

Appendix G: LTE Down-Link Carrier Aggregation

The tables below show the supported frequency bands of the device for DL Inter-band and DL Intra-band combinations.

Power measurements were performed on the channel with the highest maximum output power from Tune-up Procedure on ANT1/7 antenna.

When carrier aggregation is limited to downlink only, uplink maximum output power (single carrier) is measured for the supported combinations of downlink carrier aggregation listed in the table below. In applying the power measurement procedures of KDB 941225 D05A and April 2018 TCB workshop for DL CA to qualify for UL SAR test exclusion, power measurement is required only for the subset in each row with the largest combination of frequency bands and CCs (far right most configuration highlighted in the table below).

Index	2CC	Restriction	Completely Covered by Measurement Superset	Index	3CC	Restriction	Completely Covered by Measurement Superset	Index	4CC	Restriction	Completely Covered by Measurement Superset	Index	5CC	Restriction	Completely Covered by Measurement Superset	Index	6CC	Restriction	Completely Covered by Measurement Superset
2CC # 1	CA_2A-2A		3CC #1	3CC # 1	CA_2A-2A-4A		4CC #1	4CC # 1	CA_2A-2A-4A-4A		No	5CC # 1	CA_2A-2A-5A-30A-66A		No	6CC # 1	CA_2A-46A-48D-66A	B46 SCC only	No
2CC # 2	CA_2A-4A		3CC #12	3CC # 2	CA_2A-2A-5A		4CC #2	4CC # 2	CA_2A-2A-4A-5A		No	5CC # 2	CA_2A-2A-5A-66A-66A		No	6CC # 2	CA_2A-46C-48C-66A	B46 SCC only	No
2CC # 3	CA_2A-5A		3CC #29	3CC # 3	CA_2A-2A-7A		4CC #6	4CC # 3	CA_2A-2A-4A-12A		No	5CC # 3	CA_2A-2A-5A-66B		No	6CC # 3	CA_2A-46D-48A-66A	B46 SCC only	No
2CC # 4	CA_2A-7A		3CC #24	3CC # 4	CA_2A-2A-12A		4CC #6	4CC # 4	CA_2A-2A-5A-30A		5CC #1	5CC # 4	CA_2A-2A-5A-66C		No	6CC # 4	CA_2A-46E-66A	B46 SCC only	No
2CC # 5	CA_2A-12A		3CC #29	3CC # 5	CA_2A-2A-13A		4CC #11	4CC # 5	CA_2A-2A-5A-66A		No	5CC # 5	CA_2A-2A-7A-12A-66A		No				
2CC # 6	CA_2A-13A		3CC #32	3CC # 6	CA_2A-2A-14A		4CC #12	4CC # 6	CA_2A-2A-7A-12A		5CC #5	5CC # 6	CA_2A-2A-12A-30A-66A		No				
2CC # 7	CA_2A-14A		3CC #34	3CC # 7	CA_2A-2A-29A	B29 SCC only	4CC #14	4CC # 7	CA_2A-2A-7A-66A		No	5CC # 7	CA_2A-2A-12A-66A-66A		No				
2CC # 8	CA_2A-17A		No	3CC # 8	CA_2A-2A-30A		4CC #15	4CC # 8	CA_2A-2A-12A-30A		5CC #6	5CC # 8	CA_2A-2A-14A-30A-66A		No				
2CC # 9	CA_2A-29A	B29 SCC only	3CC #36	3CC # 9	CA_2A-2A-46A	B46 SCC only	No	4CC # 9	CA_2A-2A-12A-66A		5CC #7	5CC # 9	CA_2A-2A-14A-66A-66A		No				
2CC # 10	CA_2A-30A		3CC #38	3CC # 10	CA_2A-2A-66A		4CC #15	4CC # 10	CA_2A-2A-12B		No	5CC # 10	CA_2A-2A-46D	B46 SCC only	No				
2CC # 11	CA_2A-46A	B46 SCC only	3CC #39	3CC # 11	CA_2A-2A-71A		4CC #18	4CC # 11	CA_2A-2A-13A-66A		No	5CC # 11	CA_2A-5A-30A-66A-66A		No				
2CC # 12	CA_2A-48A		3CC #43	3CC # 12	CA_2A-4A-4A		4CC #21	4CC # 12	CA_2A-2A-14A-30A		5CC #8	5CC # 12	CA_2A-5A-46D	B46 SCC only	No				
2CC # 13	CA_2A-66A		3CC #46	3CC # 13	CA_2A-4A-5A		4CC #23	4CC # 13	CA_2A-2A-14A-66A		5CC #9	5CC # 13	CA_2A-5B-39A-66A		No				
2CC # 14	CA_2A-71A		3CC #47	3CC # 14	CA_2A-4A-7A		4CC #25	4CC # 14	CA_2A-2A-29A-30A	B29 SCC only	No	5CC # 14	CA_2A-5B-66A-66A		No				
2CC # 15	CA_2C		3CC #50	3CC # 15	CA_2A-4A-12A		4CC #28	4CC # 15	CA_2A-2A-30A-66A		5CC #1	5CC # 15	CA_2A-5B-66B		No				
2CC # 16	CA_5A-7A		3CC #55	3CC # 16	CA_2A-4A-13A		No	4CC # 16	CA_2A-2A-46C	B46 SCC only	No	5CC # 16	CA_2A-5B-66C		No				
2CC # 17	CA_5A-25A		No	3CC # 17	CA_2A-4A-29A	B29 SCC only	4CC #30	4CC # 17	CA_2A-2A-66A-66A		5CC #2	5CC # 17	CA_2A-7A-7A-66A-66A		No				
2CC # 18	CA_5A-30A		3CC #57	3CC # 18	CA_2A-4A-30A		4CC #30	4CC # 18	CA_2A-2A-66A-71A		No	5CC # 18	CA_2A-7C-66A-66A		No				
				3CC # 19	CA_2A-4A-71A		No	4CC # 19	CA_2A-2A-66B		5CC #3	5CC # 19	CA_2A-12A-30A-66A-66A		No				
2CC # 20	CA_5A-41A		No	3CC # 20	CA_2A-5A-30A		4CC #31	4CC # 20	CA_2A-2A-66C		5CC #4	5CC # 20	CA_2A-13A-46D	B46 SCC only	No				
2CC # 21	CA_5A-46A	B46 SCC only	3CC #58	3CC # 21	CA_2A-5A-46A	B46 SCC only	No	4CC # 21	CA_2A-4A-4A-5A		No	5CC # 21	CA_2A-14A-30A-66A-66A		No				
2CC # 22	CA_5A-48A		No	3CC # 22	CA_2A-5A-66A		4CC #31	4CC # 22	CA_2A-4A-4A-12A		No	5CC # 22	CA_2A-46A-48C-66A	B46 SCC only	No				
2CC # 23	CA_5A-66A		3CC #60	3CC # 23	CA_2A-5B		4CC #36	4CC # 23	CA_2A-4A-5A-30A		No	5CC # 23	CA_2A-46A-48C-66A	B46 SCC only	No				
2CC # 24	CA_5B		3CC #63	3CC # 24	CA_2A-7A-7A		4CC #38	3CC # 24	CA_2A-4A-5B		No	5CC # 24	CA_2A-46A-48D	B46 SCC only	6CC #1				
2CC # 25	CA_7A-7A		3CC #65	3CC # 25	CA_2A-7A-12A		4CC #40	4CC # 25	CA_2A-4A-7A-7A		No	5CC # 25	CA_2A-46C-48A-66A	B46 SCC only	No				
2CC # 26	CA_7A-12A		3CC #68	3CC # 26	CA_2A-7A-13A		4CC #38	4CC # 26	CA_2A-4A-7A-12A		No	5CC # 26	CA_2A-46C-48C	B46 SCC only	6CC #2				
2CC # 27	CA_7A-13A		3CC #65	3CC # 27	CA_2A-7A-66A		4CC #41	4CC # 27	CA_2A-4A-7C		No	5CC # 27	CA_2A-46D-48A	B46 SCC only	6CC #3				
2CC # 28	CA_7A-26A		3CC #66	3CC # 28	CA_2A-7C		4CC #42	4CC # 28	CA_2A-4A-12A-30A		No	5CC # 28	CA_2A-46D-66A	B46 SCC only	6CC #3				
2CC # 29	CA_7A-46A	B46 SCC only	No	3CC # 29	CA_2A-12A-30A		4CC #44	4CC # 29	CA_2A-4A-12B		No	5CC # 29	CA_2A-46E	B46 SCC only	6CC #4				
2CC # 30	CA_7A-66A		3CC #67	3CC # 30	CA_2A-12A-66A		4CC #45	4CC # 30	CA_2A-4A-29A-30A	B29 SCC only	No	5CC # 30	CA_2A-48D-66A		6CC #1				
2CC # 31	CA_7B		No	3CC # 31	CA_2A-12B		4CC #29	4CC # 31	CA_2A-5A-30A-66A		5CC #1	5CC # 31	CA_2A-48E		No				
2CC # 32	CA_7C		3CC #71	3CC # 32	CA_2A-13A-46A	B46 SCC only	No	4CC # 32	CA_2A-5A-46C	B46 SCC only	No	5CC # 32	CA_5A-46D-66A	B46 SCC only	No				
2CC # 33	CA_12A-25A		No	3CC # 33	CA_2A-13A-66A		4CC #48	4CC # 33	CA_2A-5A-66A-66A		5CC #2	5CC # 33	CA_5B-30A-66A-66A		No				
2CC # 34	CA_12A-30A		3CC #75	3CC # 34	CA_2A-14A-30A		4CC #51	4CC # 34	CA_2A-5A-66B		5CC #3	5CC # 34	CA_7A-46E	B46 SCC only	No				
2CC # 35	CA_12A-46A	B46 SCC only	No	3CC # 35	CA_2A-14A-66A		4CC #52	4CC # 35	CA_2A-5A-66C		5CC #4	5CC # 35	CA_7C-46D	B46 SCC only	No				
2CC # 36	CA_12A-66A		3CC #76	3CC # 36	CA_2A-29A-30A	B29 SCC only	4CC #30	4CC # 36	CA_2A-5B-30A		5CC #13	5CC # 36	CA_13A-46D-66A	B46 SCC only	No				
2CC # 37	CA_12B		3CC #31	3CC # 37	CA_2A-29A-66A	B29 SCC only	4CC #53	4CC # 37	CA_2A-5B-66A		5CC #3	5CC # 37	CA_13A-46E	B46 SCC only	No				
2CC # 38	CA_13A-46A	B46 SCC only	3CC #78	3CC # 38	CA_2A-30A-66A		4CC #54	4CC # 38	CA_2A-7A-7A-13A		No	5CC # 38	CA_25A-25A-41D		No				
2CC # 39	CA_13A-48A		3CC #80	3CC # 39	CA_2A-46A-46A	B46 SCC only	4CC #55	4CC # 39	CA_2A-7A-7A-66A		5CC #17	5CC # 39	CA_41C-41D		No				
2CC # 40	CA_13A-66A		3CC #82	3CC # 40	CA_2A-46A-48A	B46 SCC only	4CC #57	4CC # 40	CA_2A-7A-12A-66A		5CC #5	5CC # 40	CA_46A-48D-66A	B46 SCC only	6CC #1				
2CC # 41	CA_14A-30A		3CC #85	3CC # 41	CA_2A-46A-66A	B46 SCC only	4CC #57	4CC # 41	CA_2A-7A-66A-66A		5CC #17	5CC # 41	CA_46C-48C-66A	B46 SCC only	6CC #2				
2CC # 42	CA_14A-66A		3CC #86	3CC # 42	CA_2A-46C	B46 SCC only	4CC #59	4CC # 42	CA_2A-7C-13A		No	5CC # 42	CA_46D-48A-66A	B46 SCC only	6CC #3				
2CC # 43	CA_25A-25A		3CC #87	3CC # 43	CA_2A-48A-48A		No	4CC # 43	CA_2A-7C-66A		5CC #18	5CC # 43	CA_46D-66A-66A	B46 SCC only	No				
2CC # 44	CA_25A-26A		3CC #87	3CC # 44	CA_2A-48A-66A		4CC #57	4CC # 44	CA_2A-12A-30A-66A		5CC #19	5CC # 44	CA_48E-66A	B46 SCC only	6CC #4				
2CC # 45	CA_25A-41A		3CC #88	3CC # 45	CA_2A-48C		4CC #58	4CC # 45	CA_2A-12A-66A-66A		5CC #19	5CC # 45	CA_48E-66A		No				
2CC # 46	CA_25A-46A	B46 SCC only	No	3CC # 46	CA_2A-66A-66A		4CC #64	4CC # 46	CA_2A-12A-66C		No								
2CC # 47	CA_26A-41A		No	3CC # 47	CA_2A-66A-71A		4CC #64	4CC # 47	CA_2A-13A-46C	B46 SCC only	No								
2CC # 48	CA_29A-30A	B29 SCC only	3CC #92	3CC # 48	CA_2A-66B		4CC #65	4CC # 48	CA_2A-13A-66A-66A		No								
2CC # 49	CA_29A-66A	B29 SCC only	3CC #93	3CC # 49	CA_2A-66C		4CC #67	4CC # 49	CA_2A-13A-66B		No								
2CC # 50	CA_30A-66A		3CC #94	3CC # 50	CA_2C-5A		No	4CC # 50	CA_2A-13A-66C		No								
2CC # 51	CA_41A-41A		No	3CC # 51	CA_2C-12A		No	4CC # 51	CA_2A-14A-30A-66A		5CC #21								
2CC # 52	CA_41C		3CC #95	3CC # 52	CA_2C-29A	B29 SCC only	No	4CC # 52	CA_2A-14A-66A-66A		5CC #21								
2CC # 53	CA_46A-66A	B46 SCC only	3CC #97	3CC # 53	CA_2C-30A		No	4CC # 53	CA_2A-29A-30A-66A	B29 SCC only	No								
2CC # 54	CA_48A-48A		3CC #101	3CC # 54	CA_2C-66A		4CC #68	4CC # 54	CA_2A-30A-66A-66A		5CC #21								
2CC # 55	CA_48A-66A		3CC #103	3CC # 55	CA_2A-7A-7A		No	4CC # 55	CA_2A-46A-46A-66A	B46 SCC only	No								
2CC # 56	CA_48C		3CC #102	3CC # 56	CA_5A-7C		No	4CC # 56	CA_2A-46A-46C	B46 SCC only	5CC #22								
2CC # 57	CA_56A-66A		3CC #106	3CC # 57	CA_5A-30A-66A		4CC #69	4CC # 57	CA_2A-46A-46A-66A	B46 SCC only	No								
2CC # 58	CA_66A-71A		3CC #106	3CC # 58	CA_5A-46A-66A	B46 SCC only	No	4CC # 58	CA_2A-46A-48C	B46 SCC only	5CC #23								
2CC # 59	CA_66B		3CC #107	3CC # 59	CA_5A-46C	B46 SCC only	4CC #70	4CC # 59	CA_2A-46C-48A	B46 SCC only	5CC #25								
2CC # 60	CA_66C		3CC #108	3CC # 60	CA_5A-66A-66A		5CC #2	4CC # 60	CA_2A-46C-66A	B46 SCC only	5CC #25								

Index	2CC	Restriction	Completely Covered by Measurement t Superset	Index	3CC	Restriction	Completely Covered by Measurement t Superset	Index	4CC	Restriction	Completely Covered by Measurement t Superset	Index	5CC	Restriction	Completely Covered by Measurement t Superset	Index	6CC	Restriction	Completely Covered by Measurement t Superset
				3CC # 61	CA_5A-66B		4CC #72	4CC # 61	CA_2A-46D	B46 SCC only	5CC #27								
				3CC # 62	CA_5A-66C		4CC #73	4CC # 62	CA_2A-48C-66A		5CC #23								
				3CC # 63	CA_5B-30A		4CC #74	4CC # 63	CA_2A-48D		5CC #30								
				3CC # 64	CA_5B-66A		4CC #75	4CC # 64	CA_2A-66A-66A-71A		No								
				3CC # 65	CA_7A-7A-13A		4CC #38	4CC # 65	CA_2A-66A-66B		No								
				3CC # 66	CA_7A-7A-26A		No	4CC # 66	CA_2A-66A-66C		No								
				3CC # 67	CA_7A-7A-66A		4CC #39	4CC # 67	CA_2A-66C-71A		No								
				3CC # 68	CA_7A-12A-66A		4CC #40	4CC # 68	CA_2C-66A-66A		No								
				3CC # 69	CA_7A-46C	B46 SCC only	No	4CC # 69	CA_5A-30A-66A-66A		5CC #11								
				3CC # 70	CA_7A-66A-66A		4CC #41	4CC # 70	CA_5A-46C-66A	B46 SCC only	No								
				3CC # 71	CA_7C-13A		No	4CC # 71	CA_5A-46D	B46 SCC only	5CC #11								
				3CC # 72	CA_7C-46A	B46 SCC only	No	4CC # 72	CA_5A-66A-66B		No								
				3CC # 73	CA_7C-66A		4CC #80	4CC # 73	CA_5A-66A-66C		No								
				3CC # 75	CA_12A-30A-66A		4CC #81	4CC # 74	CA_5B-30A-66A		5CC #13								
				3CC # 76	CA_12A-66A-66A		4CC #81	4CC # 75	CA_5B-66A-66A		5CC #34								
				3CC # 77	CA_13A-66C		4CC #46	4CC # 76	CA_5B-66B		5CC #15								
				3CC # 78	CA_13A-46A-66A	B46 SCC only	No	4CC # 77	CA_5B-66C		5CC #16								
				3CC # 79	CA_13A-46C	B46 SCC only	4CC #47	4CC # 78	CA_7A-7A-66A-66A		5CC #17								
				3CC # 80	CA_13A-48A-66A		No	4CC # 79	CA_7C-46C	B46 SCC only	No								
				3CC # 81	CA_13A-48C		4CC #84	4CC # 80	CA_7C-66A-66A		5CC #18								
				3CC # 82	CA_13A-66A-66A		4CC #48	4CC # 81	CA_12A-30A-66A-66A		5CC #19								
				3CC # 83	CA_13A-66B		4CC #85	4CC # 82	CA_12A-46C-66A	B46 SCC only	No								
				3CC # 84	CA_13A-66C		4CC #86	4CC # 83	CA_13A-46D	B46 SCC only	5CC #20								
				3CC # 85	CA_14A-30A-66A		4CC #87	4CC # 84	CA_13A-48C-66A		No								
				3CC # 86	CA_14A-66A-66A		4CC #87	4CC # 85	CA_13A-66A-66B		No								
				3CC # 87	CA_25A-25A-26A		No	4CC # 86	CA_13A-66A-66C		No								
				3CC # 88	CA_25A-25A-41A		No	4CC # 87	CA_14A-30A-66A-66A		5CC #21								
				3CC # 89	CA_25A-41C		4CC #88	4CC # 88	CA_25A-25A-41C		No								
				3CC # 90	CA_25A-46C	B46 SCC only	No	4CC # 89	CA_25A-41D		5CC #38								
				3CC # 91	CA_26A-41C		No	4CC # 90	CA_25A-46D	B46 SCC only	No								
				3CC # 92	CA_29A-30A-66A	B29 SCC only	4CC #53	4CC # 91	CA_41A-41D		No								
				3CC # 93	CA_29A-66A-66A	B29 SCC only	No	4CC # 92	CA_41C-41C		No								
				3CC # 94	CA_30A-66A-66A		4CC #54	4CC # 93	CA_41E		No								
				3CC # 95	CA_41A-41C		No	4CC # 94	CA_46A-46C-66A	B46 SCC only	5CC #22								
				3CC # 96	CA_41D		4CC #89	4CC # 95	CA_46A-46C-66A	B46 SCC only	5CC #23								
				3CC # 97	CA_46A-46A-66A	B46 SCC only	4CC #55	4CC # 96	CA_46C-48A-66A	B46 SCC only	5CC #25								
				3CC # 98	CA_46A-48A-66A	B46 SCC only	4CC #57	4CC # 97	CA_46C-66A-66A	B46 SCC only	No								
				3CC # 99	CA_46A-66A-66A	B46 SCC only	No	4CC # 98	CA_46D-66A	B46 SCC only	5CC #43								
				3CC # 100	CA_46C-66A	B46 SCC only	4CC #97	4CC # 99	CA_48A-48A-66A-66A		No								
				3CC # 101	CA_48A-48A-66A		4CC #99	4CC # 100	CA_48A-48C-66A		No								
				3CC # 102	CA_48A-48C		4CC #100	4CC # 101	CA_48C-66A-66A		No								
				3CC # 103	CA_48A-66A-66A		4CC #99	4CC # 102	CA_48D-66A		5CC #40								
				3CC # 104	CA_48C-66A		4CC #101	4CC # 103	CA_48E		5CC #45								
				3CC # 105	CA_48D		4CC #102												
				3CC # 106	CA_66A-66A-71A		No												
				3CC # 107	CA_66A-66B		4CC #85												
				3CC # 108	CA_66A-66C		4CC #86												
				3CC # 109	CA_86C-71A		4CC #67												

In applying the power measurement procedures of KDB 941225 D05A for DL CA to qualify for UL SAR test exclusion, power measurement is required only for the CA configuration with the largest aggregated DL CA BW in each frequency band, independently for contiguous and non-contiguous CA; however, if the same frequency band is used for both contiguous and non-contiguous CA, power measurement was performed using the configuration with the largest aggregated BW and maximum output power among contiguous and non-contiguous CA.

2CC DL CA Measured Results

E-UTRA CA configuration	CC1 (UL)					CC2 (DL)			Aggregated BW	CA Inactive (dBm)	CA Active (dBm)	Delta	2CC #
	Mode	BW (MHz)	Channel	Freq (MHz)	RB,Offset	BW (MHz)	Channel	Freq (MHz)					
CA_2A-17A	QPSK	20	18900	1880	1,49	10	5790	740	30	25.68	25.59	-0.08	8
CA_5A-25A	QPSK	10	20525	836.5	1,24	20	8365	1962.5	30	25.42	25.36	-0.05	17
CA_5A-38A	QPSK	10	20525	836.5	1,24	20	38000	2595	30	25.67	25.56	-0.11	19
CA_5A-41A	QPSK	10	20525	836.5	1,24	20	40620	2593	30	25.43	25.48	0.05	20
CA_5A-48A	QPSK	10	20525	836.5	1,24	20	55773	3603.3	30	25.36	25.54	0.19	22
CA_7A-46A	QPSK	20	3200	2665	1,49	20	50665	5537.5	40	25.50	25.59	0.10	29
CA_7B	QPSK	15	21076	2532.6	1,0	5	3169	2661.9	20	25.27	25.26	-0.01	31
CA_12A-25A	QPSK	5	23110	709	1,24	5	8665	1992.5	10	25.61	25.49	-0.12	33
CA_12A-46A	QPSK	5	23110	709	1,24	20	50665	5537.5	25	25.40	25.57	0.17	35
CA_25A-46A	QPSK	20	26140	1860	1,49	20	50665	5537.5	40	25.47	25.41	-0.06	46
CA_26A-41A	QPSK	10	26865	831.5	1,37	20	40842	2615.2	30	25.67	25.46	-0.21	47
CA_41A-41A	QPSK	20	39750	2506	1,0	20	41292	2660.2	40	25.67	25.36	-0.31	51

3CC DL CA Measured Results

E-UTRA CA configuration	CC1 (UL)					CC2 (DL)			CC3 (DL)			Aggregated BW	CA Inactive (dBm)	CA Active (dBm)	Delta	3CC #
	Mode	BW (MHz)	Channel	Freq (MHz)	RB,Offset	BW (MHz)	Channel	Freq (MHz)	BW (MHz)	Channel	Freq (MHz)					
CA_2A-2A-46A	QPSK	20	18700	1860	1,49	20	1100	1980	20	50665	5537.5	60	25.42	25.52	0.10	9
CA_2A-4A-13A	QPSK	20	18900	1880	1,49	20	2175	2132.5	10	5230	751	50	25.68	25.20	-0.48	16
CA_2A-4A-71A	QPSK	20	18900	1880	1,49	20	2175	2132.5	20	68761	634.5	60	25.41	25.20	-0.21	19
CA_2A-5A-46A	QPSK	20	18900	1880	1,49	10	2525	881.5	20	50665	5537.5	50	25.40	25.22	-0.19	21
CA_2A-13A-46A	QPSK	20	18900	1880	1,49	10	23230	782	20	50665	5537.5	50	25.19	25.63	0.44	32
CA_2A-48A-48A	QPSK	20	18900	1880	1,49	20	55934	3619.4	20	55340	3560	60	25.20	25.46	0.26	43
CA_2C-5A	QPSK	20	18801	1870.1	1,49	20	999	1969.9	10	2525	881.5	50	25.39	25.26	-0.14	50
CA_2C-12A	QPSK	20	18801	1870.1	1,49	20	999	1969.9	10	5095	737.5	50	25.30	25.25	-0.05	51
CA_2C-29A	QPSK	20	18801	1870.1	1,49	20	999	1969.9	10	9715	722.5	50	25.50	25.24	-0.26	52
CA_2C-30A	QPSK	20	18801	1870.1	1,49	20	999	1969.9	10	9820	2355	50	25.33	25.31	-0.02	53
CA_5A-7A-7A	QPSK	10	20525	836.5	1,24	20	3152	2660.2	20	3350	2680	50	25.68	25.23	-0.46	55
CA_5A-7C	QPSK	10	20525	836.5	1,24	20	2950	2640	20	3148	2659.8	50	25.55	25.38	-0.17	56
CA_5A-46A-66A	QPSK	10	20525	836.5	1,24	20	50665	5537.5	20	66536	2120	50	25.21	25.35	0.14	58
CA_7A-7A-26A	QPSK	20	3200	2665	1,49	20	20850	2510	15	8750	876.5	55	25.60	25.36	-0.24	66
CA_7A-46C	QPSK	20	3200	2665	1,49	20	50467	5517.7	20	50665	5537.5	60	25.31	25.69	0.37	69
CA_7C-13A	QPSK	20	2950	2640	1,49	20	3148	2659.8	10	23230	782	50	25.27	25.48	0.20	71
CA_7C-46A	QPSK	20	2950	2640	1,49	20	3148	2659.8	20	50665	5537.5	60	25.23	25.43	0.20	72
CA_13A-46A-66A	QPSK	10	23230	782	1,24	20	50665	5537.5	20	66786	2145	50	25.45	25.45	0.00	78
CA_13A-48A-66A	QPSK	10	23230	782	1,24	20	55990	3625	20	66786	2145	50	25.34	25.40	0.06	80
CA_25A-25A-26A	QPSK	20	26140	1860	1,49	20	8590	1985	10	8865	876.5	50	25.68	25.61	-0.07	87
CA_25A-25A-41A	QPSK	20	26140	1860	1,49	20	8590	1985	20	40340	2565	60	25.32	25.51	0.19	88
CA_25A-46C	QPSK	20	26140	1860	1,49	20	50467	5517.7	20	50665	5537.5	60	25.26	25.28	0.02	90
CA_26A-41C	QPSK	15	26865	831.5	1,37	20	40842	2615.2	20	41040	2645	55	25.35	25.47	0.12	91
CA_29A-66A-66A	QPSK	10	9715	722.5	1,24	20	66536	2120	20	67236	2190	50	25.45	25.42	-0.03	93
CA_41A-41C	QPSK	20	39750	2506	1,0	20	41292	2660.2	20	41490	2680	60	25.20	25.45	0.25	95
CA_46A-66A-66A	QPSK	20	50665	5537.5	1,49	20	66536	2120	20	67236	2190	60	25.65	25.53	-0.12	99
CA_66A-66A-71A	QPSK	20	132322	1745	1,0	20	132522	1765	20	68761	634.5	60	25.25	25.53	0.28	106

4CC DL CA Measured Results

E-UTRA CA configuration	CC1 (UL)					CC2 (DL)			CC3 (DL)			CC4 (DL)			Aggregated BW	CA Inactive (dBm)	CA Active (dBm)	Delta	4CC #
	Mode	BW (MHz)	Channel	Freq (MHz)	RB,Offset	BW (MHz)	Channel	Freq (MHz)	BW (MHz)	Channel	Freq (MHz)	BW (MHz)	Channel	Freq (MHz)					
CA_2A-2A-4A-4A	QPSK	20	18700	1860	1,49	20	1100	1980	20	2050	2120	20	2300	2145	80	25.54	25.41	-0.13	1
CA_2A-2A-4A-5A	QPSK	20	18900	1880	1,49	20	1100	1980	20	2175	2132.5	10	2525	881.5	70	25.50	25.20	-0.30	2
CA_2A-2A-4A-12A	QPSK	20	18900	1880	1,49	20	1100	1980	20	2175	2132.5	10	5095	737.5	70	25.47	25.21	-0.26	3
CA_2A-2A-5A-66A	QPSK	20	18700	1860	1,49	20	1100	1980	10	2525	881.5	20	66536	2120	70	25.45	25.55	0.10	5
CA_2A-2A-7A-66A	QPSK	20	18700	1860	1,49	20	1100	1980	20	2850	2630	20	66536	2120	80	25.66	25.26	-0.40	7
CA_2A-2A-12B	QPSK	20	18700	1860	1,49	20	1100	1980	5	5048	732.8	10	5120	740	55	25.48	25.44	-0.04	10
CA_2A-2A-13A-66A	QPSK	20	18900	1880	1,49	20	1100	1980	10	5230	751	20	66786	2145	70	25.58	25.48	-0.10	11
CA_2A-2A-29A-30A	QPSK	20	18700	1860	1,49	20	1100	1980	10	9715	722.5	20	66536	2120	70	25.34	25.46	0.12	14
CA_2A-2A-46C	QPSK	20	18700	1860	1,49	20	1100	1980	20	50467	5517.7	20	50665	5537.5	80	25.35	25.27	-0.08	16
CA_2A-2A-66A-71A	QPSK	20	18900	1880	1,49	20	1100	1980	20	66786	2145	20	68761	634.5	80	25.48	25.45	-0.02	18
CA_2A-4A-4A-5A	QPSK	20	18900	1880	1,49	20	2175	2132.5	20	2175	2132.5	10	2525	881.5	70	25.37	25.57	0.20	21
CA_2A-4A-4A-12A	QPSK	20	18900	1880	1,49	20	2175	2132.5	20	2175	2132.5	10	5095	737.5	70	25.58	25.30	-0.28	22
CA_2A-4A-5A-30A	QPSK	20	18900	1880	1,49	20	2175	2132.5	10	2525	881.5	10	9820	2355	60	25.44	25.35	-0.09	23
CA_2A-4A-5B	QPSK	20	18900	1880	1,49	20	2175	2132.5	10	2476	876.6	10	2575	886.5	60	25.36	25.48	0.12	24
CA_2A-4A-7A-7A	QPSK	20	18900	1880	1,49	20	2175	2132.5	20	2850	2630	20	3350	2680	80	25.24	25.41	0.17	25
CA_2A-4A-7A-12A	QPSK	20	18900	1880	1,49	20	2175	2132.5	20	2850	2630	10	5095	737.5	70	25.54	25.58	0.04	26
CA_2A-4A-7C	QPSK	20	18900	1880	1,49	20	2175	2132.5	20	2950	2640	20	3148	2659.8	80	25.21	25.47	0.26	27
CA_2A-4A-12A-30A	QPSK	20	18900	1880	1,49	20	2175	2132.5	10	5095	737.5	10	9820	2355	60	25.42	25.25	-0.16	28
CA_2A-4A-12B	QPSK	20	18900	1880	1,49	20	2175	2132.5	5	5048	732.8	10	5120	740	55	25.40	25.26	-0.15	29
CA_2A-4A-29A-30A	QPSK	20	18900	1880	1,49	20	2175	2132.5	10	9715	722.5	10	9820	2355	60	25.49	25.39	-0.10	30
CA_2A-5A-46C	QPSK	20	18900	1880	1,49	10	2525	881.5	20	50467	5517.7	20	50665	5537.5	70	25.41	25.47	0.05	32
CA_2A-7A-7A-13A	QPSK	20	18900	1880	1,49	20	2850	2630	20	3350	2680	10	5230	751	70	25.44	25.27	-0.17	38
CA_2A-7C-13A	QPSK	20	18900	1880	1,49	20	2950	2640	20	3148	2659.8	10	5230	751	70	25.20	25.49	0.29	42
CA_2A-12A-66C	QPSK	20	18900	1880	1,49	10	5095	737.5	20	66787	2145.1	20	66985	2164.9	70	25.44	25.51	0.07	46
CA_2A-13A-46C	QPSK	20	18900	1880	1,49	10	5230	751	20	50467	5517.7	20	50665	5537.5	70	25.57	25.44	-0.12	47
CA_2A-13A-66A-66A	QPSK	20	18900	1880	1,49	10	5230	751	20	66536	2120	20	67236	2190	70	25.40	25.65	0.26	48
CA_2A-13A-66B	QPSK	20	18900	1880	1,49	10	5230	751	10	66837	2150.1	10	66936	2160	50	25.40	25.68	0.28	49
CA_2A-13A-66C	QPSK	20	18900	1880	1,49	10	5230	751	20	66787	2145.1	20	66985	2164.9	70	25.24	25.43	0.19	50
CA_2A-29A-30A-66A	QPSK	20	18900	1880	1,49	10	9715	722.5	10	9820	2355	20	66536	2120	60	25.61	25.25	-0.36	53
CA_2A-46A-46A-66A	QPSK	20	18900	1880	1,49	20	50467	5517.7	20	50665	5537.5	20	66536	2120	80	25.54	25.22	-0.32	55
CA_2A-46A-48A-66A	QPSK	20	18900	1880	1,49	20	50665	5537.5	20	55934	3619.4	20	66536	2120	80	25.38	25.62	0.23	57
CA_2A-66A-66A-71A	QPSK	20	18900	1880	1,49	20	66536	2120	20	67236	2190	20	68761	634.5	80	25.25	25.54	0.29	64
CA_2A-66A-66B	QPSK	20	18900	1880	1,49	20	66536	2120	10	67187	2185.1	10	67286	2195	60	25.57	25.59	0.03	65
CA_2A-66A-66C	QPSK	20	18900	1880	1,49	20	66536	2120	20	67038	2170.2	20	67236	2190	80	25.46	25.34	-0.12	66
CA_2A-66C-71A	QPSK	20	18900	1880	1,49	20	67038	2170.2	20	67236	2190	20	68761	634.5	80	25.45	25.38	-0.06	67
CA_2C-66A-66A	QPSK	20	18801	1870.1	1,0	20	999	1969.9	20	66536	2120	20	67236	2190	80	25.24	25.47	0.24	68
CA_5A-46C-66A	QPSK	10	20525	836.5	1,24	20	50467	5517.7	20	50665	5537.5	20	66536	2120	70	25.40	25.56	0.16	70
CA_5A-66A-66B	QPSK	10	20525	836.5	1,24	20	66536	2120	10	67187	2185.1	10	67286	2195	50	25.41	25.42	0.01	72
CA_5A-66A-66C	QPSK	10	20525	836.5	1,24	20	66536	2120	20	67038	2170.2	20	67236	2190	70	25.52	25.20	-0.33	73
CA_7C-46C	QPSK	20	21100	2535	1,0	20	21300	2555	20	50467	5517.7	20	50665	5537.5	80	25.29	25.56	0.27	79
CA_13A-46C-66A	QPSK	10	23230	782	1,24	20	50467	5517.7	20	50665	5537.5	20	66536	2120	70	25.23	25.24	0.00	82
CA_13A-48C-66A	QPSK	10	23230	782	1,24	20	55934	3619.4	20	55736	3599.6	20	66536	2120	70	25.32	25.43	0.11	84
CA_13A-66A-66B	QPSK	10	23230	782	1,24	20	66536	2120	10	67187	2185.1	10	67286	2195	50	25.45	25.24	-0.21	85
CA_13A-66A-66C	QPSK	10	23230	782	1,24	20	66536	2120	20	67038	2170.2	20	67236	2190	70	25.64	25.60	-0.04	86
CA_25A-25A-41C	QPSK	5	26665	1912.5	1,49	5	8321	1958.1	20	40842	2615.2	20	41040	2635	50	25.30	25.65	0.35	88
CA_25A-46D	QPSK	5	26665	1912.5	1,49	20	50467	5517.7	20	50665	5537.5	20	50863	5057.3	65	25.53	25.51	-0.02	90
CA_41A-41D	QPSK	20	39750	2506	1,49	20	41094	2640.4	20	41292	2660.2	20	41490	2680	80	25.33	25.44	0.11	91
CA_41C-41C	QPSK	20	39750	2506	1,0	20	39948	2525.8	20	41292	2660.2	20	41490	2680	80	25.23	25.39	0.16	92
CA_46C-66A-66A	QPSK	20	50467	5517.7	1,0	20	50665	5537.5	20	66536	2120	20	67236	2190	80	25.31	25.32	0.01	97
CA_48A-48C-66A	QPSK	20	55934	3619.4	1,49	20	55538	3579.8	20	55340	3560	10	66536	2120	70	25.66	25.46	-0.21	100
CA_48C-66A-66A	QPSK	20	55934	3619.4	1,49	20	55736	3599.6	10	66536	2120	10	66936	2160	60	25.61	25.51	-0.10	101

5CC DL CA Measured Results

E-UTRA CA configuration	CC1 (UL)					CC2 (DL)			CC3 (DL)			CC4 (DL)			CC5 (DL)			Aggregated BW	CA Inactive (dBm)	CA Active (dBm)	Delta	SCC #
	Mode	BW (MHz)	Channel	Freq (MHz)	RB, Offset	BW (MHz)	Channel	Freq (MHz)	BW (MHz)	Channel	Freq (MHz)	BW (MHz)	Channel	Freq (MHz)	BW (MHz)	Channel	Freq (MHz)					
CA_2A-2A-5A-30A-66A	QPSK	20	18900	1880	1,49	20	1100	1980	10	2525	881.5	10	9820	2355	20	66786	2145	80	25.62	25.25	-0.37	1
CA_2A-2A-5A-66A-66A	QPSK	20	18900	1880	1,49	20	1100	1980	10	2525	881.5	20	66536	2120	20	67236	2190	90	25.43	25.36	-0.06	2
CA_2A-2A-5A-66B	QPSK	20	18900	1880	1,49	20	1100	1980	10	2525	881.5	10	66837	2150.1	10	66936	2160	70	25.31	25.31	0.00	3
CA_2A-2A-5A-66C	QPSK	20	18900	1880	1,49	20	1100	1980	10	2525	881.5	20	66787	2145.1	20	66985	2164.9	90	25.30	25.47	0.17	4
CA_2A-2A-7A-12A-66A	QPSK	20	18900	1880	1,49	20	1100	1980	20	2850	2630	10	5095	737.5	20	66786	2145	90	25.54	25.49	-0.05	5
CA_2A-2A-12A-30A-66A	QPSK	20	18700	1860	1,49	20	1100	1980	10	5095	737.5	10	9820	2355	20	66786	2145	80	25.63	25.68	0.05	6
CA_2A-2A-12A-66A-66A	QPSK	20	18900	1880	1,49	20	1100	1980	10	5095	737.5	20	66536	2120	20	67236	2190	90	25.67	25.56	-0.12	7
CA_2A-2A-14A-30A-66A	QPSK	20	18700	1860	1,49	20	1100	1980	10	5095	737.5	10	9820	2355	20	66786	2145	80	25.62	25.65	0.04	8
CA_2A-2A-14A-66A-66A	QPSK	20	18900	1880	1,49	20	1100	1980	10	5330	763	20	66536	2120	20	67236	2190	90	25.55	25.39	-0.16	9
CA_2A-2A-46D	QPSK	20	18900	1880	1,49	20	1100	1980	20	50467	5517.7	20	50665	5537.5	20	50863	5057.3	100	25.51	25.21	-0.30	10
CA_2A-5A-30A-66A-66A	QPSK	20	18900	1880	1,49	10	2525	881.5	10	9820	2355	20	66536	2120	20	67236	2190	80	25.57	25.35	-0.22	11
CA_2A-5A-46D	QPSK	20	18900	1880	1,49	10	2525	881.5	10	2525	881.5	20	66536	2120	20	67236	2190	80	25.51	25.45	-0.06	12
CA_2A-5B-30A-66A	QPSK	20	18900	1880	1,49	10	2476	876.6	10	2575	886.5	10	9820	2355	20	66786	2145	70	25.29	25.25	-0.04	13
CA_2A-5B-66A-66A	QPSK	20	18900	1880	1,49	10	2476	876.6	10	2575	886.5	20	66536	2120	20	67236	2190	80	25.67	25.56	-0.12	14
CA_2A-5B-66B	QPSK	20	18900	1880	1,49	10	2476	876.6	10	2575	886.5	10	66787	2145.1	10	66985	2164.9	60	25.62	25.60	-0.03	15
CA_2A-5B-66C	QPSK	20	18900	1880	1,49	10	2476	876.6	10	2575	886.5	20	66787	2145.1	20	66985	2164.9	80	25.47	25.33	-0.14	16
CA_2A-7A-7A-66A-66A	QPSK	20	18900	1880	1,49	20	3200	2665	20	20850	2510	20	66536	2120	20	67236	2190	100	25.61	25.46	-0.15	17
CA_2A-7C-66A-66A	QPSK	20	18900	1880	1,49	20	2950	2640	20	3148	2659.8	20	66536	2120	20	67236	2190	100	25.49	25.26	-0.23	18
CA_2A-12A-30A-66A-66A	QPSK	20	18900	1880	1,49	10	5095	737.5	10	9820	2355	20	66536	2120	20	67236	2190	80	25.65	25.23	-0.42	19
CA_2A-13A-46D	QPSK	20	18900	1880	1,49	10	5230	751	20	50467	5517.7	20	50665	5537.5	20	50863	5557.3	90	25.50	25.24	-0.26	20
CA_2A-14A-30A-66A-66A	QPSK	20	18900	1880	1,49	10	5330	763	10	9820	2355	20	66536	2120	20	67236	2190	80	25.59	25.42	-0.17	21
CA_2A-46A-46C-66A	QPSK	20	18900	1880	1,49	20	50665	5537.5	20	50467	5517.7	20	50665	5537.5	20	66536	2120	100	25.52	25.40	-0.12	22
CA_2A-46A-48C-66A	QPSK	20	18900	1880	1,49	20	50665	5537.5	20	55934	3619.4	20	55736	3599.6	20	66536	2120	100	25.41	25.51	0.10	23
CA_2A-46C-48A-66A	QPSK	20	18900	1880	1,49	20	50467	5517.7	20	50665	5537.5	20	55934	3619.4	20	66536	2120	100	25.25	25.68	0.42	25
CA_2A-48E	QPSK	20	18900	1880	1,49	20	55934	3619.4	20	55736	3599.6	20	55538	3579.8	20	55340	3560	100	25.39	25.39	0.00	31
CA_5A-46D-66A	QPSK	10	20525	836.5	1,24	20	50467	5517.7	20	50665	5537.5	20	50863	5557.3	20	66536	2120	90	25.27	25.30	0.03	32
CA_5B-30A-66A-66A	QPSK	10	20476	831.6	1,24	10	2575	886.5	10	9820	2355	20	66536	2120	20	67236	2190	70	25.45	25.22	-0.23	33
CA_7A-46E	QPSK	20	2850	2630	1,49	20	50467	5517.7	20	50665	5537.5	20	50863	5557.3	20	51061	5577.1	100	25.34	25.30	-0.04	34
CA_7C-46D	QPSK	20	2950	2640	1,49	20	3148	2659.8	20	50467	5517.7	20	50665	5537.5	20	50863	5557.3	100	25.21	25.62	0.41	35
CA_13A-46D-66A	QPSK	10	23230	782	1,24	20	50467	5517.7	20	50665	5537.5	20	50863	5557.3	20	66536	2120	90	25.68	25.37	-0.32	36
CA_13A-46E	QPSK	10	23230	782	1,24	20	50467	5517.7	20	50665	5537.5	20	50863	5557.3	20	51061	5577.1	90	25.33	25.58	0.26	37
CA_25A-25A-41D	QPSK	5	8665	1992.5	1,49	5	8321	1958.1	20	40056	2536.5	20	40254	2556.4	20	40452	2576.2	70	25.62	25.33	-0.29	38
CA_41C-41D	QPSK	20	40521	2583.1	1,0	20	40719	2602.9	20	39750	2506	20	39948	2525.8	20	40146	2545.6	100	25.23	25.63	0.40	39
CA_46D-66A-66A	QPSK	20	50467	5517.7	1,49	20	50665	5537.5	20	50863	5057.3	20	66536	2120	20	67236	2190	100	25.33	25.30	-0.03	43
CA_48E-66A	QPSK	20	55934	3619.4	1,49	20	55736	3599.6	20	55538	3579.8	20	55340	3560	10	66811	2147.5	90	25.53	25.33	-0.20	45

6CC DL CA Measured Results

E-UTRA CA configuration	CC1 (UL)					CC2 (DL)			CC3 (DL)			CC4 (DL)			CC5 (DL)			CC6 (DL)			Aggregated BW	CA Inactive (dBm)	CA Active (dBm)	Delta	SCC #
	Mode	BW (MHz)	Channel	Freq (MHz)	RB, Offset	BW (MHz)	Channel	Freq (MHz)	BW (MHz)	Channel	Freq (MHz)	BW (MHz)	Channel	Freq (MHz)	BW (MHz)	Channel	Freq (MHz)	BW (MHz)	Channel	Freq (MHz)					
CA_2A-46A-48D-66A	QPSK	20	900	18900	1,49	20	50665	5537.5	20	55934	3619.4	20	55736	3599.6	20	55538	3579.8	20	66536	2120	120	25.68	25.61	-0.07	1
CA_2A-46C-48C-66A	QPSK	20	900	18900	1,49	20	50467	5517.7	20	50665	5537.5	20	55934	3619.4	20	55736	3599.6	20	66536	2120	120	25.36	25.46	0.10	2
CA_2A-46D-48A-66A	QPSK	20	900	18900	1,49	20	50467	5517.7	20	50665	5537.5	20	50863	5557.3	20	55934	3619.4	20	66536	2120	120	25.46	25.31	-0.15	3
CA_2A-46E-66A	QPSK	20	900	18900	1,49	20	50467	5517.7	20	50665	5537.5	20	50863	5557.3	20	51061	5577.1	20	66536	2120	120	25.62	25.51	-0.11	4