measurements and the uncerta	ainties with confidence pr	conal standards, which realize the physical unit robability are given on the following pages and y facility: environment temperature $(22 \pm 3)^{\circ}C$	d are part of the certificate.
Calibration Equipment used (M&TE	E 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
Reference 20 dB Attenuator Type-N mismatch combination	SN: 310982 / 06327	30-Mar-23 (No. 217-03810)	Mar-24
Reference 20 dB Attenuator Type-N mismatch combination Reference Probe EX3DV4	SN: 310982 / 06327 SN: 7349	30-Mar-23 (No. 217-03810) 03-Nov-23 (No. EX3-7349_Nov23)	Mar-24 Nov-24
Reference 20 dB Attenuator Type-N mismatch combination Reference Probe EX3DV4	SN: 310982 / 06327	30-Mar-23 (No. 217-03810)	Mar-24
Reference 20 dB Attenualor Type-N mismatch combination Reference Probe EX3DV4 DAE4	SN: 310982 / 06327 SN: 7349	30-Mar-23 (No. 217-03810) 03-Nov-23 (No. EX3-7349_Nov23)	Mar-24 Nov-24
Reference 20 dB Attenuator Type-N mismatch combination Reference Probe EX3DV4 DAE4 Secondary Standards	SN: 310982 / 06327 SN: 7349 SN: 601	30-Mar-23 (No. 217-03810) 03-Nov-23 (No. EX3-7349_Nov23) 30-Jan-24 (No. DAE4-601_Jan24)	Mar-24 Nov-24 Jan-25
Reference 20 dB Attenualor Type-N mismatch combination Reference Probe EX3DV4 DAE4 Secondary Standards Power meter E4419B	SN: 310982 / 06327 SN: 7349 SN: 601 ID #	30-Mar-23 (No. 217-03810) 03-Nov-23 (No. EX3-7349_Nov23) 30-Jan-24 (No. DAE4-601_Jan24) Check Date (in house)	Mar-24 Nov-24 Jan-25 Scheduled Check
Reference 20 dB Attenuator Type-N mismatch combination Reference Probe EX3DV4 DAE4 Secondary Standards Power meter E4419B Power sensor HP 8481A	SN: 310982 / 06327 SN: 7349 SN: 601 ID # SN: GB39512475	30-Mar-23 (No. 217-03810) 03-Nov-23 (No. EX3-7349_Nov23) 30-Jan-24 (No. DAE4-601_Jan24) Check Date (in house) 30-Oct-14 (in house check Oct-22)	Mar-24 Nov-24 Jan-25 Scheduled Check In house check: Oct-24
Reference 20 dB Attenuator Type-N mismatch combination Reference Probe EX3DV4 DAE4 Secondary Standards Power meter E4419B Power sensor HP 8481A Power sensor HP 8481A	SN: 310982 / 06327 SN: 7349 SN: 601 ID # SN: GB39512475 SN: US37292763	30-Mar-23 (No. 217-03810) 03-Nov-23 (No. EX3-7349_Nov23) 30-Jan-24 (No. DAE4-601_Jan24) Check Date (in house) 30-Oct-14 (in house check Oct-22) 07-Oct-15 (in house check Oct-22)	Mar-24 Nov-24 Jan-25 Scheduled Check In house check: Oct-24 In house check: Oct-24
Reference 20 dB Attenuator Type-N mismatch combination Reference Probe EX3DV4 DAE4 Secondary Standards Power meter E4419B Power sensor HP 8481A Power sensor HP 8481A RF generator R&S SMT-06	SN: 310982 / 06327 SN: 7349 SN: 601 ID # SN: GB39512475 SN: US37292783 SN: MY41093315	30-Mar-23 (No. 217-03810) 03-Nov-23 (No. EX3-7349_Nov23) 30-Jan-24 (No. DAE4-601_Jan24) Check Date (in house) 30-Oct-14 (in house check Oct-22) 07-Oct-15 (in house check Oct-22) 07-Oct-15 (in house check Oct-22)	Mar-24 Nov-24 Jan-25 Scheduled Check In house check: Oct-24 In house check: Oct-24 In house check: Oct-24
Reference 20 dB Attenuator Type-N mismatch combination Reference Probe EX3DV4 DAE4 Secondary Standards Power meter E4419B Power sensor HP 8481A Power sensor HP 8481A RF generator R&S SMT-06 Network Analyzer Agilent E8358A	SN: 310982 / 06327 SN: 7349 SN: 601 ID # SN: GB39512475 SN: US37292783 SN: MY41093315 SN: 100972 SN: US41080477	30-Mar-23 (No. 217-03810) 03-Nov-23 (No. EX3-7349_Nov23) 30-Jan-24 (No. DAE4-601_Jan24) Check Date (in house) 30-Oct-14 (in house check Oct-22) 07-Oct-15 (in house check Oct-22) 07-Oct-15 (in house check Oct-22) 15-Jun-15 (in house check Oct-22) 31-Mar-14 (in house check Oct-22)	Mar-24 Nov-24 Jan-25 Scheduled Check In house check: Oct-24 In house check: Oct-24 In house check: Oct-24 In house check: Oct-24 In house check: Oct-24
Reference 20 dB Attenuator Type-N mismatch combination Reference Probe EX3DV4 DAE4 Secondary Standards Power meter E4419B Power sensor HP 8481A Power sensor HP 8481A RF generator R&S SMT-06	SN: 310982 / 06327 SN: 7349 SN: 601 ID # SN: GB39512475 SN: US37292783 SN: MY41093315 SN: 100972	30-Mar-23 (No. 217-03810) 03-Nov-23 (No. EX3-7349_Nov23) 30-Jan-24 (No. DAE4-601_Jan24) Check Date (in house) 30-Oct-14 (in house check Oct-22) 07-Oct-15 (in house check Oct-22) 07-Oct-15 (in house check Oct-22) 15-Jun-15 (in house check Oct-22)	Mar-24 Nov-24 Jan-25 Scheduled Check In house check: Oct-24 In house check: Oct-24 In house check: Oct-24 In house check: Oct-24 Signature
Reference 20 dB Attenuator Type-N mismatch combination Reference Probe EX3DV4 DAE4 Secondary Standards Power meter E4419B Power sensor HP 8481A Power sensor HP 8481A RF generator R&S SMT-06 Network Analyzer Agilent E8358A	SN: 310982 / 06327 SN: 7349 SN: 601 ID # SN: GB39512475 SN: US37292783 SN: MY41093315 SN: 100972 SN: US41080477 Name	30-Mar-23 (No. 217-03810) 03-Nov-23 (No. EX3-7349_Nov23) 30-Jan-24 (No. DAE4-601_Jan24) Check Date (in house) 30-Oct-14 (in house check Oct-22) 07-Oct-15 (in house check Oct-22) 07-Oct-15 (in house check Oct-22) 15-Jun-15 (in house check Oct-22) 31-Mar-14 (in house check Oct-22) Function	Mar-24 Nov-24 Jan-25 Scheduled Check In house check: Oct-24 In house check: Oct-24 In house check: Oct-24 In house check: Oct-24 In house check: Oct-24

TRF-RF-601(03)161101



Calibration Laboratory of Schmid & Partner

Engineering AG Zeughausstrasse 43, 8004 Zurich, Switzerland



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

Accreditation No.: SCS 0108

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

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%.

Certificate No: D750V3-1049_Mar24

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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	43.0 ± 6 %	0.90 mho/m ± 6 %
Head TSL temperature change during test	< 0.5 °C	ee	

SAR result with Head TSL

SAR averaged over 1 cm ³ (1 g) of Head TSL	Condition	
SAR measured	250 mW input power	2.13 W/kg
SAR for nominal Head TSL parameters	normalized to 1W	8.48 W/kg ± 17.0 % (k=2)
	1	the second s
SAR averaged over 10 cm ³ (10 g) of Head TSL	condition	
SAR averaged over 10 cm ³ (10 g) of Head TSL SAR measured	condition 250 mW input power	1.40 W/kg

Certificate No: D750V3-1049_Mar24

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Appendix (Additional assessments outside the scope of SCS 0108)

Antenna Parameters with Head TSL

54.2 Ω - 1.2 jΩ	
- 27.6 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
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Certificate No: D750V3-1049_Mar24

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DASY5 Validation Report for Head TSL

Date: 20.03.2024

Test Laboratory: SPEAG, Zurich, Switzerland

DUT: Dipole 750 MHz; Type: D750V3; Serial: D750V3 - SN:1049

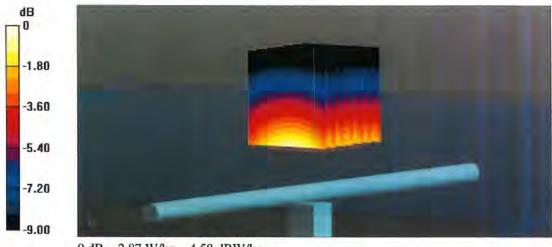
Communication System: UID 0 - CW; Frequency: 750 MHz Medium parameters used: f = 750 MHz; $\sigma = 0.9$ S/m; $\varepsilon_r = 43$; $\rho = 1000$ kg/m³ Phantom section: Flat Section Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2011)

DASY52 Configuration:

- Probe: EX3DV4 SN7349; ConvF(10.11, 10.11, 10.11) @ 750 MHz; Calibrated: 03.11.2023
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn601; Calibrated: 30.01.2024
- 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 = 60.32 V/m; Power Drift = -0.01 dB Peak SAR (extrapolated) = 3.25 W/kg **SAR(1 g) = 2.13 W/kg; SAR(10 g) = 1.40 W/kg** Smallest distance from peaks to all points 3 dB below = 16.8 mm Ratio of SAR at M2 to SAR at M1 = 65.5% Maximum value of SAR (measured) = 2.87 W/kg



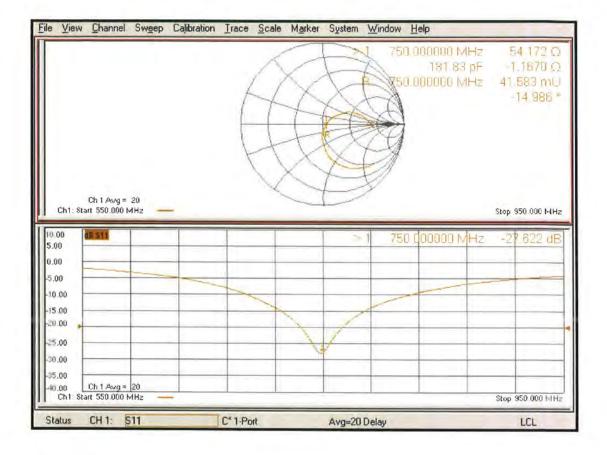
0 dB = 2.87 W/kg = 4.58 dBW/kg

Certificate No: D750V3-1049_Mar24

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Impedance Measurement Plot for Head TSL



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Multilateral Agreement for the recognition of calibration certificates

Client Dt&C

Gyeonggi-do, Republic of Korea

Schweizerischer Kalibrierdienst s Service suisse d'étalonnage С

Servizio svizzero di taratura S Swiss Calibration Service

Accreditation No.: SCS 0108

Certificate No. D835V2-4d159_Mar24

Object	D835V2 - SN:4d1	159	
Calibration procedure(s)	QA CAL-05.v12 Calibration Proce	dure for SAR Validation Sources	between 0.7-3 GHz
Calibration date:	March 20, 2024		
The measurements and the uncert	ainties with confidence pr ed in the closed laborator	onal standards, which realize the physical uni robability are given on the following pages an y facility: environment temperature (22 ± 3)°C	d are part of the certificate.
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
ower 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
	SN: US37292783	07-Oct-15 (in house check Oct-22)	In house check: Oct-24
Allow occurrent to terrared	SN: MY41093315	07-Oct-15 (in house check Oct-22)	In house check: Oct-24
Power sensor HP 8481A	SN: 100972	15-Jun-15 (in house check Oct-22)	In house check: Oct-24
Power sensor HP 8481A RF generator R&S SMT-06	SN: US41080477	31-Mar-14 (in house check Oct-22)	In house check: Oct-24
Power sensor HP 8481A RF generator R&S SMT-06			
Power sensor HP 8481A RF generator R&S SMT-06	Name	Function	Signature
Power sensor HP 8481A RF generator R&S SMT-06 Network Analyzer Agilent E8358A		Function Laboratory Technician	Signature
Power sensor HP 8481A Power sensor HP 8481A RF generator R&S SMT-06 Network Analyzer Agilent E8358A Calibrated by:	Name		Signature For Contraction Signature

Certificate No: D835V2-4d159_Mar24

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Accreditation No.: SCS 0108

Accredited by the Swiss Accreditation Service (SAS)

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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%.

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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	42.8 ± 6 %	0.92 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	2.49 W/kg
SAR for nominal Head TSL parameters	normalized to 1W	9.86 W/kg ± 17.0 % (k=2)
SAR averaged over 10 cm ³ (10 g) of Head TSL	condition	
SAR averaged over 10 cm ³ (10 g) of Head TSL SAR measured	condition 250 mW input power	1.62 W/kg

Certificate No: D835V2-4d159_Mar24

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Appendix (Additional assessments outside the scope of SCS 0108)

Antenna Parameters with Head TSL

Impedance, transformed to feed point	50.2 Ω - 5.1 JΩ
Return Loss	- 25.8 dB

General Antenna Parameters and Design

Electrical Delay (one direction)	1.437 ns
	1.407 113

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

PEAG
0

Certificate No: D835V2-4d159_Mar24

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DASY5 Validation Report for Head TSL

Date: 20.03.2024

Test Laboratory: SPEAG, Zurich, Switzerland

DUT: Dipole 835 MHz; Type: D835V2; Serial: D835V2 - SN:4d159

Communication System: UID 0 - CW; Frequency: 835 MHz Medium parameters used: f = 835 MHz; $\sigma = 0.92$ S/m; $\varepsilon_r = 42.8$; $\rho = 1000$ kg/m³ 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: 03.11.2023
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn601; Calibrated: 30.01.2024
- 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 = 64.81 V/m; Power Drift = 0.04 dB Peak SAR (extrapolated) = 3.72 W/kg SAR(1 g) = 2.49 W/kg; SAR(10 g) = 1.62 W/kg Smallest distance from peaks to all points 3 dB below = 19.8 mm

Ratio of SAR at M2 to SAR at M1 = 66.6%

Maximum value of SAR (measured) = 3.32 W/kg



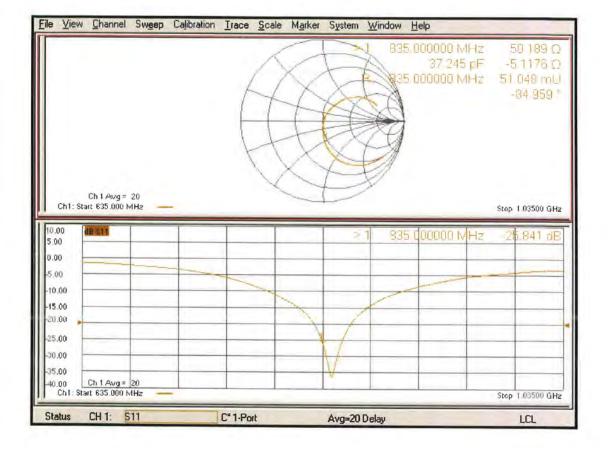
0 dB = 3.32 W/kg = 5.22 dBW/kg

Certificate No: D835V2-4d159_Mar24

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Impedance Measurement Plot for Head TSL



Certificate No: D835V2-4d159_Mar24

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

Accreditation No.: SCS 0108

Certificate No. D1800V2-2d202_Jan24

Object	D1800V2 - SN:20	d202	
Calibration procedure(s)	QA CAL-05.v12 Calibration Proce	edure for SAR Validation Sources	between 0.7-3 GHz
Calibration date:	January 25, 2024	4	
The measurements and the uncert	ainties with confidence p	onal standards, which realize the physical uni robability are given on the following pages an ry facility: environment temperature (22 ± 3)°C	d are part of the certificate.
Calibration Equipment used (M&TE		y nomy. or monitoric comportance (22 2 5) c	and numury - row.
Primary Standards	ID#	Cal Date (Certificate No.)	Scheduled Calibration
ower meter NRP2	SN: 104778	30-Mar-23 (No. 217-03804/03805)	Mar-24
ower sensor NRP-Z91	SN: 103244	30-Mar-23 (No. 217-03804)	Mar-24
		30-Mar-23 (No. 217-03805)	Mar-24
wer sensor NRP-Z91	SIN: 103245		
	SN: 103245 SN: BH9394 (20k)		
eference 20 dB Attenuator	SN: BH9394 (20k)	30-Mar-23 (No. 217-03809)	Mar-24
eference 20 dB Attenuator ype-N mismatch combination	SN: BH9394 (20k) SN: 310982 / 06327	30-Mar-23 (No. 217-03809) 30-Mar-23 (No. 217-03810)	Mar-24 Mar-24
Reference 20 dB Attenuator ype-N mismatch combination Reference Probe EX3DV4	SN: BH9394 (20k)	30-Mar-23 (No. 217-03809)	Mar-24
Reference 20 dB Attenuator ype-N mismatch combination Reference Probe EX3DV4 DAE4	SN: BH9394 (20k) SN: 310982 / 06327 SN: 7349	30-Mar-23 (No. 217-03809) 30-Mar-23 (No. 217-03810) 03-Nov-23 (No. EX3-7349_Nov23)	Mar-24 Mar-24 Nov-24
Reference 20 dB Attenuator ype-N mismatch combination teference Probe EX3DV4 MAE4 secondary Standards	SN: BH9394 (20k) SN: 310982 / 06327 SN: 7349 SN: 601	30-Mar-23 (No. 217-03809) 30-Mar-23 (No. 217-03810) 03-Nov-23 (No. EX3-7349_Nov23) 03-Oct-23 (No. DAE4-601_Oct23)	Mar-24 Mar-24 Nov-24 Oct-24
eference 20 dB Attenuator ype-N mismatch combination teference Probe EX3DV4 AE4 econdary Standards ower meter E4419B	SN: BH9394 (20k) SN: 310982 / 06327 SN: 7349 SN: 601	30-Mar-23 (No. 217-03809) 30-Mar-23 (No. 217-03810) 03-Nov-23 (No. EX3-7349_Nov23) 03-Oct-23 (No. DAE4-601_Oct23) Check Date (in house)	Mar-24 Mar-24 Nov-24 Oct-24 Scheduled Check
eference 20 dB Attenuator ype-N mismatch combination eference Probe EX3DV4 AE4 econdary Standards ower meter E4419B ower sensor HP 8481A	SN: BH9394 (20k) SN: 310982 / 06327 SN: 7349 SN: 601 ID # SN: GB39512475	30-Mar-23 (No. 217-03809) 30-Mar-23 (No. 217-03810) 03-Nov-23 (No. EX3-7349_Nov23) 03-Oct-23 (No. DAE4-601_Oct23) Check Date (in house) 30-Oct-14 (in house check Oct-22)	Mar-24 Mar-24 Nov-24 Oct-24 Scheduled Check In house check: Oct-24
Reference 20 dB Attenuator ype-N mismatch combination teference Probe EX3DV4 VAE4 Recondary Standards rower meter E4419B rower sensor HP 8481A rower sensor HP 8481A	SN: BH9394 (20k) SN: 310982 / 06327 SN: 7349 SN: 601 ID # SN: GB39512475 SN: US37292783	30-Mar-23 (No. 217-03809) 30-Mar-23 (No. 217-03810) 03-Nov-23 (No. EX3-7349_Nov23) 03-Oct-23 (No. DAE4-601_Oct23) Check Date (in house) 30-Oct-14 (in house check Oct-22) 07-Oct-15 (in house check Oct-22)	Mar-24 Mar-24 Nov-24 Oct-24 Scheduled Check In house check: Oct-24 In house check: Oct-24
eference 20 dB Attenuator ype-N mismatch combination teference Probe EX3DV4 (AE4 econdary Standards ower meter E4419B ower sensor HP 8481A ower sensor HP 8481A F generator R&S SMT-06	SN: BH9394 (20k) SN: 310982 / 06327 SN: 7349 SN: 601 ID # SN: GB39512475 SN: US37292783 SN: MY41093315	30-Mar-23 (No. 217-03809) 30-Mar-23 (No. 217-03810) 03-Nov-23 (No. EX3-7349_Nov23) 03-Oct-23 (No. DAE4-601_Oct23) Check Date (in house) 30-Oct-14 (in house check Oct-22) 07-Oct-15 (in house check Oct-22) 07-Oct-15 (in house check Oct-22)	Mar-24 Mar-24 Nov-24 Oct-24 Scheduled Check In house check: Oct-24 In house check: Oct-24 In house check: Oct-24 In house check: Oct-24
Reference 20 dB Attenuator ype-N mismatch combination teference Probe EX3DV4 VAE4 Recondary Standards rower meter E4419B rower sensor HP 8481A rower sensor HP 8481A rower sensor HP 8481A F generator R&S SMT-06	SN: BH9394 (20k) SN: 310982 / 06327 SN: 7349 SN: 601 ID # SN: GB39512475 SN: US37292783 SN: MY41093315 SN: 100972	30-Mar-23 (No. 217-03809) 30-Mar-23 (No. 217-03810) 03-Nov-23 (No. EX3-7349_Nov23) 03-Oct-23 (No. DAE4-601_Oct23) Check Date (in house) 30-Oct-14 (in house check Oct-22) 07-Oct-15 (in house check Oct-22) 07-Oct-15 (in house check Oct-22) 15-Jun-15 (in house check Oct-22)	Mar-24 Mar-24 Nov-24 Oct-24 Scheduled Check In house check: Oct-24 In house check: Oct-24 In house check: Oct-24
Reference 20 dB Attenuator Type-N mismatch combination Reference Probe EX3DV4 DAE4 Secondary Standards Power meter E4419B Power sensor HP 8481A Power sensor HP 8481A RF generator R&S SMT-06 Network Analyzer Agilent E8358A	SN: BH9394 (20k) SN: 310982 / 06327 SN: 7349 SN: 601 ID # SN: GB39512475 SN: US37292783 SN: MY41093315 SN: 100972 SN: US41080477	30-Mar-23 (No. 217-03809) 30-Mar-23 (No. 217-03810) 03-Nov-23 (No. EX3-7349_Nov23) 03-Oct-23 (No. DAE4-601_Oct23) Check Date (in house) 30-Oct-14 (in house check Oct-22) 07-Oct-15 (in house check Oct-22) 07-Oct-15 (in house check Oct-22) 15-Jun-15 (in house check Oct-22) 31-Mar-14 (in house check Oct-22)	Mar-24 Mar-24 Nov-24 Oct-24 Scheduled Check In house check: Oct-24 In house check: Oct-24 In house check: Oct-24 In house check: Oct-24
Power sensor NRP-Z91 Reference 20 dB Attenuator Type-N mismatch combination Reference Probe EX3DV4 DAE4 Secondary Standards Power meter E4419B Power sensor HP 8481A Power sensor HP 8481A RF generator R&S SMT-06 Network Analyzer Agilent E8358A Calibrated by:	SN: BH9394 (20k) SN: 310982 / 06327 SN: 7349 SN: 601 ID # SN: GB39512475 SN: US37292783 SN: MY41093315 SN: 100972 SN: US41080477 Name	30-Mar-23 (No. 217-03809) 30-Mar-23 (No. 217-03810) 03-Nov-23 (No. EX3-7349_Nov23) 03-Oct-23 (No. DAE4-601_Oct23) Check Date (in house) 30-Oct-14 (in house check Oct-22) 07-Oct-15 (in house check Oct-22) 07-Oct-15 (in house check Oct-22) 15-Jun-15 (in house check Oct-22) 31-Mar-14 (in house check Oct-22) Function	Mar-24 Mar-24 Nov-24 Oct-24 Scheduled Check In house check: Oct-24 In house check: Oct-24 In house check: Oct-24 In house check: Oct-24
Reference 20 dB Attenuator Type-N mismatch combination Reference Probe EX3DV4 DAE4 Secondary Standards Power meter E4419B Power sensor HP 8481A Power sensor HP 8481A RF generator R&S SMT-06 Network Analyzer Agilent E8358A Calibrated by:	SN: BH9394 (20k) SN: 310982 / 06327 SN: 7349 SN: 601 ID # SN: GB39512475 SN: US37292783 SN: MY41093315 SN: 100972 SN: US41080477 Name Krešimir Franjić	30-Mar-23 (No. 217-03809) 30-Mar-23 (No. 217-03810) 03-Nov-23 (No. EX3-7349_Nov23) 03-Oct-23 (No. DAE4-601_Oct23) Check Date (in house) 30-Oct-14 (in house check Oct-22) 07-Oct-15 (in house check Oct-22) 07-Oct-15 (in house check Oct-22) 15-Jun-15 (in house check Oct-22) 31-Mar-14 (in house check Oct-22) Function Laboratory Technician	Mar-24 Mar-24 Nov-24 Oct-24 Scheduled Check In house check: Oct-24 In house check: Oct-24 In house check: Oct-24 In house check: Oct-24

Certificate No: D1800V2-2d202_Jan24

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Accreditation No.: SCS 0108

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%.

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Measurement Conditions

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

DASY Version	DASY52	V52.10.4
Extrapolation	Advanced Extrapolation	1
Phantom	Modular Flat Phantom	
Distance Dipole Center - TSL	10 mm	with Spacer
Zoom Scan Resolution	dx, dy, dz = 5 mm	
Frequency	1800 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	40.7 ± 6 %	1.38 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	9.56 W/kg
SAR for nominal Head TSL parameters	normalized to 1W	38.7 W/kg ± 17.0 % (k=2)
SAR averaged over 10 cm ³ (10 g) of Head TSL	condition	
SAR averaged over 10 cm ³ (10 g) of Head TSL SAR measured	condition 250 mW input power	5.02 W/kg

Certificate No: D1800V2-2d202_Jan24

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Appendix (Additional assessments outside the scope of SCS 0108)

Antenna Parameters with Head TSL

Impedance, transformed to feed point	47.7 Ω - 3.4 jΩ	
Return Loss	- 27.5 dB	

General Antenna Parameters and Design

Electrical Delay (one direction)	1.211 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

SPEAG

Certificate No: D1800V2-2d202_Jan24

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DASY5 Validation Report for Head TSL

Date: 25.01.2024

Test Laboratory: SPEAG, Zurich, Switzerland

DUT: Dipole 1800 MHz; Type: D1800V2; Serial: D1800V2 - SN:2d202

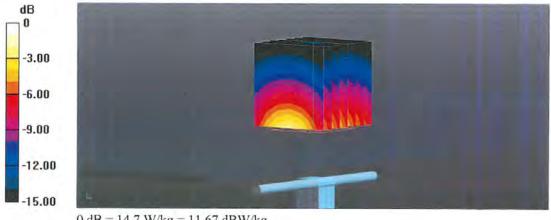
Communication System: UID 0 - CW; Frequency: 1800 MHz Medium parameters used: f = 1800 MHz; $\sigma = 1.38 \text{ S/m}$; $\varepsilon_r = 40.7$; $\rho = 1000 \text{ kg/m}^3$ Phantom section: Flat Section Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2011)

DASY52 Configuration:

- Probe: EX3DV4 SN7349; ConvF(8.63, 8.63, 8.63) @ 1800 MHz; Calibrated: 03.11.2023
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn601; Calibrated: 03.10.2023 •
- Phantom: Flat Phantom 5.0 (front); Type: QD 000 P50 AA; 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 = 108.2 V/m; Power Drift = 0.01 dB Peak SAR (extrapolated) = 17.3 W/kg SAR(1 g) = 9.56 W/kg; SAR(10 g) = 5.02 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) = 14.7 W/kg



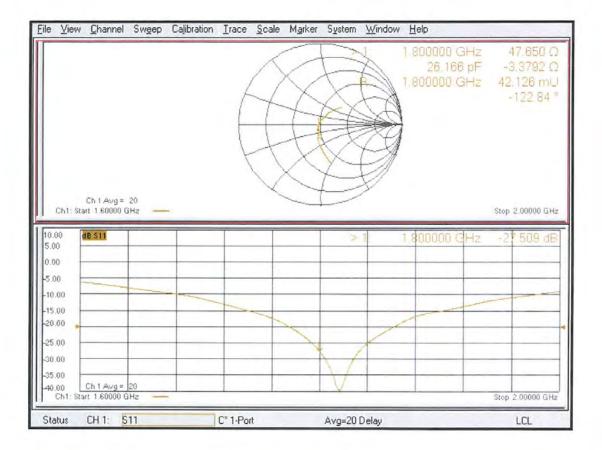
0 dB = 14.7 W/kg = 11.67 dBW/kg

Certificate No: D1800V2-2d202_Jan24

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Impedance Measurement Plot for Head TSL



Certificate No: D1800V2-2d202_Jan24

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Accreditation No.: SCS 0108

Certificate No. D1900V2-5d176_Mar24

Object	D1900V2 - SN:50	1176	
Calibration procedure(s)	QA CAL-05.v12 Calibration Proce	dure for SAR Validation Sources	between 0.7-3 GHz
Calibration date:	March 13, 2024		
The measurements and the uncerta	ainties with confidence pr	onal standards, which realize the physical unit obability are given on the following pages and y facility: environment temperature (22 ± 3) °C	d are part of the certificate.
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
Vereience 20 ub Altenualui	SN: 310982 / 06327	30-Mar-23 (No. 217-03810)	Mar-24
	SN: 310982706327		
Type-N mismatch combination	SN: 310982706327	03-Nov-23 (No. EX3-7349_Nov23)	Nov-24
Type-N mismatch combination Reference Probe EX3DV4		03-Nov-23 (No. EX3-7349_Nov23) 30-Jan-24 (No. DAE4-601_Jan24)	Nov-24 Jan-25
Type-N mismatch combination	SN: 7349		1121
Type-N mismatch combination Reference Probe EX3DV4 DAE4	SN: 7349 SN: 601	30-Jan-24 (No. DAE4-601_Jan24)	Jan-25
Type-N mismatch combination Reference Probe EX3DV4 DAE4 Secondary Standards	SN: 7349 SN: 601 ID#	30-Jan-24 (No. DAE4-601_Jan24) Check Date (in house)	Jan-25 Scheduled Check
Type-N mismatch combination Reference Probe EX3DV4 DAE4 Secondary Standards Power meter E4419B Power sensor HP 8481A	SN: 7349 SN: 601 ID # SN: GB39512475	30-Jan-24 (No. DAE4-601_Jan24) Check Date (in house) 30-Oct-14 (in house check Oct-22)	Jan-25 Scheduled Check In house check: Oct-24
Type-N mismatch combination Reference Probe EX3DV4 DAE4 Secondary Standards Power meter E4419B Power sensor HP 8481A Power sensor HP 8481A	SN: 7349 SN: 601 ID # SN: GB39512475 SN: US37292783	30-Jan-24 (No. DAE4-601_Jan24) Check Date (in house) 30-Oct-14 (in house check Oct-22) 07-Oct-15 (in house check Oct-22)	Jan-25 Scheduled Check In house check: Oct-24 In house check: Oct-24
Type-N mismatch combination Reference Probe EX3DV4 DAE4 Secondary Standards Power meter E4419B Power sensor HP 8481A Power sensor HP 8481A RF generator R&S SMT-06	SN: 7349 SN: 601 ID # SN: GB39512475 SN: US37292783 SN: MY41093315	30-Jan-24 (No. DAE4-601_Jan24) Check Date (in house) 30-Oct-14 (in house check Oct-22) 07-Oct-15 (in house check Oct-22) 07-Oct-15 (in house check Oct-22)	Jan-25 Scheduled Check In house check: Oct-24 In house check: Oct-24 In house check: Oct-24
Type-N mismatch combination Reference Probe EX3DV4 DAE4 Secondary Standards Power meter E4419B	SN: 7349 SN: 601 ID # SN: GB39512475 SN: US37292783 SN: MY41093315 SN: 100972	30-Jan-24 (No. DAE4-601_Jan24) Check Date (in house) 30-Oct-14 (in house check Oct-22) 07-Oct-15 (in house check Oct-22) 07-Oct-15 (in house check Oct-22) 15-Jun-15 (in house check Oct-22)	Jan-25 Scheduled Check In house check: Oct-24 In house check: Oct-24 In house check: Oct-24 In house check: Oct-24 In house check: Oct-24
Type-N mismatch combination Reference Probe EX3DV4 DAE4 Secondary Standards Power meter E4419B Power sensor HP 8481A Power sensor HP 8481A RF generator R&S SMT-06 Network Analyzer Agilent E8358A	SN: 7349 SN: 601 ID # SN: GB39512475 SN: US37292783 SN: MY41093315 SN: 100972 SN: US41080477	30-Jan-24 (No. DAE4-601_Jan24) Check Date (in house) 30-Oct-14 (in house check Oct-22) 07-Oct-15 (in house check Oct-22) 07-Oct-15 (in house check Oct-22) 15-Jun-15 (in house check Oct-22) 31-Mar-14 (in house check Oct-22) Function	Jan-25 Scheduled Check In house check: Oct-24 In house check: Oct-24 In house check: Oct-24 In house check: Oct-24
Type-N mismatch combination Reference Probe EX3DV4 DAE4 Secondary Standards Power meter E4419B Power sensor HP 8481A Power sensor HP 8481A RF generator R&S SMT-06	SN: 7349 SN: 601 ID # SN: GB39512475 SN: US37292783 SN: MY41093315 SN: 100972 SN: US41080477 Name	30-Jan-24 (No. DAE4-601_Jan24) Check Date (in house) 30-Oct-14 (in house check Oct-22) 07-Oct-15 (in house check Oct-22) 07-Oct-15 (in house check Oct-22) 15-Jun-15 (in house check Oct-22) 31-Mar-14 (in house check Oct-22)	Jan-25 Scheduled Check In house check: Oct-24 In house check: Oct-24 In house check: Oct-24 In house check: Oct-24 In house check: Oct-24
Type-N mismatch combination Reference Probe EX3DV4 DAE4 Secondary Standards Power meter E4419B Power sensor HP 8481A Power sensor HP 8481A RF generator R&S SMT-06 Network Analyzer Agilent E8358A	SN: 7349 SN: 601 ID # SN: GB39512475 SN: US37292783 SN: MY41093315 SN: 100972 SN: US41080477 Name	30-Jan-24 (No. DAE4-601_Jan24) Check Date (in house) 30-Oct-14 (in house check Oct-22) 07-Oct-15 (in house check Oct-22) 07-Oct-15 (in house check Oct-22) 15-Jun-15 (in house check Oct-22) 31-Mar-14 (in house check Oct-22) Function	Jan-25 Scheduled Check In house check: Oct-24 In house check: Oct-24 In house check: Oct-24 In house check: Oct-24 In house check: Oct-24

Certificate No: D1900V2-5d176_Mar24

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Accreditation No.: SCS 0108

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%.

Certificate No: D1900V2-5d176_Mar24

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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	41.5 ± 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	9.93 W/kg
SAR for nominal Head TSL parameters	normalized to 1W	40.0 W/kg ± 17.0 % (k=2)
SAP averaged ever 10 cm3 (10 c) of Head TSI	andition	
	condition	5.00 100
SAR averaged over 10 cm ³ (10 g) of Head TSL SAR measured	condition 250 mW input power	5,22 W/kg
		5.22 W/kg 21.0 W/kg ± 16.5 % (k=



Appendix (Additional assessments outside the scope of SCS 0108)

Antenna Parameters with Head TSL

Impedance, transformed to feed point	52.8 Ω + 4.9 jΩ
Return Loss	- 25.3 dB

General Antenna Parameters and Design

Electrical Delay (one direction)	1.200 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

Certificate No: D1900V2-5d176_Mar24

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DASY5 Validation Report for Head TSL

Date: 13.03.2024

Test Laboratory: SPEAG, Zurich, Switzerland

DUT: Dipole 1900 MHz; Type: D1900V2; Serial: D1900V2 - SN:5d176

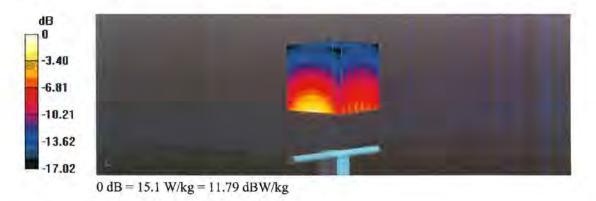
Communication System: UID 0 - CW; Frequency: 1900 MHz Medium parameters used: f = 1900 MHz; $\sigma = 1.4$ S/m; $\epsilon_r = 41.5$; $\rho = 1000$ kg/m³ Phantom section: Flat Section Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2011)

DASY52 Configuration:

- Probe: EX3DV4 SN7349; ConvF(8.43, 8.43, 8.43) @ 1900 MHz; Calibrated: 03.11.2023
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn601; Calibrated: 30.01.2024
- 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 = 108.9 V/m; Power Drift = 0.06 dB Peak SAR (extrapolated) = 18.2 W/kg **SAR(1 g) = 9.93 W/kg; SAR(10 g) = 5.22 W/kg** Smallest distance from peaks to all points 3 dB below = 10 mm Ratio of SAR at M2 to SAR at M1 = 55.5% Maximum value of SAR (measured) = 15.1 W/kg

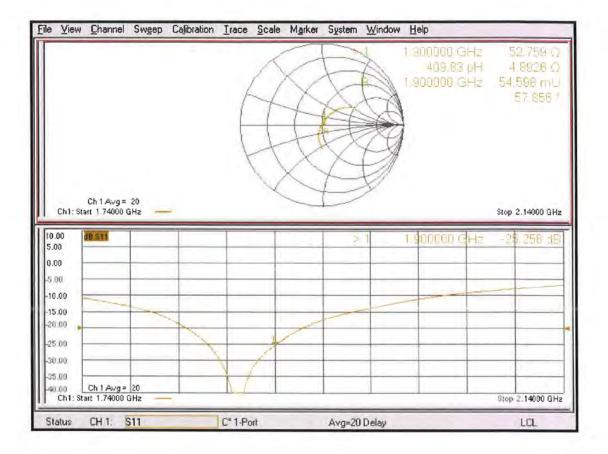


Certificate No: D1900V2-5d176 Mar24

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Impedance Measurement Plot for Head TSL



Certificate No: D1900V2-5d176_Mar24

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Accreditation No.: SCS 0108

Certificate No. D2450V2-726_Jul23

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CALIBRATION	EnnioAT		
Object	D2450V2 - SN:7	26	
Calibration procedure(s)	QA CAL-05.v12 Calibration Proc	edure for SAR Validation Source	s between 0.7-3 GHz
Calibration date:	July 19, 2023		
The measurements and the uncer	tainties with confidence p ed in the closed laborato	ional standards, which realize the physical ur probability are given on the following pages and ry facility: environment temperature $(22 \pm 3)^\circ$	nd are part of the certificate
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
ype-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
ower sensor HP 8481A	SN: US37292783	07-Oct-15 (in house check Oct-22)	In house check: Oct-24
ower 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
letwork Analyzer Agilent E8358A	SN: US41080477	31-Mar-14 (in house check Oct-22)	In house check: Oct-24
	Name	Function	Signature
alibrated by:	Paulo Pina	Laboratory Technician	Signatoro
			tarthe
pproved by:	Sven Kühn	Technical Manager	5.6

Certificate No: D2450V2-726_Jul23

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Accreditation No.: SCS 0108

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%.

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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	2450 MHz ± 1 MHz	

Head TSL parameters

The following parameters and calculations were applied.

	Temperature	Permittivity	Conductivity
Nominal Head TSL parameters	22.0 °C	39.2	1.80 mho/m
Measured Head TSL parameters	(22.0 ± 0.2) °C	37.8 ± 6 %	1.85 mho/m ± 6 %
Head TSL temperature change during test	< 0,5 °C	i dun	

SAR result with Head TSL

SAR averaged over 1 cm ³ (1 g) of Head TSL	Condition	
SAR measured	250 mW input power	13.5 W/kg
SAR for nominal Head TSL parameters	normalized to 1W	52.7 W/kg ± 17.0 % (k=2)

SAR averaged over 10 cm ³ (10 g) of Head TSL	condition	
SAR measured	250 mW input power	6.29 W/kg
SAR for nominal Head TSL parameters	normalized to 1W	24.8 W/kg ± 16.5 % (k=2)

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Appendix (Additional assessments outside the scope of SCS 0108)

Antenna Parameters with Head TSL

Impedance, transformed to feed point	54.4 Ω + 4.2 jΩ
Return Loss	- 24.7 dB

General Antenna Parameters and Design

Electrical Delay (one direction)	1.160 ns
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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

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DASY5 Validation Report for Head TSL

Date: 19.07.2023

Test Laboratory: SPEAG, Zurich, Switzerland

DUT: Dipole 2450 MHz; Type: D2450V2; Serial: D2450V2 - SN: 726

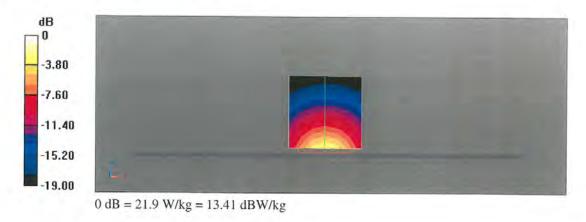
Communication System: UID 0 - CW; Frequency: 2450 MHz Medium parameters used: f = 2450 MHz; $\sigma = 1.85$ S/m; $\varepsilon_r = 37.8$; $\rho = 1000$ kg/m³ Phantom section: Flat Section Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2011)

DASY52 Configuration:

- Probe: EX3DV4 SN7349; ConvF(7.9, 7.9, 7.9) @ 2450 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: QD 000 P50 AA; 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 = 116.0 V/m; Power Drift = -0.08 dB Peak SAR (extrapolated) = 26.2 W/kg SAR(1 g) = 13.5 W/kg; SAR(10 g) = 6.29 W/kg Smallest distance from peaks to all points 3 dB below = 9 mm Ratio of SAR at M2 to SAR at M1 = 51.6% Maximum value of SAR (measured) = 21.9 W/kg

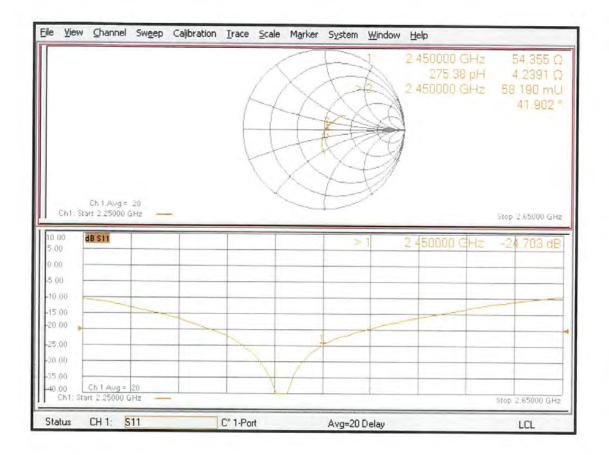


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Dt&C

Impedance Measurement Plot for Head TSL



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