

Appendix F LTE Downlink Carrier Aggregation

Index	2CC	Completely Covered by Measurement Superset
2CC #1	[2A]-[4A]	3CC #7
2CC #2	[2A]-5A	3CC #12
2CC #3	[2A]-[7A]	3CC #9
2CC #4	[2A]-12A	3CC #3
2CC #5	[2A]-13A	3CC #4
2CC #6	[2A]-[66A]	3CC #5
2CC #7	[4A]-5A	
2CC #8	[4A]-[7A]	3CC #9
2CC #9	[4A]-12A	3CC #10
2CC #10	[4A]-13A	
2CC #11	5A-[7A]	
2CC #12	5A-[66A]	3CC #12
2CC #13	[7A]-12A	3CC #14
2CC #14	[7A]-13A	3CC #29
2CC #15	12A-[66A]	3CC #31
2CC #16	13A-[66A]	3CC #32
2CC #17	[2A]-[48A]	3CC #20
2CC #18	[2A]-71A	3CC #6
2CC #19	[4A]-71A	3CC #12
2CC #20	[48A]-[66A]	3CC #21
2CC #21	[66A]-71A	3CC #22
2CC #22	[2C]	3CC #40
2CC #23	[7C]	3CC #15
2CC #24	[48C]	3CC #36
2CC #25	[66C]	3CC #38
2CC #26	[2A]-[2A]	3CC #3
2CC #27	[4A]-[4A]	3CC #23
2CC #28	[7A]-[7A]	3CC #13
2CC #29	[25A]-[25A]	
2CC #30	[66A]-[66A]	3CC #21
2CC #31	[48A]-[48A]	3CC #19
2CC #32	13A-[48A]	
2CC #33	[7A]-[66A]	
2CC #34	[7A]-[25A]	
2CC #35	[25A]-[66A]	
2CC #36	[66B]	

Index	3CC	Completely Covered by Measureme nt Superset
3CC #1	[2A]-[2A]-[4A]	
3CC #2	[2A]-[2A]-5A	
3CC #3	[2A]-[2A]-12A	
3CC #4	[2A]-[2A]-13A	
3CC #5	[2A]-[2A]-[66A]	
3CC #6	[2A]-[2A]-71A	
3CC #7	[2A]-[4A]-[4A]	
3CC #8	[2A]-[4A]-5A	
3CC #9	[2A]-[4A]-[7A]	
3CC #10	[2A]-[4A]-12A	
3CC #11	[2A]-[4A]-71A	
3CC #12	[2A]-5A-[66A]	
3CC #13	[2A]-[7A]-[7A]	
3CC #14	[2A]-[7A]-12A	
3CC #15	[2A]-[7C]	
3CC #16	[2A]-12A-[66A]	
3CC #17	[2A]-[4A]-12A	
3CC #18	[2A]-13A-[66A]	
3CC #19	[2A]-[48A]-[48A]	
3CC #20	[2A]-[48A]-[66A]	
3CC #21	[2A]-[66A]-[66A]	
3CC #22	[2A]-[66A]-71A	
3CC #23	[4A]-[4A]-12A	
3CC #24	[4A]-[4A]-71A	
3CC #25	[4A]-[7A]-[7A]	
3CC #26	[4A]-[7A]-12A	
3CC #27	[4A]-[7C]	
3CC #28	5A-[66A]-[66A]	
3CC #29	[7A]-[7A]-13A	
3CC #30	[7C]-13A	
3CC #31	12A-[66A]-[66A]	
3CC #32	13A-[66A]-[66A]	
3CC #33	[48A]-[48A]-[66A]	
3CC #34	[66A]-[66A]-71A	
3CC #35	[2A]-[48C]	
3CC #36	[48C]-[66A]	
3CC #37	[2A]-[7A]-13A	
3CC #38	[12A]-[66C]	
3CC #39	[2A]-[66C]	
3CC #40	[2C]-[66A]	
3CC #41	[66C]-71A	
3CC #42	[48D]	

E-UTRA CA Configuration	PCC								SCC1				SCC2				LTE DLCA Tx Power (dBm)	LTE Single Carrier Tx Power (dBm)
	Band	Mode	BW (MHz)	UL Ch	UL Freq. (MHz)	DL Ch	DL Freq. (MHz)	RB /Offset	Band	BW (MHz)	DL Ch	DL Freq. (MHz)	Band	BW (MHz)	DL Ch	DL Freq. (MHz)		
[4A]-[13A]	LTE 13	QPSK	10	23230	782.0	5230	751.0	1@49	LTE 4	20	2175	2132.5					23.07	23.52
5A-[7A]	LTE 7	QPSK	20	21100	2535.0	3100	2655.0	1@50	LTE 5	10	2525	881.5					23.21	23.41
[25A]-[25A]	LTE 25	QPSK	20	26365	1882.5	8365	1962.5	1@0	LTE 25	20	8590	1985.0					23.15	23.49
13A-[48A]	LTE 13	QPSK	10	23230	782.0	5230	751.0	1@49	LTE 48	20	55990	3625.0					23.01	23.52
	LTE 48	QPSK	20	56207	3646.7	56207	3646.7	1@50	LTE 13	10	5230	751.0					22.52	22.87
[7A]-[66A]	LTE 7	QPSK	20	21100	2535.0	3100	2655.0	1@50	LTE 66	20	66786	2145.0					23.02	23.41
	LTE 66	QPSK	20	132332	1745.0	66796	2146.0	1@99	LTE 7	20	3100	2655.0					22.75	23.12
[7A]-[25A]	LTE 7	QPSK	20	21100	2535.0	3100	2655.0	1@50	LTE 25	20	8365	1962.5					23.17	23.41
	LTE 25	QPSK	20	26365	1882.5	8365	1962.5	1@0	LTE 7	20	3100	2655.0					23.05	23.49
[25A]-[66A]	LTE 25	QPSK	20	26365	1882.5	8365	1962.5	1@0	LTE 66	20	66786	2145.0					23.03	23.49
	LTE 66	QPSK	20	132332	1745.0	66796	2146.0	1@99	LTE 25	20	8365	1962.5					22.78	23.12
[66B]	LTE 66	QPSK	20	132332	1745.0	66796	2146.0	1@99	LTE 66	20	67236	2190.0					22.63	23.12
[2A]-[2A]-12A	LTE 12	QPSK	10	23095	707.5	5095	737.5	1@0	LTE 2	20	900	1960.0	LTE 2	20	1100	1980.0	23.19	23.54
[2A]-[2A]-13A	LTE 13	QPSK	10	23230	782.0	5230	751.0	1@49	LTE 2	20	900	1960.0	LTE 2	20	1100	1980.0	23.03	23.52
[2A]-[2A]-[66A]	LTE 66	QPSK	20	132332	1745.0	66796	2146.0	1@99	LTE 2	20	900	1960.0	LTE 2	20	1100	1980.0	22.86	23.12
[2A]-[2A]-71A	LTE 71	QPSK	20	133297	680.5	68751	633.5	1@99	LTE 2	20	900	1960.0	LTE 2	20	1100	1980.0	23.03	23.12
[2A]-13A-71A	LTE 13	QPSK	10	23230	782.0	5230	751.0	1@49	LTE 2	20	900	1960.0	LTE 71	20	68786	637.0	23.14	23.52
	LTE 71	QPSK	20	133297	680.5	68751	633.5	1@99	LTE 2	20	900	1960.0	LTE 13	10	5230	751.0		23.39
[2A]-[4A]-[7A]	LTE 7	QPSK	20	21100	2535.0	3100	2655.0	1@50	LTE 2	20	900	1960.0	LTE 4	20	2175	2132.5	23.05	23.41
[2A]-[4A]-12A	LTE 12	QPSK	10	23095	707.5	5095	737.5	1@0	LTE 2	20	900	1960.0	LTE 4	20	2175	2132.5	23.27	23.54
[2A]-[4A]-71A	LTE 71	QPSK	20	133297	680.5	68751	633.5	1@99	LTE 2	20	900	1960.0	LTE 4	20	2175	2132.5	23.17	23.54
[2A]-5A-[66A]	LTE 66	QPSK	20	132332	1745.0	66796	2146.0	1@99	LTE 2	20	900	1960.0	LTE 5	10	2525	881.5	22.79	23.12
[2A]-[7A]-[7A]	LTE 7	QPSK	20	21100	2535.0	3100	2655.0	1@50	LTE 2	20	900	1960.0	LTE 7	20	3350	2680.0	23.16	23.41
[2A]-[7A]-12A	LTE 7	QPSK	20	21100	2535.0	3100	2655.0	1@50	LTE 2	20	900	1960.0	LTE 12	10	5095	737.5	23.06	23.41
	LTE 12	QPSK	10	23095	707.5	5095	737.5	1@0	LTE 2	20	900	1960.0	LTE 7	20	3100	2655.0	23.22	23.54
[2A]-[7C]	LTE 7	QPSK	20	20850	2510.0	2850	2630.0	1@0	LTE 7	20	3048	2649.8	LTE 2	20	900	1960.0	22.71	22.75
[2A]-12A-[66A]	LTE 12	QPSK	10	23095	707.5	5095	737.5	1@0	LTE 2	20	900	1960.0	LTE 66	20	66786	2145.0	22.85	23.54
	LTE 66	QPSK	20	132332	1745.0	66796	2146.0	1@99	LTE 2	20	900	1960.0	LTE 12	10	5095	737.5	22.64	23.12
[2A]-13A-[66A]	LTE 13	QPSK	10	23230	782.0	5230	751.0	1@49	LTE 2	20	900	1960.0	LTE 66	20	66786	2145.0	23.05	23.52
	LTE 66	QPSK	20	132332	1745.0	66796	2146.0	1@99	LTE 2	20	900	1960.0	LTE 13	10	5230	751.0	22.78	23.12

E-UTRA CA Configuration	PCC								SCC1				SCC2				LTE DLCA Tx Power (dBm)	LTE Single Carrier Tx Power (dBm)
	Band	Mode	BW (MHz)	UL Ch	UL Freq. (MHz)	DL Ch	DL Freq. (MHz)	RB /Offset	Band	BW (MHz)	DL Ch	DL Freq. (MHz)	Band	BW (MHz)	DL Ch	DL Freq. (MHz)		
[2A]-[48A]-[48A]	LTE 48	QPSK	20	56207	3646.7	56207	3646.7	1@50	LTE 48	20	56640	3690.0	LTE 2	20	900	1960.0	22.57	22.87
[2A]-[48A]-[66A]	LTE 48	QPSK	20	56207	3646.7	56207	3646.7	1@50	LTE 2	20	900	1960.0	LTE 66	20	66786	2145.0	22.67	22.87
	LTE 66	QPSK	20	132332	1745.0	66796	2146.0	1@99	LTE 2	20	900	1960.0	LTE 48	20	55990	3625.0	22.61	23.12
[2A]-[66A]-[66A]	LTE 66	QPSK	20	132332	1745.0	66796	2146.0	1@99	LTE 66	20	67236	2190.0	LTE 2	20	900	1960.0	22.74	23.12
[2A]-[66A]-71A	LTE 66	QPSK	20	132332	1745.0	66796	2146.0	1@99	LTE 2	20	900	1960.0	LTE 71	20	68786	637.0	22.82	23.12
	LTE 71	QPSK	20	133297	680.5	68751	633.5	1@99	LTE 2	20	900	1960.0	LTE 66	20	66786	2145.0	23.17	23.39
[4A]-[4A]-12A	LTE 12	QPSK	10	23095	707.5	5095	737.5	1@0	LTE 4	20	2050	2120.0	LTE 4	20	2300	2145.0	23.11	23.54
[4A]-[4A]-71A	LTE 71	QPSK	20	133297	680.5	68751	633.5	1@99	LTE 4	20	2175	2132.5	LTE 4	20	2300	2145.0	23.10	23.39
[4A]-[7A]-[7A]	LTE 7	QPSK	20	21100	2535.0	3100	2655.0	1@50	LTE 7	20	3350	2680.0	LTE 4	20	2175	2132.5	23.27	23.41
[4A]-[7A]-12A	LTE 7	QPSK	20	21100	2535.0	3100	2655.0	1@50	LTE 4	20	2175	2132.5	LTE 12	10	5095	737.5	22.98	23.41
	LTE 12	QPSK	10	23095	707.5	5095	737.5	1@0	LTE 4	20	2175	2132.5	LTE 7	20	3100	2655.0	23.20	23.54
[4A]-[7C]	LTE 7	QPSK	20	20850	2510.0	2850	2630.0	1@0	LTE 7	20	3048	2649.8	LTE 4	20	2175	2132.5	22.71	22.75
5A-[66A]-[66A]	LTE 66	QPSK	20	132332	1745.0	66796	2146.0	1@99	LTE 66	20	67236	2190.0	LTE 5	10	2525	881.5	22.83	23.12
[7A]-[7A]-13A	LTE 7	QPSK	20	21100	2535.0	3100	2655.0	1@50	LTE 7	20	3350	2680.0	LTE 13	10	5230	751.0	22.92	23.41
	LTE 13	QPSK	10	23230	782.0	5230	751.0	1@49	LTE 7	20	3100	2655.0	LTE 7	20	3350	2680.0	13.13	23.52
[7C]-13A	LTE 7	QPSK	20	20850	2510.0	2850	2630.0	1@0	LTE 7	20	3048	2649.8	LTE 13	10	5230	751.0	22.67	22.75
	LTE 13	QPSK	10	23230	782.0	5230	751.0	1@49	LTE 7	20	2850	2630.0	LTE 7	20	3048	2649.8	23.11	23.52
12A-[66A]-[66A]	LTE 12	QPSK	10	23095	707.5	5095	737.5	1@0	LTE 66	20	66786	2145.0	LTE 66	20	67236	2190.0	22.93	23.54
	LTE 66	QPSK	20	132332	1745.0	66796	2146.0	1@99	LTE 66	20	67236	2190.0	LTE 12	10	5095	737.5	23.01	23.12
13A-[66A]-[66A]	LTE 13	QPSK	10	23230	782.0	5230	751.0	1@49	LTE 66	20	66786	2145.0	LTE 66	20	67236	2190.0	23.07	23.52
	LTE 66	QPSK	20	132332	1745.0	66796	2146.0	1@99	LTE 66	20	67236	2190.0	LTE 13	10	5230	751.0	22.83	23.12
[48A]-[48A]-[66A]	LTE 48	QPSK	20	56207	3646.7	56207	3646.7	1@50	LTE 48	20	55990	3625.0	LTE 66	20	66786	2145.0	22.48	22.87
	LTE 66	QPSK	20	132332	1745.0	66796	2146.0	1@99	LTE 48	20	55990	3625.0	LTE 48	20	56640	3690.0	22.67	23.12
[66A]-[66A]-71A	LTE 66	QPSK	20	132332	1745.0	66796	2146.0	1@99	LTE 66	20	67236	2190.0	LTE 71	20	68786	637.0	22.81	23.12
	LTE 71	QPSK	20	133297	680.5	68751	633.5	1@99	LTE 66	20	66786	2145.0	LTE 66	20	67236	2190.0	23.03	23.39
[2A]-[48C]	LTE 48	QPSK	20	56207	3646.7	56207	3646.7	1@50	LTE 48	20	55340	3560.0	LTE 2	20	900	1960.0	22.47	22.87
[48C]-[66A]	LTE 48	QPSK	20	56207	3646.7	56207	3646.7	1@50	LTE 48	20	55340	3560.0	LTE 66	20	66786	2145.0	22.45	22.87
	LTE 66	QPSK	20	132332	1745.0	66796	2146.0	1@99	LTE 48	20	55340	3560.0	LTE 48	20	55538	3579.8	22.66	23.12
[2A]-[7A]-13A	LTE 7	QPSK	20	21100	2535.0	3100	2655.0	1@50	LTE 2	20	900	1960.0	LTE 13	10	5230	751.0	23.08	23.41
	LTE 13	QPSK	10	23230	782.0	5230	751.0	1@49	LTE 2	20	900	1960.0	LTE 7	20	3100	2655.0	23.09	23.52

E-UTRA CA Configuration	PCC								SCC1				SCC2				LTE DLCA Tx Power (dBm)	LTE Single Carrier Tx Power (dBm)
	Band	Mode	BW (MHz)	UL Ch	UL Freq. (MHz)	DL Ch	DL Freq. (MHz)	RB /Offset	Band	BW (MHz)	DL Ch	DL Freq. (MHz)	Band	BW (MHz)	DL Ch	DL Freq. (MHz)		
12A-[66C]	LTE 12	QPSK	10	23095	707.5	5095	737.5	1@0	LTE 66	20	66786	2145.0	LTE 66	20	66984	2164.8	23.11	23.54
	LTE 66	QPSK	20	132572	1770.0	67036	2170.0	1@0	LTE 66	20	66838	2150.2	LTE 12	10	5095	737.5	22.51	22.72
[2A]-[66C]	LTE 66	QPSK	20	132572	1770.0	67036	2170.0	1@0	LTE 66	20	66838	2150.2	LTE 2	20	900	1960.0	22.47	22.72
[2C]-[66A]	LTE 66	QPSK	20	132332	1745.0	66796	2146.0	1@99	LTE 2	20	900	1960.0	LTE 2	20	702	1940.2	22.81	23.12
[66C]-71A	LTE 66	QPSK	20	132332	1745.0	67036	2170.0	1@99	LTE 66	20	66838	2150.2	LTE 71	20	68786	637.0	22.44	22.72
	LTE 71	QPSK	20	133297	680.5	68751	633.5	1@99	LTE 66	20	67036	2170.0	LTE 66	20	66838	2150.2	22.94	23.39
[48D]	LTE 48	QPSK	20	55773	3603.3	55773	3603.3	1@99	LTE 48	20	55575	3583.5	LTE 48	20	55377	3563.7	22.29	22.77