

Appendix J. Measured Uplink Carrier Aggregation(CA) Result

The UL CA measuring result is shown as below.

Uplink Carrier Aggregation Scenarios Conducted Power (Full)

Configure	Combination	PCC							SCC							Measurement Power		
		Band	BW (MHz)	Modulation	RB Size	RB Offset	UL Channel	UL Frequency (MHz)	Band	BW (MHz)	Modulation	RB Size	RB Offset	UL Channel	UL Frequency (MHz)	Maximum Tune-up Power	Single Carrier Tx Power without UL-CA Active (dBm)	Tx Power with UL-CA Active (dBm)
																		Total
Intra Band Contiguous	5B	5	10	QPSK10M	1	0	20450	829	5	10	QPSK10M	1	49	20549	838.9	25.0	24.73	14.89
					1	49						25.0	24.43			24.38		
		5	10	QPSK10M	1	0	20476	831.6	5	10	QPSK10M	1	49	20575	841.5	25.0	24.96	14.90
					1	49						25.0	24.66			24.22		
		5	10	QPSK10M	1	0	20501	834.1	5	10	QPSK10M	1	49	20600	844	25.0	24.63	14.93
					1	49						25.0	24.33			24.23		
	7C	7	20	QPSK20M	1	0	20850	2510	7	20	QPSK20M	1	99	21048	2529.8	24.0	23.61	15.76
					1	99						24.0	23.39			23.38		
		7	20	QPSK20M	1	0	21001	2525.1	7	20	QPSK20M	1	99	21199	2544.9	24.0	23.55	15.96
					1	99						24.0	23.33			23.32		
		7	20	QPSK20M	1	0	21152	2540.2	7	20	QPSK20M	1	99	21350	2560	24.0	23.78	15.67
					1	99						24.0	23.56			22.98		
	38C	38	20	QPSK20M	1	0	37850	2580	38	20	QPSK20M	1	99	38048	2602.5	24.0	23.69	18.56
					1	99						24.0	23.41			22.60		
		38	20	QPSK20M	1	0	37901	2585.1	38	20	QPSK20M	1	99	38099	2604.9	24.0	23.82	18.39
					1	99						24.0	23.62			22.55		
		38	20	QPSK20M	1	0	37925	2590.2	38	20	QPSK20M	1	99	38150	2610	24.0	23.79	18.31
					1	99						24.0	23.59			22.57		
	40C	40	10	QPSK10M	1	0	38700	2305	40	10	QPSK10M	1	49	38948	2329.8	24.0	23.53	16.82
					1	49						24.0	23.31			23.17		
		40	10	QPSK10M	1	0	39051	2340.1	40	10	QPSK10M	1	49	39249	2359.9	24.0	23.56	16.88
					1	49						24.0	23.34			23.24		
		40	10	QPSK10M	1	0	39352	2370.2	40	10	QPSK10M	1	49	39600	2395	24.0	23.63	16.75
					1	49						24.0	23.41			23.04		
	41C	41	20	QPSK20M	1	0	39750	2506	41	20	QPSK20M	1	99	39948	2525.8	25.5	24.99	19.21
					1	99						25.5	24.53			23.76		
		41	20	QPSK20M	1	0	40529	2583.9	41	20	QPSK20M	1	99	40712	2602.2	25.5	25.21	19.10
					1	99						25.5	24.77			23.67		
		41	20	QPSK20M	1	0	41292	2660.2	41	20	QPSK20M	1	99	41490	2680	25.5	25.02	18.50
					1	99						25.5	24.58			23.25		
	43C	43	20	QPSK20M	1	0	43590	3600	43	20	QPSK20M	1	99	43788	3619.8	25.0	24.62	17.40
					1	99						25.0	24.57			24.18		
		43	20	QPSK20M	1	0	44590	3700	43	20	QPSK20M	1	99	44788	3719.8	25.0	24.58	17.51
					1	99						25.0	24.53			24.29		
		43	20	QPSK20M	1	0	45589	3800	43	20	QPSK20M	1	99	45392	3780.2	25.0	24.64	17.84
					1	99						25.0	24.59			24.41		
	48C	48	20	QPSK20M	1	0	55340	3560	48	20	QPSK20M	1	99	55538	3579.8	25.0	24.52	17.45
					1	99						25.0	24.45			24.25		
		48	20	QPSK20M	1	0	55891	3615.1	48	20	QPSK20M	1	99	56089	3634.9	25.0	24.47	17.35
					1	99						25.0	24.41			24.29		
		48	20	QPSK20M	1	0	56442	3670.2	48	20	QPSK20M	1	99	56640	3690	25.0	24.69	17.24
					1	99						25.0	24.63			24.29		
	66B	66	10	QPSK20M	1	0	132022	1715	66	10	QPSK20M	1	49	132121	1724.9	24.0	23.39	13.86
					1	49						24.0	22.97			22.93		
		66	10	QPSK20M	1	0	132373	1750.1	66	10	QPSK20M	1	49	132472	1760	24.0	23.85	13.92
					1	49						24.0	23.37			23.32		
		66	10	QPSK20M	1	0	132523	1765.1	66	10	QPSK20M	1	49	132622	1775	24.0	23.97	14.11
					1	49						24.0	23.62			23.39		
66C	66	20	QPSK20M	1	0	132072	1720	66	20	QPSK20M	1	99	132270	1739.8	24.0	23.4	15.51	
				1	99						24.0	22.99			22.98			
	66	20	QPSK20M	1	0	132323	1745.1	66	20	QPSK20M	1	99	132521	1764.9	24.0	23.89	15.50	
				1	99						24.0	23.42			23.17			
	66	20	QPSK20M	1	0	132374	1750.2	66	20	QPSK20M	1	99	132572	1770	24.0	23.98	15.59	
				1	99						24.0	23.63			23.23			

Uplink Carrier Aggregation Scenarios Conducted Power (Full)

Configure	Combination	PCC								SCC						Measurement Power		
		Band	BW (MHz)	Modulation	RB Size	RB Offset	UL Channel	UL Frequency (MHz)	Band	BW (MHz)	Modulation	RB Size	RB Offset	UL Channel	UL Frequency (MHz)	Maximum Tune-up Power	Single Carrier Tx Power without UL-CA Active (dBm)	Tx Power with UL-CA Active (dBm)
																		Total
Inter Band	2A-4A	2	20	QPSK20M	1	0	18700	1860	4	20	QPSK20M	1	99	20175	1732.5	24.0	23.93	23.71
					1	99						24.0	23.84			23.56		
		2	20	QPSK20M	1	0	18900	1880	4	20	QPSK20M	1	99	20175	1732.5	24.0	23.82	23.45
					1	99						24.0	23.75			23.38		
		2	20	QPSK20M	1	0	19100	1900	4	20	QPSK20M	1	99	20175	1732.5	24.0	23.91	23.29
					1	99						24.0	23.81			23.19		
	2A-5A	2	20	QPSK20M	1	0	18700	1860	5	10	QPSK10M	1	49	20525	836.5	24.0	23.93	23.01
					1	99						24.0	23.84			22.89		
		2	20	QPSK20M	1	0	18900	1880	5	10	QPSK10M	1	49	20525	836.5	24.0	23.82	23.18
					1	99						24.0	23.75			22.94		
		2	20	QPSK20M	1	0	19100	1900	5	10	QPSK10M	1	49	20525	836.5	24.0	23.91	23.23
					1	99						24.0	23.81			22.72		
	2A-7A	2	20	QPSK20M	1	0	18700	1860	7	20	QPSK20M	1	99	21100	2535	24.0	23.93	23.01
					1	99						24.0	23.84			23.18		
		2	20	QPSK20M	1	0	18900	1880	7	20	QPSK20M	1	99	21100	2535	24.0	23.82	22.67
					1	99						24.0	23.75			23.72		
		2	20	QPSK20M	1	0	19100	1900	7	20	QPSK20M	1	99	21100	2535	24.0	23.91	22.50
					1	99						24.0	23.81			23.43		
	2A-12A	2	20	QPSK20M	1	0	18700	1860	12	10	QPSK10M	1	49	23095	707.5	24.0	23.93	23.61
					1	99						24.0	23.84			23.78		
		2	20	QPSK20M	1	0	18900	1880	12	10	QPSK10M	1	49	23095	707.5	24.0	23.82	23.27
					1	99						24.0	23.75			23.34		
		2	20	QPSK20M	1	0	19100	1900	12	10	QPSK10M	1	49	23095	707.5	24.0	23.91	23.10
					1	99						24.0	23.81			23.51		
	2A-13A	2	20	QPSK20M	1	0	18700	1860	13	10	QPSK10M	1	49	23230	782	24.0	23.93	22.81
					1	99						24.0	23.84			22.98		
		2	20	QPSK20M	1	0	18900	1880	13	10	QPSK10M	1	49	23230	782	24.0	23.82	22.47
					1	99						24.0	23.75			23.52		
		2	20	QPSK20M	1	0	19100	1900	13	10	QPSK10M	1	49	23230	782	24.0	23.91	22.30
					1	99						24.0	23.81			23.23		
	2A-66A	2	20	QPSK20M	1	0	18700	1860	66	20	QPSK20M	1	99	132322	1745	24.0	23.93	23.41
					1	99						24.0	23.84			23.58		
		2	20	QPSK20M	1	0	18900	1880	66	20	QPSK20M	1	99	132322	1745	24.0	23.82	23.07
					1	99						24.0	23.75			23.14		
		2	20	QPSK20M	1	0	19100	1900	66	20	QPSK20M	1	99	132322	1745	24.0	23.91	22.90
					1	99						24.0	23.81			23.31		
	4A-5A	4	20	QPSK20M	1	0	20050	1720	5	10	QPSK10M	1	49	20525	836.5	24.0	23.83	21.91
					1	99						24.0	23.69			23.22		
		4	20	QPSK20M	1	0	20175	1732.5	5	10	QPSK10M	1	49	20525	836.5	24.0	23.87	21.72
					1	99						24.0	23.73			23.08		
		4	20	QPSK20M	1	0	20300	1745	5	10	QPSK10M	1	49	20525	836.5	24.0	23.99	21.71
					1	99						24.0	23.94			23.25		
	4A-12A	4	20	QPSK20M	1	0	20050	1720	12	10	QPSK10M	1	49	23095	707.5	24.0	23.83	21.61
					1	99						24.0	23.69			23.19		
		4	20	QPSK20M	1	0	20175	1732.5	12	10	QPSK10M	1	49	23095	707.5	24.0	23.87	21.39
					1	99						24.0	23.73			23.19		
		4	20	QPSK20M	1	0	20300	1745	12	10	QPSK10M	1	49	23095	707.5	24.0	23.99	21.39
					1	99						24.0	23.94			23.12		

Uplink Carrier Aggregation Scenarios Conducted Power (Full)

Confugure	Combination	PCC							SCC							Measurement Power		
		Band	BW (MHz)	Modulation	RB Size	RB Offset	UL Channel	UL Frequency (MHz)	Band	BW (MHz)	Modulation	RB Size	RB Offset	UL Channel	UL Frequency (MHz)	Maximum Tune-up Power	Single Carrier Tx Power without UL-CA Active (dBm)	Tx Power with UL-CA Active (dBm)
																		Total
Inter Band	4A-13A	4	20	QPSK20M	1	0	20050	1720	13	10	QPSK10M	1	49	23230	782	24.0	23.83	21.48
					1	99						24.0	23.69			22.79		
		4	20	QPSK20M	1	0	20175	1732.5	13	10	QPSK10M	1	49	23230	782	24.0	23.87	21.29
					1	99						24.0	23.73			22.65		
		4	20	QPSK20M	1	0	20300	1745	13	10	QPSK10M	1	49	23230	782	24.0	23.99	21.28
					1	99						24.0	23.94			22.82		
	5A-66A	5	10	QPSK10M	1	0	20450	829	66	20	QPSK20M	1	99	132322	1745	25.0	24.73	21.18
					1	49						25.0	24.43			22.76		
		5	10	QPSK10M	1	0	20525	836.5	66	20	QPSK20M	1	99	132322	1745	25.0	24.96	20.96
					1	49						25.0	24.66			22.76		
		5	10	QPSK10M	1	0	20600	844	66	20	QPSK20M	1	99	132322	1745	25.0	24.63	20.96
					1	49						25.0	24.33			22.69		
	12A-66A	12	10	QPSK10M	1	0	23060	704	66	20	QPSK20M	1	99	132322	1745	25.0	24.88	21.26
					1	49						25.0	24.79			22.57		
		12	10	QPSK10M	1	0	23095	707.5	66	20	QPSK20M	1	99	132322	1745	25.0	24.67	21.07
					1	49						25.0	24.58			22.43		
		12	10	QPSK10M	1	0	23130	711	66	20	QPSK20M	1	99	132322	1745	25.0	24.62	21.06
					1	49						25.0	24.52			22.60		
	13A-66A	13	10	QPSK10M	1	0	23230	782	66	20	QPSK20M	1	99	132322	1745	25.0	24.93	20.96
					1	49						25.0	24.84			22.54		
		13	10	QPSK10M	1	0	23230	782	66	20	QPSK20M	1	99	132322	1745	25.0	24.93	20.74
					1	49						25.0	24.84			22.47		
		13	10	QPSK10M	1	0	23230	782	66	20	QPSK20M	1	99	132322	1745	24.0	23.53	21.30
					1	49						24.0	23.31			23.07		
40A-42A	40	20	QPSK20M	1	0	38750	2310	42	20	QPSK20M	1	99	43340	3575	24.0	23.56	21.31	
				1	99						24.0	23.34			23.16			
	40	20	QPSK20M	1	0	39150	2350	42	20	QPSK20M	1	99	43340	3575	24.0	23.63	21.29	
				1	99						24.0	23.41			23.19			
	40	20	QPSK20M	1	0	39550	2390	42	20	QPSK20M	1	99	43340	3575	24.0	23.41	23.19	
				1	99						24.0	23.41			23.19			

Head Uplink Carrier Aggregation Scenarios Conducted Power (RCV)

Configure	Combination	PCC							SCC							Measurement Power		
		Band	BW (MHz)	Modulation	RB Size	RB Offset	UL Channel	UL Frequency (MHz)	Band	BW (MHz)	Modulation	RB Size	RB Offset	UL Channel	UL Frequency (MHz)	Maximum Tune-up Power	Single Carrier Tx Power without UL-CA Active (dBm)	Tx Power with UL-CA Active (dBm)
																		Total
Intra Band Contiguous	7C_Ant 2	7	20	QPSK20M	1	0	20850	2510	7	20	QPSK20M	1	99	21048	2529.8	23.5	23.36	15.23
					1	99						23.5	23.25			22.96		
		7	20	QPSK20M	1	0	21001	2525.1	7	20	QPSK20M	1	99	21199	2544.9	23.5	23.44	15.46
					1	99						23.5	23.33			22.78		
		7	20	QPSK20M	1	0	21152	2540.2	7	20	QPSK20M	1	99	21350	2560	23.5	23.47	15.23
					1	99						23.5	23.36			22.44		
	7C_Ant 9	7	20	QPSK20M	1	0	20850	2510	7	20	QPSK20M	1	99	21048	2529.8	19.5	19.34	10.99
					1	99						19.5	19.29			18.59		
		7	20	QPSK20M	1	0	21001	2525.1	7	20	QPSK20M	1	99	21199	2544.9	19.5	19.42	11.44
					1	99						19.5	19.37			18.69		
		7	20	QPSK20M	1	0	21152	2540.2	7	20	QPSK20M	1	99	21350	2560	19.5	19.46	11.24
					1	99						19.5	19.41			18.23		
	40C_Ant 2	40	10	QPSK10M	1	0	38700	2305	40	10	QPSK10M	1	99	38948	2329.8	23.5	23.43	16.36
					1	99						23.5	23.36			22.52		
		40	10	QPSK10M	1	0	39051	2340.1	40	10	QPSK10M	1	99	39249	2359.9	23.5	23.45	16.38
					1	99						23.5	23.38			22.60		
		40	10	QPSK10M	1	0	39352	2370.2	40	10	QPSK10M	1	99	39600	2395	23.5	23.48	16.19
					1	99						23.5	23.41			22.58		
	66B_Ant 9	66	10	QPSK20M	1	0	132022	1715	66	10	QPSK20M	1	49	132121	1724.9	18.0	17.68	7.49
					1	49						18.0	17.51			16.62		
		66	10	QPSK20M	1	0	132373	1750.1	66	10	QPSK20M	1	49	132472	1760	18.0	17.66	7.65
					1	49						18.0	17.55			17.05		
		66	10	QPSK20M	1	0	132523	1765.1	66	10	QPSK20M	1	49	132622	1775	18.0	17.75	8.11
					1	49						18.0	17.68			16.78		
	66C_Ant 9	66	20	QPSK20M	1	0	132072	1720	66	20	QPSK20M	1	99	132270	1739.8	18.0	17.77	9.30
					1	99						18.0	17.6			16.35		
		66	20	QPSK20M	1	0	132323	1745.1	66	20	QPSK20M	1	99	132521	1764.9	18.0	17.82	9.22
					1	99						18.0	17.65			16.93		
66		20	QPSK20M	1	0	132374	1750.2	66	20	QPSK20M	1	99	132572	1770	18.0	17.93	9.15	
				1	99						18.0	17.76			16.66			

Hotspot Uplink Carrier Aggregation Scenarios Conducted Power (Hotspot On)

Configuure	Combination	PCC							SCC							Measurement Power		
		Band	BW (MHz)	Modulation	RB Size	RB Offset	UL Channel	UL Frequency (MHz)	Band	BW (MHz)	Modulation	RB Size	RB Offset	UL Channel	UL Frequency (MHz)	Maximum Tune-up Power	Single Carrier Tx Power without UL-CA Active (dBm)	Tx Power with UL-CA Active (dBm)
																		Total
Intra Band Contiguous	7C_Ant 1	7	20	QPSK20M	1	0	20850	2510	7	20	QPSK20M	1	99	21048	2529.8	23.8	22.84	13.61
					1	99						23.8	22.76			22.26		
		7	20	QPSK20M	1	0	21001	2525.1	7	20	QPSK20M	1	99	21199	2544.9	23.8	22.95	13.65
					1	99						23.8	22.87			22.45		
		7	20	QPSK20M	1	0	21152	2540.2	7	20	QPSK20M	1	99	21350	2560	23.8	22.98	13.69
					1	99						23.8	22.9			22.71		
	7C_Ant 9	7	20	QPSK20M	1	0	20850	2510	7	20	QPSK20M	1	99	21048	2529.8	23.8	22.84	13.52
					1	99						23.8	22.76			22.14		
		7	20	QPSK20M	1	0	21001	2525.1	7	20	QPSK20M	1	99	21199	2544.9	23.8	22.95	13.46
					1	99						23.8	22.87			22.36		
		7	20	QPSK20M	1	0	21152	2540.2	7	20	QPSK20M	1	99	21350	2560	23.8	22.98	13.47
					1	99						23.8	22.9			22.56		
	48C_Ant 11	48	20	QPSK20M	1	0	55340	3560	48	20	QPSK20M	1	99	55538	3579.8	24.0	23.82	14.39
					1	99						24.0	23.62			23.37		
		48	20	QPSK20M	1	0	55891	3615.1	48	20	QPSK20M	1	99	56089	3634.9	24.0	23.86	14.56
					1	99						24.0	23.66			23.53		
		48	20	QPSK20M	1	0	56442	3670.2	48	20	QPSK20M	1	99	56640	3690	24.0	23.71	14.23
					1	99						24.0	23.51			23.12		
	66B_Ant 9	66	10	QPSK20M	1	0	132022	1715	66	10	QPSK20M	1	49	132121	1724.9	22.5	22.25	12.98
					1	49						22.5	22.12			21.77		
		66	10	QPSK20M	1	0	132373	1750.1	66	10	QPSK20M	1	49	132472	1760	22.5	22.28	12.95
					1	49						22.5	22.15			22.12		
		66	10	QPSK20M	1	0	132523	1765.1	66	10	QPSK20M	1	49	132622	1775	22.5	22.37	12.99
					1	49						22.5	22.15			21.63		
66C_Ant 9	66	20	QPSK20M	1	0	132072	1720	66	20	QPSK20M	1	99	132270	1739.8	22.5	22.39	13.25	
				1	99						22.5	22.19			21.95			
	66	20	QPSK20M	1	0	132323	1745.1	66	20	QPSK20M	1	99	132521	1764.9	22.5	22.43	13.31	
				1	99						22.5	22.23			21.98			
	66	20	QPSK20M	1	0	132374	1750.2	66	20	QPSK20M	1	99	132572	1770	22.5	22.46	13.25	
				1	99						22.5	22.26			22.12			

Phablet Uplink Carrier Aggregation Scenarios Conducted Power (P-Sensor On)

Configure	Combination	PCC							SCC							Measurement Power		
		Band	BW (MHz)	Modulation	RB Size	RB Offset	UL Channel	UL Frequency (MHz)	Band	BW (MHz)	Modulation	RB Size	RB Offset	UL Channel	UL Frequency (MHz)	Maximum Tune-up Power	Single Carrier Tx Power without UL-CA Active (dBm)	Tx Power with UL-CA Active (dBm)
																		Total
Intra Band Contiguous	7C_Ant 9	7	20	QPSK20M	1	0	20850	2510	7	20	QPSK20M	1	99	21048	2529.8	21.0	20.77	11.33
					1	99						21.0	20.65			19.98		
		7	20	QPSK20M	1	0	21001	2525.1	7	20	QPSK20M	1	99	21199	2544.9	21.0	20.83	11.13
					1	99						21.0	20.71			20.11		
		7	20	QPSK20M	1	0	21152	2540.2	7	20	QPSK20M	1	99	21350	2560	21.0	20.92	11.32
					1	99						21.0	20.8			20.24		