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10491	AAE	LTE-TDD (SC-FDMA, 50% RB, 15 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	LTE-TDD	7.74	± 9.6 %
10492	AAE	LTE-TDD (SC-FDMA, 50% RB, 15 MHz, 16-QAM, UL Subframe=2.3.4.7.8.9)	LTE-TDD	8.41	±9.6 %
0493	AAE	LTE-TDD (SC-FDMA, 50% RB, 15 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.55	±9.6 %
0494	AAF	LTE-TDD (SC-FDMA, 50% RB, 20 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	LTE-TDD	7.74	±9.6 %
0495	AAF	LTE-TDD (SC-FDMA, 50% RB, 20 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.37	± 9.6 %
10496	AAF	LTE-TDD (SC-FDMA, 50% RB, 20 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.54	±9.6 %
10497	AAB	LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	LTE-TDD	7.67	± 9.6 %
10498	AAB	LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.40	± 9.6 %
10499	AAB	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 %
10500	AAC	LTE-TDD (SC-FDMA, 100% RB, 3 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	LTE-TDD	7.67	± 9.6 %
10501	AAC	LTE-TDD (SC-FDMA, 100% RB, 3 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.44	±9.6 %
10502	AAC	LTE-TDD (SC-FDMA, 100% RB, 3 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.52	±9.6 %
10503	AAF	LTE-TDD (SC-FDMA, 100% RB, 5 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	LTE-TDD	7.72	±9.6 %
10504	AAF	LTE-TDD (SC-FDMA, 100% RB, 5 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.31	± 9.6 %
10505	AAF	LTE-TDD (SC-FDMA, 100% RB, 5 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.54	± 9.6 %
10506	AAF	LTE-TDD (SC-FDMA, 100% RB, 10 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	LTE-TDD	7.74	± 9.6 %
10507	AAF	LTE-TDD (SC-FDMA, 100% RB, 10 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.36	± 9.6 %
10508	AAF	LTE-TDD (SC-FDMA, 100% RB, 10 MHz, 64-QAM, UL Subframe=2.3,4,7,8,9)	LTE-TDD	8.55	± 9.6 %
10509	AAE	LTE-TDD (SC-FDMA, 100% RB, 15 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	LTE-TDD	7.99	± 9.6 %
10510	AAE	LTE-TDD (SC-FDMA, 100% RB, 15 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.49	± 9.6 %
10511	AAE	LTE-TDD (SC-FDMA, 100% RB, 15 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.51	± 9.6 %
10512	AAF	LTE-TDD (SC-FDMA, 100% RB, 20 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	LTE-TDD	7.74	± 9.6 %
10513	AAF	LTE-TDD (SC-FDMA, 100% RB, 20 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.42	±9.6 %
10514	AAF	LTE-TDD (SC-FDMA, 100% RB, 20 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.45	± 9.6 %
10515	AAA	IEEE 802.11b WiFi 2.4 GHz (DSSS, 2 Mbps, 99pc duty cycle)	WLAN	1.58	± 9.6 %
10516	AAA	IEEE 802.11b WiFi 2.4 GHz (DSSS, 5.5 Mbps, 99pc duty cycle)	WLAN	1,57	± 9.6 %
10517	AAA	IEEE 802.11b WiFi 2.4 GHz (DSSS, 11 Mbps, 99pc duty cycle)	WLAN	1,58	± 9.6 %
10518	AAB	IEEE 802.11a/h WIFi 5 GHz (OFDM, 9 Mbps, 99pc duty cycle)	WLAN	8.23	± 9.6 %
10519	AAB	IEEE 802.11a/h WIFi 5 GHz (OFDM, 12 Mbps, 99pc duty cycle)	WLAN	8.39	±9.6 %
10520	AAB	IEEE 802.11a/h WIFI 5 GHz (OFDM, 18 Mbps, 99pc duty cycle)	WLAN	8.12	±9.6%
10521	AAB	IEEE 802.11a/h WiFi 5 GHz (OFDM, 24 Mbps, 99pc duty cycle)	WLAN	7.97	± 9.6 %
10522	AAB	IEEE 802.11a/h WiFi 5 GHz (OFDM, 36 Mbps, 99pc duty cycle)	WLAN	8,45	±9.6 %
10523	AAB	IEEE 802.11a/h WiFi 5 GHz (OFDM, 48 Mbps, 99pc duty cycle)	WLAN	8.08	± 9.6 %
10524	AAB	IEEE 802.11a/h WiFi 5 GHz (OFDM, 54 Mbps, 99pc duty cycle)	WLAN	8.27	±9.6 %
10525	AAB	IEEE 802.11ac WiFi (20MHz, MCS0, 99pc duty cycle)	WLAN	8.36	± 9.6 %
10526	AAB	IEEE 802.11ac WiFi (20MHz, MCS1, 99pc duty cycle)	WLAN	8.42	± 9.6 %
10527	AAB	IEEE 802.11ac WiFi (20MHz, MCS2, 99pc duty cycle)	WLAN	8.21	±9.6 %
10528	AAB	IEEE 802.11ac WiFi (20MHz, MCS2, Sopc duty cycle)	WLAN	8.36	± 9.6 %
10529	AAB	IEEE 802.11ac WFI (20MHz, MCS3, 99pc duty cycle)	WLAN	8.36	±9.6 %
10531	AAB	IEEE 802.11ac WiFi (20MHz, MCS4, 89pc duty cycle)	WLAN	and the second se	
10532	AAB	IEEE 802.11ac WiFI (20MHz, MCS6, 99pc duty cycle)	WLAN	8.43	±9.6%
10533	AAB	IEEE 802.11ac WiFI (20MHz, MCS7, 99pc duty cycle) IEEE 802.11ac WiFI (20MHz, MCS8, 99pc duty cycle)		8.29	±9.6 %
10033	L AAD	ICCC OVELLIBS WITH (ZOMITIZ, MICOS, Babe outy cycle)	WLAN	8.38	± 9.6 %

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10534	AAB	IEEE 802.11ac WiFi (40MHz, MCS0, 99pc duty cycle)	WLAN	8.45	±9.6 %
10535	AAB	IEEE 802.11ac WiFi (40MHz, MCS1, 99pc duty cycle)	WLAN	8.45	±9.6%
10536	AAB	IEEE 802.11ac WIFi (40MHz, MCS2, 99pc duty cycle)	WLAN	8.32	±9.6 %
10537	AAB	IEEE 802.11ac WiFi (40MHz, MCS3, 99pc duty cycle)	WLAN	8.44	± 9.6 %
10538	AAB	IEEE 802.11ac WiFi (40MHz, MCS4, 99pc duty cycle)	WLAN	8.54	±9.6 %
10540	AAB	IEEE 802.11ac WiFi (40MHz, MCS6, 99pc duty cycle)	WLAN	8.39	±9.6 %
10541	AAB	IEEE 802.11ac WiFi (40MHz, MCS7, 99pc duty cycle)	WLAN	8.46	± 9.6 %
10542	AAB	IEEE 802.11ac WIFi (40MHz, MCS8, 99pc duty cycle)	WLAN	8.65	±9.6 %
10543	AAB	IEEE 802.11ac WiFi (40MHz, MCS9, 99pc duty cycle)	WLAN	8.65	±9.6 %
10544	AAB	IEEE 802.11ac WiFi (80MHz, MCS0, 99pc duty cycle)	WLAN	8.47	± 9.6 %
10545	AAB	IEEE 802.11ac WIFi (80MHz, MCS1, 99pc duty cycle)	WLAN	8.55	± 9.6 %
10546	AAB	IEEE 802.11ac WiFi (80MHz, MCS2, 99pc duty cycle)	WLAN	8.35	± 9.6 %
10547	AAB	IEEE 802.11ac WiFi (80MHz, MCS3, 99pc duty cycle)	WLAN	8.49	± 9.6 %
10548	AAB	IEEE 802.11ac WIFi (80MHz, MCS4, 99pc duty cycle)	WLAN	8.37	± 9.6 %
10550	AAB	IEEE 802.11ac WiFi (80MHz, MCS6, 99pc duty cycle)	WLAN	8.38	± 9.6 %
10551	AAB	IEEE 802.11ac WiFi (80MHz, MCS7, 99pc duty cycle)	WLAN	8.50	± 9.6 %
10552	AAB	IEEE 802.11ac WiFi (80MHz, MCS8, 99pc duty cycle)	WLAN	8.42	±9.6 %
10553	AAB	IEEE 802.11ac WiFi (80MHz, MCS9, 99pc duty cycle)	WLAN	8.45	± 9.6 %
10554	AAC	IEEE 802.11ac WiFi (160MHz, MCS0, 99pc duty cycle)	WLAN	8.48	± 9.6 %
10555	AAC	IEEE 802.11ac WiFi (160MHz, MCS0, 99pc duty cycle)	WLAN	8.47	± 9.6 %
10556	AAC	IEEE 802.11ac WiFi (160MHz, MCS), itage duty cycle)	WLAN	8.50	±9.6 %
10557	AAC	IEEE 802.11ac WiFi (160MHz, MCS3, 99pc duty cycle)	WLAN	8.52	and the second se
10558	AAC	IEEE 802.11ac WiFI (160MHz, MCS3, stepc duty cycle)	WLAN		±9.6%
10560	AAC		WLAN	8.61	±9.6%
		IEEE 802.11ac WiFi (160MHz, MCS6, 99pc duty cycle)	the second se	8.73	±9.6%
10561	AAC	IEEE 802.11ac WiFi (160MHz, MCS7, 99pc duty cycle)	WLAN	8.56	± 9.6 %
10562	AAC	IEEE 802.11ac WiFi (160MHz, MCS8, 99pc duty cycle)	WLAN	8.69	±9.6%
10563	AAC	IEEE 802.11ac WIFI (160MHz, MCS9, 99pc duty cycle)	WLAN	8.77	± 9.6 %
10564	AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 9 Mbps, 99pc duty cycle)	WLAN	8.25	± 9.6 %
10565	AAA	IEEE 802.11g WIFI 2.4 GHz (DSSS-OFDM, 12 Mbps, 99pc duty cycle)	WLAN	8.45	± 9.6 %
10566	AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 18 Mbps, 99pc duty cycle)	WLAN	8.13	±9.6 %
10567	AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 24 Mbps, 99pc duty cvcle)	WLAN	8.00	±9.6 %
10568	AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 36 Mbps, 99pc duty cvcle)	WLAN	8.37	± 9.6 %
10569	AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 48 Mbps, 99pc duty	WLAN	8.10	± 9.6 %
10570	AAA	cycle) IEEE 802.11g WIFI 2.4 GHz (DSSS-OFDM, 54 Mbps, 99pc duty	WLAN	8.30	± 9.6 %
		cycle)	140 431	1.00	1 0 0 0
10571	AAA	IEEE 802.11b WiFi 2.4 GHz (DSSS, 1 Mbps, 90pc duty cycle)	WLAN	1.99	±9.6 %
10572	AAA	IEEE 802.11b WiFi 2.4 GHz (DSSS, 2 Mbps, 90pc duty cycle)	WLAN	1.99	± 9.6 %
10573	AAA	IEEE 802.11b WIFI 2.4 GHz (DSSS, 5.5 Mbps, 90pc duty cycle)	WLAN	1.98	± 9.6 %
10574	AAA	IEEE 802.11b WIFi 2.4 GHz (DSSS, 11 Mbps, 90pc duty cycle)	WLAN	1.98	±9.6 %
10575	AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 6 Mbps, 90pc duty cycle)	WLAN	8.59	± 9.6 %
10576	AAA	IEEE 802.11g WIFi 2.4 GHz (DSSS-OFDM, 9 Mbps, 90pc duty cycle)	WLAN	8.60	± 9.6 %
10577	AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 12 Mbps, 90pc duty cycle)	WLAN	8.70	± 9.6 %
10578	AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 18 Mbps, 90pc duty cycle)	WLAN	8.49	± 9.6 %
10579	AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 24 Mbps, 90pc duty cycle)	WLAN	8.36	± 9.6 %
10580	AAA	IEEE 802.11g WIFI 2.4 GHz (DSSS-OFDM, 36 Mbps, 90pc duty cvcle)	WLAN	8.76	± 9.6 %
10581	AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 48 Mbps, 90pc duty cycle)	WLAN	8.35	±9.6 %
10582	AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 54 Mbps, 90pc duty	WLAN	8.67	± 9.6 %
10583	AAB	cycle) IEEE 802.11a/h WiFi 5 GHz (OFDM, 6 Mbps, 90pc duty cycle)	WLAN	8.59	±9.6 %
	and the state of t			and the second se	±9.6%
					±9.6 %
					± 9.6 %
10584 10585 10586	AAB AAB AAB	IEEE 802.11a/h WiFi 5 GHz (OFDM, 9 Mbps, 90pc duty cycle) IEEE 802.11a/h WiFi 5 GHz (OFDM, 12 Mbps, 90pc duty cycle) IEEE 802.11a/h WiFi 5 GHz (OFDM, 18 Mbps, 90pc duty cycle)	WLAN WLAN WLAN	8	3.60 3.70 3.49

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10587	AAB	IEEE 802.11a/h WIFI 5 GHz (OFDM, 24 Mbps, 90pc duty cycle)	WLAN	8.36	± 9.6 %
0588	AAB	IEEE 802.11a/h WiFi 5 GHz (OFDM, 36 Mbps, 90pc duty cycle)	WLAN	8.76	±9.6 %
0589	AAB	IEEE 802.11a/h WiFi 5 GHz (OFDM, 48 Mbps, 90pc duty cycle)	WLAN	8,35	± 9.6 %
0590	AAB	IEEE 802.11a/h WIFi 5 GHz (OFDM, 54 Mbps, 90pc duty cycle)	WLAN	8.67	±9.6 %
0591	AAB	IEEE 802.11n (HT Mixed, 20MHz, MCS0, 90pc duty cycle)	WLAN	8.63	±9.6 %
0592	AAB	IEEE 802.11n (HT Mixed, 20MHz, MCS1, 90pc duty cycle)	WLAN	8.79	±9.6 %
0593	AAB	IEEE 802.11n (HT Mixed, 20MHz, MCS2, 90pc duty cycle)	WLAN	8.64	±9.6 %
0594	AAB	IEEE 802.11n (HT Mixed, 20MHz, MCS3, 90pc duty cycle)	WLAN	8,74	±9.6 %
0595	AAB	IEEE 802.11n (HT Mixed, 20MHz, MCS4, 90pc duty cycle)	WLAN	8.74	±9.6 %
0596	AAB	IEEE 802.11n (HT Mixed, 20MHz, MCS5, 90pc duty cycle)	WLAN	8.71	±9.6 %
0597	AAB	IEEE 802.11n (HT Mixed, 20MHz, MCS6, 90pc duty cycle)	WLAN	8.72	±9.6 %
0598	AAB	IEEE 802.11n (HT Mixed, 20MHz, MCS7, 90pc duty cycle)	WLAN	8.50	±9.6 %
0599	AAB	IEEE 802.11n (HT Mixed, 40MHz, MCS0, 90pc duty cycle)	WLAN	8.79	±9.6 %
0600	AAB	IEEE 802.11n (HT Mixed, 40MHz, MCS1, 90pc duty cycle)	WLAN	8.88	±9.6 %
0601	AAB	IEEE 802.11n (HT Mixed, 40MHz, MCS2, 90pc duty cycle)	WLAN	8.82	±9.6 %
0602	AAB	IEEE 802.11n (HT Mixed, 40MHz, MCS3, 90pc duty cycle)	WLAN	8.94	±9.6 %
0603	AAB	IEEE 802.11n (HT Mixed, 40MHz, MCS4, 90pc duty cycle)	WLAN	9.03	±9.6 9
0604	AAB	IEEE 802.11n (HT Mixed, 40MHz, MCS5, 90pc duty cycle)	WLAN	8.76	±9.69
0605	AAB	IEEE 802.11n (HT Mixed, 40MHz, MCS6, 90pc duty cycle)	WLAN	8.97	±9.69
0606	AAB	IEEE 802.11n (HT Mixed, 40MHz, MCS7, 90pc duty cycle)	WLAN	8.82	±9.6 %
0607	AAB	IEEE 802,11ac WiFi (20MHz, MCS0, 90pc duty cycle)	WLAN	8.64	±9.69
0608	AAB	IEEE 802.11ac WiFi (20MHz, MCS1, 90pc duty cycle)	WLAN .	8.77	±9.6 9
0609	AAB	IEEE 802.11ac WiFi (20MHz, MCS2, 90pc duty cycle)	WLAN WLAN	8.57	±9.6°
0610	AAB	IEEE 802.11ac WiFi (20MHz, MCS3, 90pc duty cycle) IEEE 802.11ac WiFi (20MHz, MCS4, 90pc duty cycle)		8.78	±9.6°
0611	AAB	IEEE 802.11ac WiFi (20MHz, MCS4, 90pc duty cycle) IEEE 802.11ac WiFi (20MHz, MCS5, 90pc duty cycle)	WLAN WLAN	8.70 8.77	± 9.6 *
0612	AAB	IEEE 802.11ac WiFi (20MHz, MCS5, 90pc duty cycle)	WLAN	8.94	19.6
0614	AAB	IEEE 802.11ac WiFI (20MHz, MCS6, 90pc duty cycle)	WLAN	8.59	19.6
0615	AAB	IEEE 802.11ac WiFi (20MHz, MCS7, 90pc duty cycle)	WLAN	8.82	±9.61
0616	AAB	IEEE 802.11ac WiFI (20MHz, MCS0, 90pc duty cycle)	WLAN	8.82	19.6
0617	AAB	IEEE 802.11ac WiFi (40MHz, MCSI), 90pc duty cycle)	WLAN	8.81	±9.6
0618	AAB	IEEE 802.11ac WiFi (40MHz, MCS2, 90pc duty cycle)	WLAN	8.58	± 9.6 1
0619	AAB	IEEE 802.11ac WIFI (40MHz, MCS3, 90pc duty cycle)	WLAN	8.86	±9.6 '
0620	AAB	IEEE 802.11ac WiFi (40MHz, MCS4, 90pc duty cycle)	WLAN	8.87	±9.6 %
0621	AAB	IEEE 802.11ac WiFi (40MHz, MCS5, 90pc duty cycle)	WLAN	8.77	± 9.6 %
0622	AAB	IEEE 802.11ac WiFi (40MHz, MCS6, 90pc duty cycle)	WLAN	8.68	± 9.6 °
0623	AAB	IEEE 802.11ac WiFi (40MHz, MCS7, 90pc duty cycle)	WLAN	8.82	±9.6 °
0624	AAB	IEEE 802.11ac WiFi (40MHz, MCS8, 90pc duty cycle)	WLAN	8.96	± 9.6 °
0625	AAB	IEEE 802.11ac WiFi (40MHz, MCS9, 90pc duty cycle)	WLAN	8.96	± 9.6 *
0626	AAB	IEEE 802.11ac WiFi (80MHz, MCS0, 90pc duty cycle)	WLAN	8.83	±9.6*
0627	AAB	IEEE 802.11ac WiFi (80MHz, MCS1, 90pc duty cycle)	WLAN	8.88	± 9.6 *
0628	AAB	IEEE 802.11ac WiFi (80MHz, MCS2, 90pc duty cycle)	WLAN	8.71	± 9.6
0629	AAB	IEEE 802.11ac WiFi (80MHz, MCS3, 90pc duty cycle)	WLAN	8.85	±9.61
0630	AAB	IEEE 802.11ac WiFi (80MHz, MCS4, 90pc duty cycle)	WLAN	8.72	±9.6
0631	AAB	IEEE 802.11ac WiFi (80MHz, MCS5, 90pc duty cycle)	WLAN	8.81	±9.6
0632	AAB	IEEE 802.11ac WiFi (80MHz, MCS6, 90pc duty cycle)	WLAN	8.74	±9.6
0633	AAB	IEEE 802.11ac WiFi (80MHz, MCS7, 90pc duty cycle)	WLAN	8.83	±9.6
0634	AAB	IEEE 802.11ac WiFi (80MHz, MCS8, 90pc duty cycle)	WLAN	8.80	±9.6
0635	AAB	IEEE 802.11ac WiFi (80MHz, MCS9, 90pc duty cycle)	WLAN	8.81	± 9.6
0636	AAC	IEEE 802.11ac WiFi (160MHz, MCS0, 90pc duty cycle)	WLAN	8.83	±9.6
0637	AAC	IEEE 802.11ac WiFi (160MHz, MCS1, 90pc duty cycle)	WLAN	8.79	±9.6
0638	AAC	IEEE 802.11ac WiFi (160MHz, MCS2, 90pc duty cycle)	WLAN	8.86	± 9.6
0639	AAC	IEEE 802.11ac WiFi (160MHz, MCS3, 90pc duty cycle)	WLAN	8.85	±9.6
0640	AAC	IEEE 802.11ac WiFi (160MHz, MCS4, 90pc duty cycle)	WLAN	8.98	±9.6
0641	AAC	IEEE 802.11ac WiFi (160MHz, MCS5, 90pc duty cycle)	WLAN	9.06	±9.6
0642	AAC	IEEE 802.11ac WiFi (160MHz, MCS6, 90pc duty cycle)	WLAN	9.06	±9.6
0643	AAC	IEEE 802.11ac WiFi (160MHz, MCS7, 90pc duty cycle)	WLAN	8.89	±9.6
0644	AAC	IEEE 802.11ac WiFi (160MHz, MCS8, 90pc duty cycle)	WLAN	9.05	± 9,6
0645	AAC	IEEE 802.11ac WiFi (160MHz, MCS9, 90pc duty cycle)	WLAN	9.11	±9.6
0646	AAG	LTE-TDD (SC-FDMA, 1 RB, 5 MHz, QPSK, UL Subframe=2,7)	LTE-TDD	11.96	±9.6
0647	AAF	LTE-TDD (SC-FDMA, 1 RB, 20 MHz, QPSK, UL Subframe=2,7)	LTE-TDD	11.96	±9.6
10648	AAA	CDMA2000 (1x Advanced)	CDMA2000	3.45	± 9.6
10652	AAE	LTE-TDD (OFDMA, 5 MHz, E-TM 3.1, Clipping 44%)	LTE-TDD	6.91	±9.6
10653	AAE	LTE-TDD (OFDMA, 10 MHz, E-TM 3.1, Clipping 44%)	LTE-TDD	7.42	± 9.6

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10654	AAD	LTE-TDD (OFDMA, 15 MHz, E-TM 3.1, Clipping 44%)	LTE-TDD	6.96	±9.6 %
0655	AAE	LTE-TDD (OFDMA, 20 MHz, E-TM 3.1, Clipping 44%)	LTE-TDD	7.21	± 9.6 %
0658	AAA	Pulse Waveform (200Hz, 10%)	Test	10.00	± 9.6 %
0659	AAA	Pulse Waveform (200Hz, 20%)	Test	6.99	± 9.6 %
0660	AAA	Pulse Waveform (200Hz, 40%)	Test	3.98	±9.6 %
0661	AAA	Pulse Waveform (200Hz, 60%)	Test	2.22	± 9.6 %
0662	AAA	Pulse Waveform (200Hz, 80%)	Test	0.97	± 9.6 %
0670	AAA	Bluetooth Low Energy	Bluetooth	2.19	± 9.6 %
0671	AAA	IEEE 802.11ax (20MHz, MCS0, 90pc duty cycle)	WLAN	9.09	± 9.6 %
0672	AAA	IEEE 802.11ax (20MHz, MCS1, 90pc duty cycle)	WLAN	8.57	± 9.6 %
0673	AAA	IEEE 802.11ax (20MHz, MCS2, 90pc duty cycle) IEEE 802.11ax (20MHz, MCS3, 90pc duty cycle)	WLAN	8.78	± 9.6 %
0675	AAA	IEEE 802.11ax (20MHz, MCS3, 90pc duty cycle)	WLAN MILAN	8.74	±9.6 %
0676	AAA	IEEE 802.11ax (20MHz, MCS5, 90pc duty cycle)	WLAN	8.90	± 9.6 % ± 9.6 %
0677	AAA	IEEE 802.11ax (20MHz, MCS5, 90pc duty cycle)	WLAN	8.73	±9.6 %
0678	AAA	IEEE 802.11ax (20MHz, MCS7, 90pc duty cycle)	WLAN	8.78	±9.6 %
0679	AAA	IEEE 802.11ax (20MHz, MCS8, 90pc duty cycle)	WLAN	8.89	± 9.6 %
0680	AAA	IEEE 802.11ax (20MHz, MCS9, 90pc duty cycle)	WLAN	8.80	±9.6 %
0681	AAA	IEEE 802.11ax (20MHz, MCS10, 90pc duty cycle)	WLAN	8.62	±9.6 %
0682	AAA	IEEE 802.11ax (20MHz, MCS11, 90pc duty cycle)	WLAN	8.83	±9.6 %
0683	AAA	IEEE 802.11ax (20MHz, MCS0, 99pc duty cycle)	WLAN	8.42	±9.6 9
0684	AAA	IEEE 802.11ax (20MHz, MCS1, 99pc duty cycle)	WLAN	8.26	±9.6 %
0685	AAA	IEEE 802.11ax (20MHz, MCS2, 99pc duty cycle)	WLAN	8.33	±9.6 9
0686	AAA	IEEE 802.11ax (20MHz, MCS3, 99pc duty cycle)	WLAN	8.28	±9.6 9
0687	AAA	IEEE 802.11ax (20MHz, MCS4, 99pc duty cycle)	WLAN	8.45	±9.6 %
88301	AAA	IEEE 802.11ax (20MHz, MCS5, 99pc duty cycle)	WLAN	8.29	±9.6 %
0689	AAA	IEEE 802.11ax (20MHz, MCS6, 99pc duty cycle)	WLAN.	8.55	± 9.6 9
0690	AAA	IEEE 802.11ax (20MHz, MCS7, 99pc duty cycle)	WLAN	8.29	± 9.6 %
0691	AAA	IEEE 802.11ax (20MHz, MCS8, 99pc duty cycle)	WLAN	8.25	± 9.6 9
0692	AAA	IEEE 802.11ax (20MHz, MCS9, 99pc duty cycle)	WLAN	8.29	± 9.6 %
0693	AAA	IEEE 802.11ax (20MHz, MCS10, 99pc duty cycle)	WLAN	8.25	± 9.6 9
0694	AAA	IEEE 802.11ax (20MHz, MCS11, 99pc duty cycle)	WLAN	8.57	±9.69
0695	AAA	IEEE 802.11ax (40MHz, MCS0, 90pc duty cycle)	WLAN	8.78	±9.69
10696	AAA	IEEE 802.11ax (40MHz, MCS1, 90pc duty cycle)	WLAN	8.91	± 9.6 %
0697	AAA	IEEE 802.11ax (40MHz, MCS2, 90pc duty cycle)	WLAN	8.61	±9.6 %
0698	AAA	IEEE 802.11ax (40MHz, MCS3, 90pc duty cycle)	WLAN	8.89	±9.6 %
0699	AAA	IEEE 802.11ax (40MHz, MCS4, 90pc duty cycle)	WLAN	8,82	±9.6 %
0700	AAA	IEEE 802.11ax (40MHz, MCS5, 90pc duty cycle)	WLAN	8.73	±9.6 °
10701	AAA	IEEE 802.11ax (40MHz, MCS6, 90pc duty cycle)	WLAN	8.86	±9.6 %
0702	AAA	IEEE 802.11ax (40MHz, MCS7, 90pc duty cycle)	WLAN	8.70	±9.6 %
10703	AAA	IEEE 802.11ax (40MHz, MCS8, 90pc duty cycle)	WLAN	8.82	±9.6 %
10704	AAA	IEEE 802.11ax (40MHz, MCS9, 90pc duty cycle)	WLAN	8.56	±9.6 °
0705	AAA	IEEE 802.11ax (40MHz, MCS10, 90pc duty cycle)	WLAN	8.69	±9.6*
10706	AAA	IEEE 802.11ax (40MHz, MCS11, 90pc duty cycle)	WLAN	8.66	±9,6 *
10707	AAA	IEEE 802.11ax (40MHz, MCS0, 99pc duty cycle)	WLAN	8.32	±9.61
0708	AAA	IEEE 802.11ax (40MHz, MCS1, 99pc duty cycle)	WLAN	8.55	±9.61
0709	AAA	IEEE 802.11ax (40MHz, MCS2, 99pc duty cycle)	WLAN	8.33	±9.6
0710	AAA	IEEE 802.11ax (40MHz, MCS3, 99pc duty cycle)	WLAN	8.29	±9.61
0711	AAA	IEEE 802.11ax (40MHz, MCS4, 99pc duty cycle)	WLAN	8.39	±9.6
0712	AAA	IEEE 802.11ax (40MHz, MCS5, 99pc duty cycle)	WLAN	8.67	±9.6
0713	AAA	IEEE 802.11ax (40MHz, MCS6, 99pc duty cycle)	WLAN	8.33	±9.6
0714	AAA	IEEE 802.11ax (40MHz, MCS7, 99pc duty cycle)	WLAN	8.26	±9.6
0716	AAA	IEEE 802.11ax (40MHz, MCS8, 99pc duty cycle)	WLAN	8.45	± 9.6
0716		IEEE 802.11ax (40MHz, MCS9, 99pc duty cycle)			±9.6
0718	AAA	IEEE 802.11ax (40MHz, MCS10, 99pc duty cycle) IEEE 802.11ax (40MHz, MCS11, 99pc duty cycle)	WLAN	8.48	±9.6 ±9.6
0719	AAA	IEEE 802.11ax (40MHz, MCS11, 99pc duty cycle)	WLAN	8.81	±9.6
0720	AAA	IEEE 802.11ax (80MHz, MCS0, sopc duty cycle)	WLAN	8.87	± 9.6
10721	AAA	IEEE 802.11ax (80MHz, MCS1, 90pc duty cycle)	WLAN	8.76	± 9.6
10722	AAA	IEEE 802.11ax (80MHz, MCS2, 50pc duty cycle)	WLAN	8.55	± 9.6
10723	AAA	IEEE 802.11ax (80MHz, MCS3, 90pc duty cycle)	WLAN	8.70	±9.6
10724	AAA	IEEE 802.11ax (80MHz, MCS5, 90pc duty cycle)	WLAN	8.90	± 9.6
10725	AAA	IEEE 802.11ax (80MHz, MCS6, 90pc duty cycle)	WLAN	8.74	± 9.6
10726	AAA	IEEE 802.11ax (80MHz, MCS7, 90pc duty cycle)	WLAN	8.72	± 9.6

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10727	AAA	IEEE 802.11ax (80MHz, MCS8, 90pc duty cycle)	WLAN	8.66	± 9.6 %
0728	AAA	IEEE 802.11ax (80MHz, MCS9, 90pc duty cycle)	WLAN	8.65	±9.6 %
0729	AAA	IEEE 802.11ax (80MHz, MCS10, 90pc duty cycle)	WLAN	8.64	±9.6 %
0730	AAA	IEEE 802.11ax (80MHz, MCS11, 90pc duty cycle)	WLAN	8.67	±9.6 %
0731	AAA	IEEE 802.11ax (80MHz, MCS0, 99pc duty cycle)	WLAN	8.42	±9.6 %
0732	AAA	IEEE 802.11ax (80MHz, MCS1, 99pc duty cycle)	WLAN	8.46	± 9.6 %
0733	AAA	IEEE 802.11ax (80MHz, MCS2, 99pc duty cycle)	WLAN	8.40	± 9.6 %
0734	AAA	IEEE 802.11ax (80MHz, MCS3, 99pc duty cycle)	WLAN	8.25	±9.6 %
0735	AAA	IEEE 802.11ax (80MHz, MCS4, 99pc duty cycle)	WLAN	8.33	±9.6 %
0736	AAA	IEEE 802.11ax (80MHz, MCS5, 99pc duty cycle)	WLAN	8.27	± 9.6 %
0737	AAA	IEEE 802.11ax (80MHz, MCS6, 99pc duty cycle)	WLAN	8.36	± 9.6 %
0738	AAA	IEEE 802.11ax (80MHz, MCS7, 99pc duty cycle)	WLAN	8,42	± 9.6 %
0739	AAA	IEEE 802.11ax (80MHz, MCS8, 99pc duty cycle)	WLAN	8.29	± 9.6 %
0740	AAA	IEEE 802.11ax (80MHz, MCS9, 99pc duty cycle)	WLAN	8.48	±9.6 %
0741	AAA	IEEE 802.11ax (80MHz, MCS10, 99pc duty cycle)	WLAN	8,40	±9.6%
0742	AAA	IEEE 802.11ax (80MHz, MCS10, 99pc duty cycle)	WLAN	8.43	± 9.6 %
	AAA	IEEE 802.11ax (60MHz, MCS11, 56pc duty cycle)	WLAN	8.94	
0743	and the state of the second second second	IEEE 802.118X (100MPI2, MCS0, 90pc duty cycle)			±9.6 %
0744	AAA	IEEE 802.11ax (160MHz, MCS1, 90pc duty cycle)	WLAN	9.16	± 9.6 %
0745	AAA	IEEE 802.11ax (160MHz, MCS2, 90pc duty cycle)	WLAN	8.93	±9.6 %
0746	AAA	IEEE 802.11ax (160MHz, MCS3, 90pc duty cycle)	WLAN	9.11	±9.6 %
0747	AAA	IEEE 802.11ax (160MHz, MCS4, 90pc duty cycle)	WLAN	9.04	± 9.6 %
0748	AAA	IEEE 802.11ax (160MHz, MCS5, 90pc duty cycle)	WLAN	8.93	± 9.6 %
10749	AAA	IEEE 802.11ax (160MHz, MCS6, 90pc duty cycle)	WLAN	8.90	± 9.6 %
10750	AAA	IEEE 802.11ax (160MHz, MCS7, 90pc duty cycle)	WLAN	8.79	±9.6 %
0751	AAA	IEEE 802.11ax (160MHz, MCS8, 90pc duty cycle)	WLAN	8.82	±9.6 %
10752	AAA	IEEE 802.11ax (160MHz, MCS9, 90pc duty cycle)	WLAN	8.81	± 9.6 %
0753	AAA	IEEE 802.11ax (160MHz, MCS10, 90pc duty cycle)	WLAN	9.00	±9.6 %
0754	AAA	IEEE 802.11ax (160MHz, MCS11, 90pc duty cycle)	WLAN	8.94	±9.6 %
0755	AAA	IEEE 802.11ax (160MHz, MCS0, 99pc duty cycle)	WLAN	8.64	±9.6 %
0756	AAA	IEEE 802.11ax (160MHz, MCS1, 99pc duty cycle)	WLAN	B.77	± 9.6 %
10757	AAA	IEEE 802.11ax (160MHz, MCS2, 99pc duty cycle)	WLAN	8.77	± 9.6 %
10758	AAA	IEEE 802.11ax (160MHz, MCS3, 99pc duty cycle)	WLAN	8.69	±9.6 %
10759	AAA	IEEE 802.11ax (160MHz, MCS3, 99pc duty cycle)	WLAN	8.58	
					± 9.6 %
10760	AAA	IEEE 802.11ax (160MHz, MCS5, 99pc duty cycle)	WLAN	8.49	± 9.6 %
10761	AAA	IEEE 802.11ax (160MHz, MCS6, 99pc duty cycle)	WLAN	8.58	± 9.6 %
10762	AAA	IEEE 802.11ax (160MHz, MCS7, 99pc duty cycle)	WLAN	8,49	± 9.6 %
10763	AAA	IEEE 802.11ax (160MHz, MCS8, 99pc duty cycle)	WLAN	8.53	± 9.6 %
10764	AAA	IEEE 802.11ax (160MHz, MCS9, 99pc duty cycle)	WLAN	8.54	± 9.6 %
10765	AAA	IEEE 802.11ax (160MHz, MCS10, 99pc duty cycle)	WLAN	8.54	± 9.6 %
10766	AAA	IEEE 802.11ax (160MHz, MCS11, 99pc duty cycle)	WLAN	8.51	± 9.6 %
10767	AAB	5G NR (CP-OFDM, 1 RB, 5 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	7.99	± 9.6 %
10768	AAB	5G NR (CP-OFDM, 1 RB, 10 MHz, QPSK, 15 kHz)	5G NR FR1	8.01	±9.6 %
			TDD		
10769	AAB	5G NR (CP-OFDM, 1 RB, 15 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.01	±9.6 %
10770	AAB	5G NR (CP-OFDM, 1 RB, 20 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.02	±9.6 %
10771	AAB	5G NR (CP-OFDM, 1 RB, 25 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.02	±9.6 %
10772	AAB	5G NR (CP-OFDM, 1 RB, 30 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.23	±9.6 %
10773	AAB	5G NR (CP-OFDM, 1 RB, 40 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.03	± 9.6 %
10774	AAB	5G NR (CP-OFDM, 1 RB, 50 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.02	±9.6 %
10776	AAB	5G NR (CP-OFDM, 50% RB, 10 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.30	± 9.6 %
10778	AAB	5G NR (CP-OFDM, 50% RB, 20 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.34	± 9.6 %
10780	AAB	5G NR (CP-OFDM, 50% RB, 30 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.38	± 9.6 %
10781	AAB	5G NR (CP-OFDM, 50% RB, 40 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.38	± 9.6 %

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10782	AAB	5G NR (CP-OFDM, 50% RB, 50 MHz, QPSK, 15 kHz)	5G NR FR1	8.43	±9.6 %
10783	AAB	5G NR (CP-OFDM, 100% RB, 5 MHz, QPSK, 15 kHz)	5G NR FR1	8.31	± 9.6 %
10784	AAB	5G NR (CP-OFDM, 100% RB, 10 MHz, QPSK, 15 kHz)	5G NR FR1	8.29	±9.6 %
10785	AAB	5G NR (CP-OFDM, 100% RB, 15 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.40	±9.6 %
10786	AAB	5G NR (CP-OFDM, 100% RB, 20 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.35	±9.6 %
10787	AAB	5G NR (CP-OFDM, 100% RB, 25 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.44	±9.6 %
10788	AAB	5G NR (CP-OFDM, 100% RB, 30 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.39	± 9.6 %
10789	AAB	5G NR (CP-OFDM, 100% RB, 40 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.37	±9.6 %
10790	AAB	5G NR (CP-OFDM, 100% RB, 50 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.39	±9.6 %
10791	AAB	5G NR (CP-OFDM, 1 RB, 5 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	7.83	± 9.6 %
10792	AAB	5G NR (CP-OFDM, 1 RB, 10 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	7,92	± 9.6 %
10793	AAB	5G NR (CP-OFDM, 1 RB, 15 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	7.95	± 9.6 %
10794	AAB	5G NR (CP-OFDM, 1 RB, 20 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	7.82	± 9.6 %
10795	AAB	5G NR (CP-OFDM, 1 RB, 25 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	7.84	± 9.6 %
10796	AAB	5G NR (CP-OFDM, 1 RB, 30 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	7.82	± 9.6 %
10797	AAB	5G NR (CP-OFDM, 1 RB, 40 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	8.01	± 9.6 %
10798	AAB	5G NR (CP-OFDM, 1 RB, 50 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	7.89	± 9.6 %
10799	AAB	5G NR (CP-OFDM, 1 RB, 60 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	7.93	± 9.6 %
10801	AAB	5G NR (CP-OFDM, 1 RB, 80 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	7.89	± 9.6 %
10802	AAB	5G NR (CP-OFDM, 1 RB, 90 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	7.87	± 9.6 %
10803	AAB	5G NR (CP-OFDM, 1 RB, 100 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	7.93	±9.6 %
10805	AAB	5G NR (CP-OFDM, 50% RB, 10 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	8.34	±9.6 %
10806	AAB	5G NR (CP-OFDM, 50% RB, 15 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	8.37	±9.6 %
10809	AAB	5G NR (CP-OFDM, 50% RB, 30 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	8.34	± 9.6 %
10810	AAB	5G NR (CP-OFDM, 50% RB, 40 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	8.34	± 9.6 %
10812	AAB	5G NR (CP-OFDM, 50% RB, 60 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	8.35	± 9.6 %
10817	AAB	5G NR (CP-OFDM, 100% RB, 5 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	8.35	± 9.6 %
10818	AAB	5G NR (CP-OFDM, 100% RB, 10 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	8.34	±9.6 %
10819	AAB	5G NR (CP-OFDM, 100% RB, 15 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	8.33	± 9.6 %
10820	AAB	5G NR (CP-OFDM, 100% RB, 20 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	8.30	±9.6 %
10821	AAB	5G NR (CP-OFDM, 100% RB, 25 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	8,41	± 9,6 %
10822	AAB	5G NR (CP-OFDM, 100% RB, 30 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	8.41	± 9.6 %
10823	AAB	5G NR (CP-OFDM, 100% RB, 40 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	8.36	±9.6 %

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10824	AAB	5G NR (CP-OFDM, 100% RB, 50 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	8,39	± 9.6 %
10825	AAB	5G NR (CP-OFDM, 100% RB, 60 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	8.41	±9.6 %
10827	AAB	5G NR (CP-OFDM, 100% RB, 80 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	8.42	±9.6 %
10828	AAB	5G NR (CP-OFDM, 100% RB, 90 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	8.43	± 9.6 %
10829	AAB	5G NR (CP-OFDM, 100% RB, 100 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	8.40	±9.6 %
10830	AAB	5G NR (CP-OFDM, 1 RB, 10 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	7.63	±9.6 %
10831	AAB	5G NR (CP-OFDM, 1 RB, 15 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	7.73	± 9.6 %
10832	BAA	5G NR (CP-OFDM, 1 RB, 20 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	7.74	± 9.6 %
10833	BAA	5G NR (CP-OFDM, 1 RB, 25 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	7.70	± 9.6 %
10834	AAB	5G NR (CP-OFDM, 1 RB, 30 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	7.75	±9.6 %
10835	AAB	5G NR (CP-OFDM, 1 RB, 40 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	7.70	± 9.6 %
10836	AAB	5G NR (CP-OFDM, 1 RB, 50 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	7.66	± 9.6 %
10837	AAB	5G NR (CP-OFDM, 1 RB, 60 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	7.68	± 9.6 %
10839	AAB	5G NR (CP-OFDM, 1 RB, 80 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	7.70	± 9.6 %
10840	AAB	5G NR (CP-OFDM, 1 RB, 90 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	7.67	± 9.6 %
10841	AAB	5G NR (CP-OFDM, 1 RB, 100 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	7.71	± 9.6 %
10843	AAB	5G NR (CP-OFDM, 50% RB, 15 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	8.49	± 9.6 %
10844	AAB	5G NR (CP-OFDM, 50% RB, 20 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	8.34	± 9.6 %
10846	AAB	5G NR (CP-OFDM, 50% RB, 30 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	8.41	± 9.6 %
10854	AAB	5G NR (CP-OFDM, 100% RB, 10 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	8.34	± 9.6 %
10855	AAB	5G NR (CP-OFDM, 100% RB, 15 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	8.36	± 9.6 %
10856	AAB	5G NR (CP-OFDM, 100% RB, 20 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	8.37	±9.6 %
10857	AAB	5G NR (CP-OFDM, 100% RB, 25 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	8.35	± 9,6 %
10858	AAB	5G NR (CP-OFDM, 100% RB, 30 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	8.36	± 9.6 %
10859	AAB	5G NR (CP-OFDM, 100% RB, 40 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	8.34	± 9.6 %
10860	AAB	5G NR (CP-OFDM, 100% RB, 50 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	8.41	± 9.6 %
10861	AAB	5G NR (CP-OFDM, 100% RB, 60 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	8.40	± 9.6 %
10863	AAB	5G NR (CP-OFDM, 100% RB, 80 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	8.41	± 9.6 %
10864	AAB	5G NR (CP-OFDM, 100% RB, 90 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	8.37	±9.6 %
10865	AAB	5G NR (CP-OFDM, 100% RB, 100 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	8.41	± 9.6 %
10866	AAB	5G NR (DFT-s-OFDM, 1 RB, 100 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.68	± 9.6 %
10868	AAB	5G NR (DFT-s-OFDM, 100% RB, 100 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.89	± 9.6 %
10869	AAC	5G NR (DFT-s-OFDM, 1 RB, 100 MHz, QPSK, 120 kHz)	5G NR FR2 TDD	5.75	± 9.6 %

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10870	AAC	5G NR (DFT-s-OFDM, 100% RB, 100 MHz, QPSK, 120 kHz)	5G NR FR2	5.86	± 9.6 %
10871	AAC	5G NR (DFT-s-OFDM, 1 RB, 100 MHz, 16QAM, 120 kHz)	5G NR FR2 TDD	5.75	± 9.6 %
10872	AAC	5G NR (DFT-s-OFDM, 100% RB, 100 MHz, 16QAM, 120 kHz)	5G NR FR2 TDD	6.52	±9.6 %
10873	AAC	5G NR (DFT-s-OFDM, 1 RB, 100 MHz, 64QAM, 120 kHz)	5G NR FR2 TDD	6.61	±9.6 %
10874	AAC	5G NR (DFT-s-OFDM, 100% RB, 100 MHz, 64QAM, 120 kHz)	5G NR FR2 TDD	6.65	±9.6 %
10875	AAC	5G NR (CP-OFDM, 1 RB, 100 MHz, QPSK, 120 kHz)	5G NR FR2 TDD	7.78	± 9.6 %
10876	AAC	5G NR (CP-OFDM, 100% RB, 100 MHz, QPSK, 120 kHz)	5G NR FR2 TDD	8,39	±9.6 %
10877	AAC	5G NR (CP-OFDM, 1 RB, 100 MHz, 16QAM, 120 kHz)	5G NR FR2 TDD	7,95	± 9.6 %
10878	AAC	5G NR (CP-OFDM, 100% RB, 100 MHz, 16QAM, 120 kHz)	5G NR FR2 TDD	8.41	± 9.6 %
10879	AAC	5G NR (CP-OFDM, 1 RB, 100 MHz, 64QAM, 120 kHz)	5G NR FR2 TDD	8.12	± 9.6 %
10880	AAC	5G NR (CP-OFDM, 100% RB, 100 MHz, 64QAM, 120 kHz)	5G NR FR2 TDD	8.38	± 9.6 %
10881	AAC	5G NR (DFT-s-OFDM, 1 RB, 50 MHz, QPSK, 120 kHz)	5G NR FR2 TDD	5.75	± 9.6 %
10882	AAC	5G NR (DFT-s-OFDM, 100% RB, 50 MHz, QPSK, 120 kHz)	5G NR FR2 TDD	5.96	±9.6 %
10883	AAC	5G NR (DFT-s-OFDM, 1 RB, 50 MHz, 16QAM, 120 kHz)	5G NR FR2 TDD	6.57	± 9.6 %
10884	AAC	5G NR (DFT-s-OFDM, 100% RB, 50 MHz, 16QAM, 120 kHz)	5G NR FR2 TDD	6.53	±9.6 %
10885	AAC	5G NR (DFT-s-OFDM, 1 RB, 50 MHz, 64QAM, 120 kHz)	5G NR FR2 TDD	6.61	± 9.6 %
10886	AAC	5G NR (DFT-s-OFDM, 100% RB, 50 MHz, 64QAM, 120 kHz)	5G NR FR2 TDD	6.65	± 9.6 %
10887	AAC	5G NR (CP-OFDM, 1 RB, 50 MHz, QPSK, 120 kHz)	5G NR FR2 TDD	7.78	± 9.6 %
10888	AAC	5G NR (CP-OFDM, 100% RB, 50 MHz, QPSK, 120 kHz)	5G NR FR2 TDD	8.35	±9.6 %
10889	AAC	5G NR (CP-OFDM, 1 RB, 50 MHz, 16QAM, 120 kHz)	5G NR FR2 TDD	8.02	± 9.6 %
10890	AAC	5G NR (CP-OFDM, 100% RB, 50 MHz, 16QAM, 120 kHz)	5G NR FR2 TDD	8,40	± 9.6 %
10891	AAC	5G NR (CP-OFDM, 1 R8, 50 MHz, 64QAM, 120 kHz)	5G NR FR2 TDD	8.13	± 9.6 %
	AAC		5G NR FR2	8.41	±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: EX3-3617_Jan20/2

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ANNEX H Dipole Calibration Certificate

2450 MHz Dipole Calibration Certificate

		Deag ATION LABORATORY	中国认可国际互认
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Client AUD			19-60451
CALIBRATION C	EDTICICA		
CALIBRATION C	ERTIFICA		
Object	D2450	V2 - SN: 735	
Calibration Procedure(s)		1-003-01 ation Procedures for dipole validation kits	
Calibration date:	Decem	nber 17, 2019	
pages and are part of the ce	ertificate.	the uncertainties with confidence probability the closed laboratory facility: environmen	
		or calibration)	
Primary Standarda	ID #		
Primary Standards Power Meter NRP2	ID #	Cal Date(Calibrated by, Certificate No.)	Scheduled Calibration
Power Meter NRP2	106276	11-Apr-19 (CTTL, No.J19X02605)	Apr-20
Power Meter NRP2 Power sensor NRP6A	106276 101369	11-Apr-19 (CTTL, No.J19X02605) 11-Apr-19 (CTTL, No.J19X02605)	Apr-20 Apr-20
Power Meter NRP2	106276 101369	11-Apr-19 (CTTL, No.J19X02605)	Apr-20
Power Meter NRP2 Power sensor NRP6A Reference Probe EX3DV4 DAE4	106276 101369 SN 3617 SN 1555	11-Apr-19 (CTTL, No.J19X02605) 11-Apr-19 (CTTL, No.J19X02605) 31-Jan-19(SPEAG,No.EX3-3617_Jan19) 22-Aug-19(CTTL-SPEAG,No.Z19-60295)	Apr-20 Apr-20 Jan-20 Aug-20
Power Meter NRP2 Power sensor NRP6A Reference Probe EX3DV4 DAE4 Secondary Standards	106276 101369 SN 3617 SN 1555 ID #	11-Apr-19 (CTTL, No.J19X02605) 11-Apr-19 (CTTL, No.J19X02605) 31-Jan-19(SPEAG,No.EX3-3617_Jan19) 22-Aug-19(CTTL-SPEAG,No.Z19-60295) Cal Date(Calibrated by, Certificate No.)	Apr-20 Apr-20 Jan-20 Aug-20 Scheduled Calibration
Power Meter NRP2 Power sensor NRP6A Reference Probe EX3DV4 DAE4	106276 101369 SN 3617 SN 1555	11-Apr-19 (CTTL, No.J19X02605) 11-Apr-19 (CTTL, No.J19X02605) 31-Jan-19(SPEAG,No.EX3-3617_Jan19) 22-Aug-19(CTTL-SPEAG,No.Z19-60295)	Apr-20 Apr-20 Jan-20 Aug-20
Power Meter NRP2 Power sensor NRP6A Reference Probe EX3DV4 DAE4 Secondary Standards Signal Generator E4438C	106276 101369 SN 3617 SN 1555 ID # MY49071430	11-Apr-19 (CTTL, No.J19X02605) 11-Apr-19 (CTTL, No.J19X02605) 31-Jan-19(SPEAG,No.EX3-3617_Jan19) 22-Aug-19(CTTL-SPEAG,No.Z19-60295) Cal Date(Calibrated by, Certificate No.) 23-Jan-19 (CTTL, No.J19X00336) 24-Jan-19 (CTTL, No.J19X00547)	Apr-20 Apr-20 Jan-20 Aug-20 Scheduled Calibration Jan-20 Jan-20
Power Meter NRP2 Power sensor NRP6A Reference Probe EX3DV4 DAE4 Secondary Standards Signal Generator E4438C	106276 101369 SN 3617 SN 1555 ID # MY49071430 MY46110673	11-Apr-19 (CTTL, No.J19X02605) 11-Apr-19 (CTTL, No.J19X02605) 31-Jan-19(SPEAG,No.EX3-3617_Jan19) 22-Aug-19(CTTL-SPEAG,No.Z19-60295) Cal Date(Calibrated by, Certificate No.) 23-Jan-19 (CTTL, No.J19X00336)	Apr-20 Apr-20 Jan-20 Aug-20 Scheduled Calibration Jan-20
Power Meter NRP2 Power sensor NRP6A Reference Probe EX3DV4 DAE4 Secondary Standards Signal Generator E4438C NetworkAnalyzer E5071C	106276 101369 SN 3617 SN 1555 ID # MY49071430 MY46110673 Name	11-Apr-19 (CTTL, No.J19X02605) 11-Apr-19 (CTTL, No.J19X02605) 31-Jan-19(SPEAG,No.EX3-3617_Jan19) 22-Aug-19(CTTL-SPEAG,No.Z19-60295) Cal Date(Calibrated by, Certificate No.) 23-Jan-19 (CTTL, No.J19X00336) 24-Jan-19 (CTTL, No.J19X00547) Function	Apr-20 Apr-20 Jan-20 Aug-20 Scheduled Calibration Jan-20 Jan-20
Power Meter NRP2 Power sensor NRP6A Reference Probe EX3DV4 DAE4 Secondary Standards Signal Generator E4438C NetworkAnalyzer E5071C Calibrated by:	106276 101369 SN 3617 SN 1555 ID # MY49071430 MY46110673 Name Zhao Jing	11-Apr-19 (CTTL, No.J19X02605) 11-Apr-19 (CTTL, No.J19X02605) 31-Jan-19(SPEAG,No.EX3-3617_Jan19) 22-Aug-19(CTTL-SPEAG,No.Z19-60295) Cal Date(Calibrated by, Certificate No.) 23-Jan-19 (CTTL, No.J19X00336) 24-Jan-19 (CTTL, No.J19X00547) Function SAR Test Engineer	Apr-20 Apr-20 Jan-20 Aug-20 Scheduled Calibration Jan-20 Jan-20
Power Meter NRP2 Power sensor NRP6A Reference Probe EX3DV4 DAE4 Secondary Standards Signal Generator E4438C NetworkAnalyzer E5071C Calibrated by: Reviewed by: Approved by:	106276 101369 SN 3617 SN 1555 ID # MY49071430 MY46110673 Name Zhao Jing Lin Hao Qi Dianyuan	11-Apr-19 (CTTL, No.J19X02605) 11-Apr-19 (CTTL, No.J19X02605) 31-Jan-19(SPEAG,No.EX3-3617_Jan19) 22-Aug-19(CTTL-SPEAG,No.Z19-60295) Cal Date(Calibrated by, Certificate No.) 23-Jan-19 (CTTL, No.J19X00336) 24-Jan-19 (CTTL, No.J19X00547) Function SAR Test Engineer SAR Test Engineer SAR Project Leader	Apr-20 Apr-20 Jan-20 Aug-20 Scheduled Calibration Jan-20 Jan-20 Signature

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Glossary:

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

Calibration is Performed According to the Following Standards:

- a) IEEE Std 1528-2013, "IEEE Recommended Practice for Determining the Peak Spatial-Averaged Specific Absorption Rate (SAR) in the Human Head from Wireless Communications Devices: Measurement Techniques", June 2013
- b) IEC 62209-1, "Measurement procedure for assessment of specific absorption rate of human exposure to radio frequency fields from hand-held and body-mounted wireless communication devices- Part 1: Device used next to the ear (Frequency range of 300MHz to 6GHz)", July 2016
- c) IEC 62209-2, "Procedure to measure the Specific Absorption Rate (SAR) For wireless communication devices used in close proximity to the human body (frequency range of 30MHz to 6GHz)", March 2010
- d) KDB865664, SAR Measurement Requirements for 100 MHz to 6 GHz

Additional Documentation:

e) DASY4/5 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 parallel to the body axis.
- 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. 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	V52.10.3
Extrapolation	Advanced Extrapolation	
Phantom	Triple Flat Phantom 5.1C	
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	39.0 ± 6 %	1.77 mho/m ± 6 %
Head TSL temperature change during test	<1.0 °C		

SAR result with Head TSL

SAR averaged over 1 cm^3 (1 g) of Head TSL	Condition	
SAR measured	250 mW input power	13.1 W/kg
SAR for nominal Head TSL parameters	normalized to 1W	52.7 W/kg ± 18.8 % (k=2)
SAR averaged over 10 cm^3 (10 g) of Head TSL	Condition	
SAR measured	250 mW input power	5.98 W/kg
SAR for nominal Head TSL parameters	normalized to 1W	24.0 W/kg ± 18.7 % (k=2)

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Appendix (Additional assessments outside the scope of CNAS L0570)

Antenna Parameters with Head TSL

Impedance, transformed to feed point	53.7Ω+ 4.93 jΩ
Return Loss	- 24.5dB

General Antenna Parameters and Design

Electrical Delay (one direction)	1.017 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

Manufacture 11		
Manufactured by	SPEAG	
	or Erto	

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DASY5 Validation Report for Head TSL Test Laboratory: CTTL Bailing China

Date: 12.17.2019

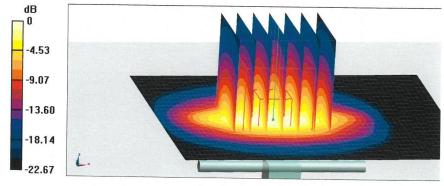
Test Laboratory: CTTL, Beijing, China **DUT: Dipole 2450 MHz; Type: D2450V2; Serial: D2450V2 - SN: 735** Communication System: UID 0, CW; Frequency: 2450 MHz; Duty Cycle: 1:1 Medium parameters used: f = 2450 MHz; $\sigma = 1.772$ S/m; $\varepsilon_r = 39.01$; $\rho = 1000$ kg/m3 Phantom section: Right Section DASY5 Configuration:

- Probe: EX3DV4 SN3617; ConvF(7.62, 7.62, 7.62) @ 2450 MHz; Calibrated: 1/31/2019
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1555; Calibrated: 8/22/2019
- Phantom: MFP_V5.1C ; Type: QD 000 P51CA; Serial: 1062
- Measurement SW: DASY52, Version 52.10 (3); SEMCAD X Version 14.6.13 (7474)

Dipole Calibration/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm Reference Value = 103.2 V/m; Power Drift = 0.03 dB

Peak SAR (extrapolated) = 27.9 W/kg

SAR(1 g) = 13.1 W/kg; SAR(10 g) = 5.98 W/kg Smallest distance from peaks to all points 3 dB below = 8.9 mmRatio of SAR at M2 to SAR at M1 = 47.5%Maximum value of SAR (measured) = 21.9 W/kg



0 dB = 21.9 W/kg = 13.40 dBW/kg

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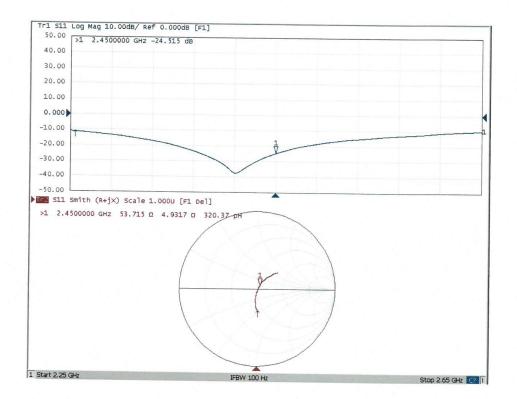


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Impedance Measurement Plot for Head TSL



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5GHz Dipole Calibration Certificate

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E-mail: cttl@china	DEN http:	//www.chinattl.cn Certificate No: Z	
Olicitt	and the second second	and the second	20-60232
CALIBRATION C	ERTIFICA	TE	
Object	D5GH	IzV2 - SN: 1040	
Calibration Procedure(s)			
(-)		1-003-01	
	Calibra	ation Procedures for dipole validation kits	
Calibration date:	June 2	23, 2020	
humidity<70%.		the closed laboratory facility: environment	temperature(22±3)°C and
humidity<70%. Calibration Equipment usec			temperature(22±3)°C and
humidity<70%. Calibration Equipment usec	I (M&TE critical f	for calibration)	
numidity<70%. Calibration Equipment used Primary Standards	I (M&TE critical f	for calibration) Cal Date(Calibrated by, Certificate No.)	Scheduled Calibration
numidity<70%. Calibration Equipment used Primary Standards Power Meter NRP2	I (M&TE critical f	for calibration) Cal Date(Calibrated by, Certificate No.) 04-Sep-19 (CTTL, No.J19X07825)	Scheduled Calibration Sep-20
numidity<70%. Calibration Equipment used Primary Standards Power Meter NRP2 Power sensor NRP8S	ID # 106277 104291	for calibration) Cal Date(Calibrated by, Certificate No.) 04-Sep-19 (CTTL, No.J19X07825) 04-Sep-19 (CTTL, No.J19X07825)	Scheduled Calibration Sep-20 Sep-20
humidity<70%. Calibration Equipment used Primary Standards Power Meter NRP2 Power sensor NRP8S ReferenceProbe EX3DV4	ID # 106277 104291 SN 7514	for calibration) Cal Date(Calibrated by, Certificate No.) 04-Sep-19 (CTTL, No.J19X07825) 04-Sep-19 (CTTL, No.J19X07825) 27-Sep-19(CTTL-SPEAG,No.Z19-60306) 22-Aug-19(CTTL-SPEAG,No.Z19-60295)	Scheduled Calibration Sep-20 Sep-20 Sep-20 Aug-20
humidity<70%. Calibration Equipment used Primary Standards Power Meter NRP2 Power sensor NRP8S ReferenceProbe EX3DV4 DAE4	ID# 106277 104291 SN 7514 SN 1555	for calibration) Cal Date(Calibrated by, Certificate No.) 04-Sep-19 (CTTL, No.J19X07825) 04-Sep-19 (CTTL, No.J19X07825) 27-Sep-19(CTTL-SPEAG,No.Z19-60306) 22-Aug-19(CTTL-SPEAG,No.Z19-60295) Cal Date(Calibrated by, Certificate No.)	Scheduled Calibration Sep-20 Sep-20 Sep-20 Aug-20 Scheduled Calibration
numidity<70%. Calibration Equipment used Primary Standards Power Meter NRP2 Power sensor NRP8S ReferenceProbe EX3DV4 DAE4 Secondary Standards	ID# 106277 104291 SN 7514 SN 1555 ID #	for calibration) Cal Date(Calibrated by, Certificate No.) 04-Sep-19 (CTTL, No.J19X07825) 04-Sep-19 (CTTL, No.J19X07825) 27-Sep-19(CTTL-SPEAG,No.Z19-60306) 22-Aug-19(CTTL-SPEAG,No.Z19-60295)	Scheduled Calibration Sep-20 Sep-20 Sep-20 Aug-20
humidity<70%. Calibration Equipment used Primary Standards Power Meter NRP2 Power sensor NRP8S ReferenceProbe EX3DV4 DAE4 Secondary Standards Signal Generator E4438C	ID# 106277 104291 SN 7514 SN 1555 ID# MY49071430	for calibration) Cal Date(Calibrated by, Certificate No.) 04-Sep-19 (CTTL, No.J19X07825) 04-Sep-19 (CTTL, No.J19X07825) 27-Sep-19(CTTL-SPEAG,No.Z19-60306) 22-Aug-19(CTTL-SPEAG,No.Z19-60295) Cal Date(Calibrated by, Certificate No.) 25-Feb-20 (CTTL, No.J20X00516)	Scheduled Calibration Sep-20 Sep-20 Sep-20 Aug-20 Scheduled Calibration Feb-21 Feb-21
humidity<70%. Calibration Equipment used Primary Standards Power Meter NRP2 Power sensor NRP8S ReferenceProbe EX3DV4 DAE4 Secondary Standards Signal Generator E4438C NetworkAnalyzerE5071C	ID # 106277 104291 SN 7514 SN 1555 ID # MY49071430 MY46107873	for calibration) Cal Date(Calibrated by, Certificate No.) 04-Sep-19 (CTTL, No.J19X07825) 04-Sep-19 (CTTL, No.J19X07825) 27-Sep-19(CTTL-SPEAG,No.Z19-60306) 22-Aug-19(CTTL-SPEAG,No.Z19-60295) Cal Date(Calibrated by, Certificate No.) 25-Feb-20 (CTTL, No.J20X00516) 10-Feb-20 (CTTL, No.J20X00515)	Scheduled Calibration Sep-20 Sep-20 Sep-20 Aug-20 Scheduled Calibration Feb-21
humidity<70%. Calibration Equipment used Primary Standards Power Meter NRP2 Power sensor NRP8S ReferenceProbe EX3DV4 DAE4 Secondary Standards Signal Generator E4438C NetworkAnalyzerE5071C	I (M&TE critical f 106277 104291 SN 7514 SN 1555 ID # MY49071430 MY46107873 Name	for calibration) Cal Date(Calibrated by, Certificate No.) 04-Sep-19 (CTTL, No.J19X07825) 04-Sep-19 (CTTL, No.J19X07825) 27-Sep-19(CTTL-SPEAG,No.Z19-60306) 22-Aug-19(CTTL-SPEAG,No.Z19-60295) Cal Date(Calibrated by, Certificate No.) 25-Feb-20 (CTTL, No.J20X00516) 10-Feb-20 (CTTL, No.J20X00515) Function	Scheduled Calibration Sep-20 Sep-20 Sep-20 Aug-20 Scheduled Calibration Feb-21 Feb-21
humidity<70%. Calibration Equipment used Primary Standards Power Meter NRP2 Power sensor NRP8S ReferenceProbe EX3DV4 DAE4 Secondary Standards Signal Generator E4438C	I (M&TE critical f 106277 104291 SN 7514 SN 1555 ID # MY49071430 MY46107873 Name	for calibration) Cal Date(Calibrated by, Certificate No.) 04-Sep-19 (CTTL, No.J19X07825) 04-Sep-19 (CTTL, No.J19X07825) 27-Sep-19(CTTL-SPEAG,No.Z19-60306) 22-Aug-19(CTTL-SPEAG,No.Z19-60295) Cal Date(Calibrated by, Certificate No.) 25-Feb-20 (CTTL, No.J20X00516) 10-Feb-20 (CTTL, No.J20X00515) Function	Scheduled Calibration Sep-20 Sep-20 Sep-20 Aug-20 Scheduled Calibration Feb-21 Feb-21
humidity<70%. Calibration Equipment used Primary Standards Power Meter NRP2 Power sensor NRP8S ReferenceProbe EX3DV4 DAE4 Secondary Standards Signal Generator E4438C NetworkAnalyzerE5071C	I (M&TE critical f 106277 104291 SN 7514 SN 1555 ID # MY49071430 MY46107873 Name Zhao Jing	for calibration) Cal Date(Calibrated by, Certificate No.) 04-Sep-19 (CTTL, No.J19X07825) 04-Sep-19 (CTTL, No.J19X07825) 27-Sep-19(CTTL-SPEAG,No.Z19-60306) 22-Aug-19(CTTL-SPEAG,No.Z19-60295) Cal Date(Calibrated by, Certificate No.) 25-Feb-20 (CTTL, No.J20X00516) 10-Feb-20 (CTTL, No.J20X00515) Function SAR Test Engineer	Scheduled Calibration Sep-20 Sep-20 Sep-20 Aug-20 Scheduled Calibration Feb-21 Feb-21

Certificate No: Z20-60232

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Glossary:

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

Calibration is Performed According to the Following Standards:

- a) IEEE Std 1528-2013, "IEEE Recommended Practice for Determining the Peak Spatial-Averaged Specific Absorption Rate (SAR) in the Human Head from Wireless Communications Devices: Measurement Techniques", June 2013
- b) IEC 62209-1, "Measurement procedure for assessment of specific absorption rate of human exposure to radio frequency fields from hand-held and body-mounted wireless communication devices- Part 1: Device used next to the ear (Frequency range of 300MHz to 6GHz)", July 2016
- c) IEC 62209-2, "Procedure to measure the Specific Absorption Rate (SAR) For wireless communication devices used in close proximity to the human body (frequency range of 30MHz to 6GHz)", March 2010
- d) KDB865664, SAR Measurement Requirements for 100 MHz to 6 GHz

Additional Documentation:

e) DASY4/5 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
 parallel to the body axis.
- 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. 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	Triple Flat Phantom 5.1C	
Distance Dipole Center - TSL	10 mm	with Spacer
Zoom Scan Resolution	dx, dy = 4 mm, dz = 1.4 mm	Graded Ratio = 1.4 (Z direction)
Frequency	5200 MHz ± 1 MHz 5300 MHz ± 1 MHz 5500 MHz ± 1 MHz 5600 MHz ± 1 MHz 5800 MHz ± 1 MHz	

a

g

Head TSL parameters at 5200 MHz

The following parameters and calculations were applied.

	Temperature	Permittivity	Conductivity
Nominal Head TSL parameters	22.0 °C	36.0	4.66 mho/m
Measured Head TSL parameters	(22.0 ± 0.2) °C	36.0 ± 6 %	4.65 mho/m ± 6 %
Head TSL temperature change during test	<1.0 °C		

SAR result with Head TSL at 5200 MHz

SAR averaged over 1 cm^3 (1 g) of Head TSL	Condition	
SAR measured	100 mW input power	7.59 W/kg
SAR for nominal Head TSL parameters	normalized to 1W	75.9 W/kg ± 24.4 % (k=2)
SAR averaged over 10 cm^3 (10 g) of Head TSL	Condition	
SAR measured	100 mW input power	2.17 W/kg
SAR for nominal Head TSL parameters	normalized to 1W	21.7 W/kg ± 24.2 % (k=2)

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Head TSL parameters at 5300 MHz

The following parameters and calculations were applied. Temperature Permittivity Conductivity Nominal Head TSL parameters 22.0 °C 35.9 4.76 mho/m (22.0 ± 0.2) °C **Measured Head TSL parameters** 35.8 ± 6 % 4.75 mho/m ± 6 % Head TSL temperature change during test <1.0 °C --------

SAR result with Head TSL at 5300 MHz

SAR averaged over 1 cm^3 (1 g) of Head TSL	Condition	
SAR measured	100 mW input power	7.84 W/kg
SAR for nominal Head TSL parameters	normalized to 1W	78.4 W/kg ± 24.4 % (k=2)
SAR averaged over 10 cm^3 (10 g) of Head TSL	Condition	
SAR measured	100 mW input power	2.24 W/kg
SAR for nominal Head TSL parameters	normalized to 1W	22.4 W/kg ± 24.2 % (k=2)

Head TSL parameters at 5500 MHz

The following parameters and calculations were applied.

	Temperature	Permittivity	Conductivity
Nominal Head TSL parameters	22.0 °C	35.6	4.96 mho/m
Measured Head TSL parameters	(22.0 ± 0.2) °C	35.5 ± 6 %	4.98 mho/m ± 6 %
Head TSL temperature change during test	<1.0 °C		

SAR result with Head TSL at 5500 MHz

SAR averaged over 1 cm^3 (1 g) of Head TSL	Condition	
SAR measured	100 mW input power	8.23 W/kg
SAR for nominal Head TSL parameters	normalized to 1W	82.2 W/kg ± 24.4 % (k=2)
SAR averaged over 10 cm^3 (10 g) of Head TSL	Condition	
SAR measured	100 mW input power	2.33 W/kg
SAR for nominal Head TSL parameters	normalized to 1W	23.3 W/kg ± 24.2 % (k=2)

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In Collaboration with



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Head TSL parameters at 5600 MHz

The following parameters and calculations were applied.

	Temperature	Permittivity	Conductivity
Nominal Head TSL parameters	22.0 °C	35.5	5.07 mho/m
Measured Head TSL parameters	(22.0 ± 0.2) °C	35.3 ± 6 %	5.09 mho/m ± 6 %
Head TSL temperature change during test	<1.0 °C		

SAR result with Head TSL at 5600 MHz

SAR averaged over 1 cm^3 (1 g) of Head TSL	Condition	
SAR measured	100 mW input power	8.07 W/kg
SAR for nominal Head TSL parameters	normalized to 1W	80.6 W/kg ± 24.4 % (k=2)
SAR averaged over 10 cm^3 (10 g) of Head TSL	Condition	
SAR measured	100 mW input power	2.30 W/kg
SAR for nominal Head TSL parameters	normalized to 1W	23.0 W/kg ± 24.2 % (k=2)

Head TSL parameters at 5800 MHz

The following parameters and calculations were applied.

	Temperature	Permittivity	Conductivity
Nominal Head TSL parameters	22.0 °C	35.3	5.27 mho/m
Measured Head TSL parameters	(22.0 ± 0.2) °C	35.0 ± 6 %	5.29 mho/m ± 6 %
Head TSL temperature change during test	<1.0 °C		

SAR result with Head TSL at 5800 MHz

SAR averaged over 1 cm^3 (1 g) of Head TSL	Condition	
SAR measured	100 mW input power	7.94 W/kg
SAR for nominal Head TSL parameters	normalized to 1W	79.3 W/kg ± 24.4 % (k=2)
SAR averaged over 10 cm^3 (10 g) of Head TSL	Condition	
SAR measured	100 mW input power	2.28 W/kg
SAR for nominal Head TSL parameters	normalized to 1W	22.8 W/kg ± 24.2 % (k=2)

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Body TSL parameters at 5200 MHz

The following parameters and calculations were applied.

	Temperature	Permittivity	Conductivity
Nominal Body TSL parameters	22.0 °C	49.0	5.30 mho/m
Measured Body TSL parameters	(22.0 ± 0.2) °C	49.2 ± 6 %	5.20 mho/m ± 6 %
Body TSL temperature change during test	<1.0 °C		

SAR result with Body TSL at 5200 MHz

SAR averaged over 1 cm^3 (1 g) of Body TSL	Condition	
SAR measured	100 mW input power	7.04 W/kg
SAR for nominal Body TSL parameters	normalized to 1W	70.4 W/kg ± 24.4 % (k=2)
SAR averaged over 10 cm^3 (10 g) of Body TSL	Condition	
SAR measured	100 mW input power	2.00 W/kg
SAR for nominal Body TSL parameters	normalized to 1W	20.0 W/kg ± 24.2 % (k=2)

Body TSL parameters at 5300 MHz

The following parameters and calculations were applied.

	Temperature	Permittivity	Conductivity
Nominal Body TSL parameters	22.0 °C	48.9	5.42 mho/m
Measured Body TSL parameters	(22.0 ± 0.2) °C	49.0 ± 6 %	5.33 mho/m ± 6 %
Body TSL temperature change during test	<1.0 °C		

SAR result with Body TSL at 5300 MHz

SAR averaged over 1 cm^3 (1 g) of Body TSL	Condition	
SAR measured	100 mW input power	7.37 W/kg
SAR for nominal Body TSL parameters	normalized to 1W	73.7 W/kg ± 24.4 % (k=2)
SAR averaged over 10 cm^3 (10 g) of Body TSL	Condition	
SAR measured	100 mW input power	2.10 W/kg
SAR for nominal Body TSL parameters	normalized to 1W	21.0 W/kg ± 24.2 % (k=2)

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