APPENDIX G: LTE DOWNLINK CA RF CONDUCTED POWERS

SAR test exclusion for LTE downlink Carrier Aggregation is determined by power measurements according to the number of component carriers (CCs) supported by the product implementation. Per April 2018 TCBC Workshop Notes, the following test reduction methodology was applied to determine the combinations required for conducted power measurements.

LTE DLCA Test Reduction Methodology:

- The supported combinations were arranged by the number of component carriers in columns.
- Any limitations on the PCC or SCC for each combination were identified alongside the combination (e.g. CA_2A-2A-4A-12A, but B12 can only be configured as a SCC).
- Power measurements were performed for "supersets" (LTE CA combinations with multiple components carriers) and any "subsets" (LTE CA combinations with fewer component carriers) that were not completely covered by the supersets.
- Only subsets that have the exact same components as a superset were excluded for measurement.
- When there were certain restrictions on component carriers that existed in the superset that were not applied for the subset, the subset configuration was additionally evaluated.
- Both inter-band and intra-band downlink carrier aggregation scenarios were considered.
- Downlink CA combinations for SISO and 4x4 Downlink MIMO operations were measured independently, per May 2017 TCBC Workshop notes.

Table G-1 – Example of Exclusion Table for SISO Configurations

Index	2CC	Supported Channel Bandwidth [MHz]		Restriction	Completely Covered by Measurement Superset
		CC1	CC2		
2CC #1	CA_2C	5, 10, 15, 20	5, 10, 15, 20		3CC #4
2CC #2	CA_2A-5A	5, 10, 15, 20	5, 10		4CC #1
2CC #3	CA_2A-12A	5, 10, 15, 20	5, 10		3CC #3
2CC #4	CA_2A-13A	5, 10, 15, 20	10		3CC #9
2CC #5	CA_2A-17A	5, 10	5, 10		No
2CC #6	CA_2A-30A	5, 10, 15, 20	5, 10		3CC #14
2CC #8	CA_2A-66A (2)	5, 10, 15, 20	5, 10, 15, 20		3CC #1
2CC #9	CA_2A-71A	5, 10, 15, 20	5, 10, 15, 20		3CC #10
2CC #10	CA_4A-4A	5, 10, 15, 20	5, 10, 15, 20		3CC #2
2CC #11	CA_4A-5A (1)	5, 10, 15, 20	5, 10		4CC #1
2CC #12	CA_4A-12A (4)	5, 10, 15, 20	5, 10		3CC #8
2CC #13	CA_4A-13A	5, 10, 15, 20	10		3CC #7
2CC #14	CA_4A-17A	5, 10	5, 10	B17 SCC Only	No
2CC #15	CA_5B	5, 10	5, 10		3CC #1
2CC #16	CA_5A-20A	5, 10	5, 10, 15, 20		No
2CC #17	CA_2C	15, 20	15, 20		No
2CC #18	CA_7A-7A (1)	5, 10, 15, 20	5, 10, 15, 20		No
2CC #19	CA_7A-12A	5, 10, 15, 20	5, 10		3CC #12
2CC #20	CA_12B	5	5, 10		3CC #13
2CC #21	CA_12A-25A	5, 10	5, 10, 15, 20		No
2CC #22	CA_13A-30A	5, 10	5, 10		3CC #16
2CC #23	CA_41A-41A (1)	5, 10, 15, 20	5, 10, 15, 20		No

Index	3CC	Supported Channel Bandwidth [MHz]			Restriction	Completely Covered by Measurement Superset
		CC1	CC2	CC3		
3CC #1	CA_2A-2A-4A	5, 10, 15, 20	5, 10, 15, 20	5, 10, 15, 20		4CC #1
3CC #2	CA_2A-2A-5A	5, 10, 15, 20	5, 10, 15, 20	5, 10		4CC #1
3CC #3	CA_2A-2A-12A	5, 10, 15, 20	5, 10, 15, 20	5, 10		No
3CC #4	CA_2C-66A	5, 10, 15, 20	5, 10, 15, 20	5, 10, 15, 20		No
3CC #5	CA_2A-2A-71A	5, 10, 15, 20	5, 10, 15, 20	5, 10, 15, 20		No
3CC #6	CA_2A-4A-4A	5, 10, 15, 20	5, 10, 15, 20	5, 10, 15, 20		4CC #1
3CC #7	CA_2A-4A-5A	5, 10, 15, 20	5, 10, 15, 20	5, 10		4CC #1
3CC #8	CA_2A-4A-12A	5, 10, 15, 20	5, 10, 15, 20	5, 10		No
3CC #9	CA_2A-4A-13A	5, 10, 15, 20	5, 10, 15, 20	10		No
3CC #10	CA_2A-4A-71A	5, 10, 15, 20	5, 10, 15, 20	5, 10, 15, 20		No
3CC #11	CA_2A-5B	5, 10, 15, 20	5, 10	5, 10		4CC #1
3CC #12	CA_2A-7A-12A	5, 10, 15, 20	5, 10, 15, 20	5, 10		No
3CC #13	CA_2A-12B	5, 10, 15, 20	5	5, 10		No
3CC #14	CA_2A-12A-20A	5, 10, 15, 20	5, 10	5, 10		No
3CC #15	CA_4A-4A-5A	5, 10, 15, 20	5, 10, 15, 20	5, 10		No
3CC #16	CA_5B-30A	5, 10	5, 10	5, 10		3CC #1
3CC #17	CA_5B-66A	5, 10	5, 10	5, 10, 15, 20		3CC #1
3CC #18	CA_5A-30A-66A	5, 10	5, 10	5, 10, 15, 20		4CC #2
3CC #19	CA_12A-66C	5, 10	5, 10, 15, 20	5, 10, 15, 20		No
3CC #20	CA_30A-66A-66A	5, 10	5, 10, 15, 20	5, 10, 15, 20		4CC #9
3CC #21	CA_41D	10, 15, 20	10, 15, 20	10, 15, 20		No
3CC #22	CA_41A-41C	5, 10, 15, 20	5, 10, 15, 20	5, 10, 15, 20		No
3CC #23	CA_66D	5, 10, 15, 20	5, 10, 15, 20	5, 10, 15, 20		No
3CC #24	CA_66A-66C	5, 10, 15, 20	5, 10, 15, 20	5, 10, 15, 20		No

Index	4CC	Supported Channel Bandwidth [MHz]				Restriction	Completely Covered by Measurement Superset
		CC1	CC2	CC3	CC4		
4CC #1	CA_2A-2A-4A-5A	5, 10, 15, 20	5, 10, 15, 20	5, 10, 15, 20	5, 10		No
4CC #2	CA_2A-2A-4A-12A	5, 10, 15, 20	5, 10, 15, 20	5, 10, 15, 20	5, 10	B12 SCC Only	No
4CC #3	CA_2A-2A-5A-30A	5, 10, 15, 20	5, 10, 15, 20	5, 10	5, 10		No
4CC #4	CA_2A-2A-5A-66A	5, 10, 15, 20	5, 10, 15, 20	5, 10	5, 10, 15, 20		No
4CC #5	CA_2A-5B-30A	5, 10, 15, 20	5, 10	5, 10	5, 10		4CC #1
4CC #6	CA_2A-5B-66A	5, 10, 15, 20	5, 10	5, 10	5, 10, 15, 20		4CC #1
4CC #7	CA_5B-30A-66A	5, 10	5, 10	5, 10	5, 10		3CC #1
4CC #8	CA_5B-66A-66A	5, 10	5, 10	5, 10, 15, 20	5, 10, 15, 20		3CC #2
4CC #9	CA_5A-30A-66A-66A	5, 10	5, 10	5, 10, 15, 20	5, 10, 15, 20		No
4CC #10	CA_41C	15, 20	15, 20	15, 20	20		No

Index	5CC	Supported Channel Bandwidth [MHz]					Restriction	Completely Covered by Measurement Superset
		CC1	CC2	CC3	CC4	CC5		
5CC #1	CA_2A-5B-30A-66A	5, 10, 15, 20	5, 10	5, 10	5, 10	5, 10, 15, 20		No
5CC #2	CA_2A-5B-66A-66A	5, 10, 15, 20	5, 10	5, 10	5, 10, 15, 20	5, 10, 15, 20		No

Table G-2 – Example of Exclusion Table for 4x4 Downlink MIMO Configurations

Index	2CC	Supported Channel Bandwidth [MHz]		Restriction	Completely Covered by Measurement Superset
		CC1	CC2		
2CC #M1	CA_[2C]	5, 10, 15, 20	5, 10, 15, 20		3CC #M6
2CC #M2	CA_[2A]-2A	5, 10, 15, 20	5, 10, 15, 20		3CC #M1
2CC #M3	CA_[2A]-[2A]	5, 10, 15, 20	5, 10, 15, 20		No
2CC #M4	CA_[2A]-4A (2)	5, 10, 15, 20	5, 10, 15, 20		3CC #M1
2CC #M5	CA_[2A]-[4A] (2)	5, 10, 15, 20	5, 10, 15, 20		No
2CC #M6	CA_[2A]-5A	5, 10, 15, 20	5, 10		4CC #M3
2CC #M7	CA_[2A]-12A (1)	5, 10, 15, 20	3, 5, 10		No
2CC #M8	CA_[2A]-13A	5, 10, 15, 20	10		3CC #M4
2CC #M9	CA_[2A]-17A	5, 10	5, 10		No
2CC #M10	CA_[2A]-29A (2)	5, 10, 15, 20	5, 10	B29 SCC Only	3CC #M12
2CC #M11	CA_[2A]-30A	5, 10, 15, 20	5, 10		3CC #M5
2CC #M12	CA_[2A]-66A (2)	5, 10, 15, 20	5, 10, 15, 20		4CC #M1
2CC #M13	CA_2A-[66A] (2)	5, 10, 15, 20	5, 10, 15, 20		4CC #M2
2CC #M14	CA_[2A]-[66A] (2)	5, 10, 15, 20	5, 10, 15, 20		No
2CC #M15	CA_[2A]-71A	5, 10, 15, 20	5, 10, 15, 20		3CC #M11
2CC #M16	CA_5A-[66A]	5, 10	5, 10, 15, 20		3CC #M16
2CC #M17	CA_12A-[66A] (4)	5, 10	5, 10, 15, 20		3CC #M17
2CC #M18	CA_13A-[66A]	5, 10	5, 10, 15, 20		3CC #M19
2CC #M19	CA_30A-[66A]	5, 10	5, 10, 15, 20		3CC #M20
2CC #M20	CA_[66B]	5, 10, 15	5, 10, 15		4CC #M4
2CC #M21	CA_[66C]	5, 10, 15, 20	5, 10, 15, 20		4CC #M6
2CC #M22	CA_[66A]-66A	5, 10, 15, 20	5, 10, 15, 20		3CC #M28
2CC #M23	CA_[66A]-[66A]	5, 10, 15, 20	5, 10, 15, 20		No

Index	3CC	Supported Channel Bandwidth [MHz]			Restriction	Completely Covered by Measurement Superset
		CC1	CC2	CC3		
3CC #M1	CA_[2A]-2A-4A	5, 10, 15, 20	5, 10, 15, 20	5, 10, 15, 20		No
3CC #M2	CA_[2A]-2A-5A	5, 10, 15, 20	5, 10, 15, 20	5, 10		No
3CC #M3	CA_[2A]-2A-12A	5, 10, 15, 20	5, 10, 15, 20	5, 10		No
3CC #M4	CA_[2A]-2A-13A	5, 10, 15, 20	5, 10, 15, 20	10		No
3CC #M5	CA_[2A]-2A-30A	5, 10, 15, 20	5, 10, 15, 20	5, 10		No
3CC #M6	CA_[2C]-66A	5, 10, 15, 20	5, 10, 15, 20	5, 10, 15, 20		No
3CC #M7	CA_2C-[66A]	5, 10, 15, 20	5, 10, 15, 20	5, 10, 15, 20		No
3CC #M8	CA_[2C]-[66A]	5, 10, 15, 20	5, 10, 15, 20	5, 10, 15, 20		No
3CC #M9	CA_[2A]-2A-66A	5, 10, 15, 20	5, 10, 15, 20	5, 10, 15, 20		No
3CC #M10	CA_2A-2A-[66A]	5, 10, 15, 20	5, 10, 15, 20	5, 10, 15, 20		No
3CC #M11	CA_[2A]-2A-71A	5, 10, 15, 20	5, 10, 15, 20	5, 10, 15, 20		No
3CC #M12	CA_[2A]-4A-29A	5, 10, 15, 20	5, 10, 15, 20	5, 10	B29 SCC Only	No
3CC #M13	CA_[2A]-4A-71A	5, 10, 15, 20	5, 10, 15, 20	5, 10, 15, 20		No
3CC #M14	CA_[2A]-5B	5, 10, 15, 20	5, 10	5, 10		4CC #M1
3CC #M15	CA_[2A]-5A-66A	5, 10, 15, 20	5, 10	5, 10, 15, 20		No
3CC #M16	CA_2A-5A-[66A]	5, 10, 15, 20	5, 10	5, 10, 15, 20		No
3CC #M17	CA_2A-12A-[66A]	5, 10, 15, 20	5, 10	5, 10, 15, 20		No
3CC #M18	CA_[2A]-13A-66A	5, 10, 15, 20	5, 10	5, 10, 15, 20		No
3CC #M19	CA_2A-13A-[66A]	5, 10, 15, 20	5, 10	5, 10, 15, 20		No
3CC #M20	CA_2A-30A-[66A]	5, 10, 15, 20	5, 10	5, 10, 15, 20		No
3CC #M21	CA_[2A]-66B	5, 10, 15, 20	5, 10, 15	5, 10, 15		4CC #M3
3CC #M22	CA_2A-[66B]	5, 10, 15, 20	5, 10, 15	5, 10, 15		4CC #M4
3CC #M23	CA_[2A]-[66B]	5, 10, 15, 20	5, 10, 15	5, 10, 15		No
3CC #M24	CA_[2A]-66C	5, 10, 15, 20	5, 10, 15, 20	5, 10, 15, 20		4CC #M5
3CC #M25	CA_2A-[66C]	5, 10, 15, 20	5, 10, 15, 20	5, 10, 15, 20		4CC #M6
3CC #M26	CA_[2A]-[66C]	5, 10, 15, 20	5, 10, 15, 20	5, 10, 15, 20		No
3CC #M27	CA_[2A]-66A-66A	5, 10, 15, 20	5, 10, 15, 20	5, 10, 15, 20		No
3CC #M28	CA_2A-[66A]-66A	5, 10, 15, 20	5, 10, 15, 20	5, 10, 15, 20		No
3CC #M29	CA_[2A]-66A-71A	5, 10, 15, 20	5, 10, 15, 20	5, 10, 15, 20		No

Index	4CC	Supported Channel Bandwidth [MHz]				Restriction	Completely Covered by Measurement Superset
		CC1	CC2	CC3	CC4		
4CC #M1	CA_[2A]-5B-66A	5, 10, 15, 20	5, 10	5, 10	5, 10, 15, 20		No
4CC #M2	CA_2A-5B-[66A]	5, 10, 15, 20	5, 10	5, 10	5, 10, 15, 20		No
4CC #M3	CA_[2A]-5A-66B	5, 10, 15, 20	5, 10	5, 10, 15	5, 10, 15		No
4CC #M4	CA_2A-5A-[66B]	5, 10, 15, 20	5, 10	5, 10, 15	5, 10, 15		No
4CC #M5	CA_[2A]-5A-66C	5, 10, 15, 20	5, 10	5, 10, 15, 20	5, 10, 15, 20		No
4CC #M6	CA_2A-5A-[66C]	5, 10, 15, 20	5, 10	5, 10, 15, 20	5, 10, 15, 20		No

Note: [CC] indicates component carrier with 4x4 DL MIMO antenna configuration

G.1 LTE Downlink Only Carrier Aggregation Test Selection and Setup

SAR test exclusion for LTE downlink Carrier Aggregation is determined by power measurements according to the number component carriers (CCs) supported by the product implementation. For those configurations required by April 2018 TCBC Workshop Notes, conducted power measurements with LTE Carrier Aggregation (CA) (downlink only) active are made in accordance to KDB Publication 941225 D05Av01r02. The RRC connection is only handled by one cell, the primary component carrier (PCC) for downlink and uplink communications. After making a data connection to the PCC, the UE device adds secondary component carrier(s) (SCC) on the downlink only. All uplink communications and acknowledgements remain identical to specifications when downlink carrier aggregation is inactive on the PCC. Additional conducted output powers are measured with the downlink carrier aggregation active for the configuration with highest measured maximum conducted power with downlink carrier aggregation inactive measured among the channel bandwidth, modulation, and RB combinations in each frequency band.

Per FCC KDB Publication 941225 D05Av01r02, no SAR measurements are required for carrier aggregation configurations when the maximum average output power with downlink only carrier aggregation active is not more than 0.25 dB higher than the average output power with downlink only carrier aggregation inactive. All bands required for SAR testing per FCC KDB procedures were considered. Based on the measured maximum powers below, no additional SAR tests were required for DLCA SAR configurations.

General PCC and SCC configuration selection procedure

- PCC uplink channel, channel bandwidth, modulation and RB configurations were selected based on section C)3)b)ii) of KDB 941225 D05 V01r02. All LTE bandwidth conducted powers needed for PCC uplink configuration selection can be found in Section 8.2 and appendix J. The downlink PCC channel was paired with the selected PCC uplink channel according to normal configurations without carrier aggregation.
- To maximize aggregated bandwidth, highest channel bandwidth available for that CA combination was selected for SCC. For inter-band CA, the SCC downlink channels were selected near the middle of their transmission bands. For contiguous intra-band CA, the downlink channel spacing between the component carriers was set to multiple of 300 kHz less than the nominal channel spacing defined in section 5.4.1A of 3GPP TS 36.521. For non-contiguous intra-band CA, the downlink channel spacing between the component carriers was set to be larger than the nominal channel spacing and provided maximum separation between the component carriers.
- All selected PCC and SCC(s) remained fully within the uplink/downlink transmission band of the respective component carrier.

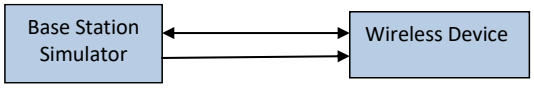

Figure G-1
DL CA Power Measurement Setup

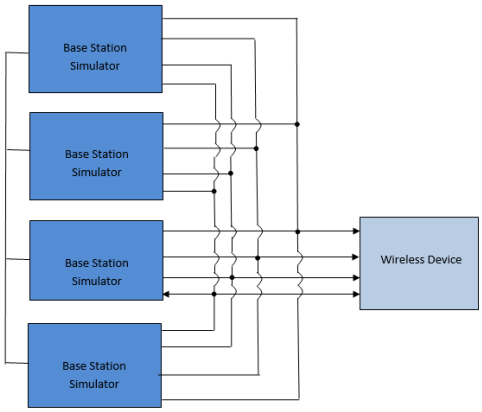

Figure G-2
DL CA with DL 4x4 MIMO Power Measurement Setup

G.2 Downlink Carrier Aggregation RF Conducted Powers

G.2.1 LTE Band 71 as PCC

Table G-3
Maximum Output Powers

	PCC									SCC 1				SCC 2				SCC 3				Power	
Combination	PCC Band	PCC BW [MHz]	PCC (UL) Ch.	PCC (UL) Freq. [MHz]	Mod.	PCC UL# RB	PCC UL RB Offset	PCC (DL) Channel	PCC (DL) Freq. [MHz]	SCC Band	SCC BW [MHz]	SCC (DL) Channel	SCC (DL) Freq. [MHz]	SCC Band	SCC BW [MHz]	SCC (DL) Channel	SCC (DL) Freq. [MHz]	SCC Band	SCC BW [MHz]	SCC (DL) Channel	SCC (DL) Freq. [MHz]	LTE Tx.Power with DL CA Enabled (dBm)	LTE Single Carrier Tx Power (dBm)
CA_2A-4A-71A	LTE B71	10	133172	668	16QAM	1	25	68636	622	LTE B2	20	900	1960	LTE B4	20	2175	2132.5	-	-	-	-	19.94	20.44
CA_4A-4A-71A	LTE B71	10	133172	668	16QAM	1	25	68636	622	LTE B4	20	2175	2132.5	LTE B4	10	2350	2150	-	-	-	-	19.97	20.44
CA_2A-66A-66A-71A	LTE B71	10	133172	668	16QAM	1	25	68636	622	LTE B2	20	900	1960	LTE B66	20	66786	2145	LTE B66	20	67236	2190	19.99	20.44
CA_2A-66C-71A	LTE B71	10	133172	668	16QAM	1	25	68636	622	LTE B2	20	900	1960	LTE B66	20	66786	2145	LTE B66	20	66984	2164.8	19.98	20.44

G.2.2 LTE Band 12 as PCC

Table G-4
Maximum Output Powers

	PCC									SCC 1				SCC 2				SCC 3				Power	
Combination	PCC Band	PCC BW [MHz]	PCC (UL) Ch.	PCC (UL) Freq. [MHz]	Mod.	PCC UL# RB	PCC UL RB Offset	PCC (DL) Channel	PCC (DL) Freq. [MHz]	SCC Band	SCC BW [MHz]	SCC (DL) Channel	SCC (DL) Freq. [MHz]	SCC Band	SCC BW [MHz]	SCC (DL) Channel	SCC (DL) Freq. [MHz]	SCC Band	SCC BW [MHz]	SCC (DL) Channel	SCC (DL) Freq. [MHz]	LTE Tx.Power with DL CA Enabled (dBm)	LTE Single Carrier Tx Power (dBm)
CA_2A-12A (1)	LTE B12	3	23025	700.5	16QAM	1	7	5025	730.5	LTE B2	20	900	1960	-	-	-	-	-	-	-	-	20.13	20.03
CA_4A-12A (1)	LTE B12	5	23035	701.5	16QAM	1	12	5035	731.5	LTE B4	20	2175	2132.5	-	-	-	-	-	-	-	-	20.10	19.96
CA_4A-12A (2)	LTE B12	3	23025	700.5	16QAM	1	7	5025	730.5	LTE B4	20	2175	2132.5	-	-	-	-	-	-	-	-	19.74	20.03
CA_12A-25A	LTE B12	5	23035	701.5	16QAM	1	12	5035	731.5	LTE B25	20	8365	1962.5	-	-	-	-	-	-	-	-	20.16	19.96
CA_12A-48A	LTE B12	5	23035	701.5	16QAM	1	12	5035	731.5	LTE B48	20	55990	3625	-	-	-	-	-	-	-	-	19.96	19.96
CA_12A-66A (1)	LTE B12	5	23035	701.5	16QAM	1	12	5035	731.5	LTE B66	20	66786	2145	-	-	-	-	-	-	-	-	20.17	19.96
CA_12A-66A (2)	LTE B12	3	23025	700.5	16QAM	1	7	5025	730.5	LTE B66	20	66786	2145	-	-	-	-	-	-	-	-	20.18	20.03
CA_2C-12A	LTE B12	5	23035	701.5	16QAM	1	12	5035	731.5	LTE B2	20	900	1960	LTE B2	20	702	1940.2	-	-	-	-	19.49	19.96
CA_12A-48C	LTE B12	5	23035	701.5	16QAM	1	12	5035	731.5	LTE B48	20	55990	3625	LTE B48	20	56188	3644.8	-	-	-	-	19.97	19.96
CA_2A-2A-4A-12A	LTE B12	5	23035	701.5	16QAM	1	12	5035	731.5	LTE B2	20	900	1960	LTE B2	20	700	1940	LTE B4	20	2175	2132.5	19.29	19.96
CA_2A-2A-12B	LTE B12	5	23035	701.5	16QAM	1	12	5035	731.5	LTE B12	10	5107	738.7	LTE B2	20	900	1960	LTE B2	20	700	1940	19.26	19.96
CA_2A-4A-4A-12A	LTE B12	5	23035	701.5	16QAM	1	12	5035	731.5	LTE B2	20	900	1960	LTE B4	20	2175	2132.5	LTE B4	10	2350	2150	19.25	19.96
CA_2A-4A-7A-12A	LTE B12	5	23035	701.5	16QAM	1	12	5035	731.5	LTE B2	20	900	1960	LTE B4	20	2175	2132.5	LTE B7	20	3100	2655	19.27	19.96
CA_2A-4A-12B	LTE B12	5	23035	701.5	16QAM	1	12	5035	731.5	LTE B12	10	5107	738.7	LTE B2	20	900	1960	LTE B4	20	2175	2132.5	19.23	19.96
CA_2A-12A-66C	LTE B12	5	23035	701.5	16QAM	1	12	5035	731.5	LTE B2	20	900	1960	LTE B66	20	66786	2145	LTE B66	20	66984	2164.8	19.24	19.96
CA_4A-4A-12B	LTE B12	5	23035	701.5	16QAM	1	12	5035	731.5	LTE B12	10	5107	738.7	LTE B4	20	2175	2132.5	LTE B4	10	2350	2150	19.21	19.96
CA_2A-2A-7A-12A-66A	LTE B12	5	23035	701.5	16QAM	1	12	5035	731.5	LTE B2	20	900	1960	LTE B2	20	700	1940	LTE B7	20	3100	2655	19.47	19.96
CA_2A-2A-12A-30A-66A	LTE B12	5	23035	701.5	16QAM	1	12	5035	731.5	LTE B2	20	900	1960	LTE B2	20	700	1940	LTE B30	10	9820	2355	19.47	19.96
CA_2A-2A-12A-66A-66A	LTE B12	5	23035	701.5	16QAM	1	12	5035	731.5	LTE B2	20	900	1960	LTE B2	20	700	1940	LTE B66	20	66786	2145	19.43	19.96
CA_2A-12A-30A-66A-66A	LTE B12	5	23035	701.5	16QAM	1	12	5035	731.5	LTE B2	20	900	1960	LTE B30	10	9820	2355	LTE B66	20	66786	2145	19.47	19.96

G.2.3 LTE Band 13 as PCC

Table G-5
Maximum Output Powers

Combination	PCC									SCC 1				SCC 2				SCC 3				Power	
	PCC Band	PCC BW [MHz]	PCC (UL) Ch.	PCC (UL) Freq. [MHz]	Mod.	PCC UL# RB	PCC UL RB Offset	PCC (DL) Channel	PCC (DL) Freq. [MHz]	SCC Band	SCC BW [MHz]	SCC (DL) Channel	SCC (DL) Freq. [MHz]	SCC Band	SCC BW [MHz]	SCC (DL) Channel	SCC (DL) Freq. [MHz]	SCC Band	SCC BW [MHz]	SCC (DL) Channel	SCC (DL) Freq. [MHz]	LTE Tx.Power with DL CA Enabled (dBm)	LTE Single Carrier Tx Power (dBm)
CA_2A-4A-13A	LTE B13	10	23230	782	16QAM	1	49	5230	751	LTE B2	20	900	1960	LTE B4	20	2175	2132.5	-	-	-	-	19.93	20.48
CA_2A-13A-48A	LTE B13	5	23230	782	64QAM	1	24	5230	751	LTE B2	20	900	1960	LTE B48	20	55990	3625	-	-	-	-	20.81	20.67
CA_4A-4A-13A	LTE B13	10	23230	782	16QAM	1	49	5230	751	LTE B4	20	2175	2132.5	LTE B4	10	2350	2150	-	-	-	-	20.07	20.48
CA_13A-48A-66A	LTE B13	5	23230	782	64QAM	1	24	5230	751	LTE B48	20	55990	3625	LTE B66	20	66786	2145	-	-	-	-	20.86	20.67
CA_2A-7C-13A	LTE B13	5	23230	782	64QAM	1	24	5230	751	LTE B2	20	900	1960	LTE B7	20	3100	2655	LTE B7	20	2902	2635.2	20.19	20.67
CA_2A-13A-48C	LTE B13	5	23230	782	64QAM	1	24	5230	751	LTE B2	20	900	1960	LTE B48	20	55990	3625	LTE B48	20	56188	3644.8	20.10	20.67
CA_2A-13A-66B	LTE B13	5	23230	782	64QAM	1	24	5230	751	LTE B2	20	900	1960	LTE B66	15	66786	2145	LTE B66	5	66879	2154.3	20.21	20.67
CA_2A-13A-66C	LTE B13	5	23230	782	64QAM	1	24	5230	751	LTE B2	20	900	1960	LTE B66	20	66786	2145	LTE B66	20	66984	2164.8	20.22	20.67
CA_13A-48C-66A	LTE B13	5	23230	782	64QAM	1	24	5230	751	LTE B48	20	55990	3625	LTE B48	20	56188	3644.8	LTE B66	20	66786	2145	20.08	20.67
CA_13A-66A-66B	LTE B13	5	23230	782	64QAM	1	24	5230	751	LTE B66	20	66786	2145	LTE B66	5	67168	2183.2	LTE B66	15	67261	2192.5	20.24	20.67
CA_13A-66A-66C	LTE B13	5	23230	782	64QAM	1	24	5230	751	LTE B66	20	66786	2145	LTE B66	20	67038	2170.2	LTE B66	20	67236	2190	20.23	20.67
CA_2A-2A-13A-66A-66A	LTE B13	5	23230	782	64QAM	1	24	5230	751	LTE B2	20	900	1960	LTE B2	20	700	1940	LTE B66	20	66786	2145	20.50	20.67
CA_2A-7A-7A-13A-66A	LTE B13	5	23230	782	64QAM	1	24	5230	751	LTE B2	20	900	1960	LTE B7	20	2850	2630	LTE B7	20	3100	2655	20.45	20.67
CA_13A-48D-66A	LTE B13	5	23230	782	64QAM	1	24	5230	751	LTE B48	20	55990	3625	LTE B48	20	56188	3644.8	LTE B48	20	56386	3664.6	20.62	20.67
CA_13A-48E	LTE B13	5	23230	782	64QAM	1	24	5230	751	LTE B48	20	55990	3625	LTE B48	20	56188	3644.8	LTE B48	20	56386	3664.6	20.60	20.67

G.2.4 LTE Band 14 as PCC

Table G-6
Maximum Output Powers

Combination	PCC									SCC 1				SCC 2				SCC 3				Power	
	PCC Band	PCC BW [MHz]	PCC (UL) Ch.	PCC (UL) Freq. [MHz]	Mod.	PCC UL# RB	PCC UL RB Offset	PCC (DL) Channel	PCC (DL) Freq. [MHz]	SCC Band	SCC BW [MHz]	SCC (DL) Channel	SCC (DL) Freq. [MHz]	SCC Band	SCC BW [MHz]	SCC (DL) Channel	SCC (DL) Freq. [MHz]	SCC Band	SCC BW [MHz]	SCC (DL) Channel	SCC (DL) Freq. [MHz]	LTE Tx.Power with DL CA Enabled (dBm)	LTE Single Carrier Tx Power (dBm)
CA_2A-2A-14A-30A-66A	LTE B14	5	23330	793	16QAM	1	12	5330	763	LTE B2	20	900	1960	LTE B2	20	700	1940	LTE B30	10	9820	2355	19.17	19.70
CA_2A-2A-14A-66A-66A	LTE B14	5	23330	793	16QAM	1	12	5330	763	LTE B2	20	900	1960	LTE B2	20	700	1940	LTE B66	20	66786	2145	19.23	19.70
CA_2A-14A-30A-66A-66A	LTE B14	5	23330	793	16QAM	1	12	5330	763	LTE B2	20	900	1960	LTE B30	10	9820	2355	LTE B66	20	66786	2145	19.22	19.70

G.2.5 LTE Band 5 as PCC

Table G-7
Maximum Output Powers

Combination	PCC									SCC 1				SCC 2				SCC 3				Power	
	PCC Band	PCC BW [MHz]	PCC (UL) Ch.	PCC (UL) Freq. [MHz]	Mod.	PCC UL# RB	PCC UL RB Offset	PCC (DL) Channel	PCC (DL) Freq. [MHz]	SCC Band	SCC BW [MHz]	SCC (DL) Channel	SCC (DL) Freq. [MHz]	SCC Band	SCC BW [MHz]	SCC (DL) Channel	SCC (DL) Freq. [MHz]	SCC Band	SCC BW [MHz]	SCC (DL) Channel	SCC (DL) Freq. [MHz]	LTE Tx.Power with DL CA Enabled (dBm)	LTE Single Carrier Tx Power (dBm)
CA_5A-7A	LTE B5	5	20525	836.5	16QAM	1	12	2525	881.5	LTE B7	20	3100	2655	-	-	-	-	-	-	-	-	19.31	19.09
CA_5A-25A	LTE B5	5	20525	836.5	16QAM	1	12	2525	881.5	LTE B25	20	8365	1962.5	-	-	-	-	-	-	-	-	19.33	19.09
CA_5A-41A	LTE B5	5	20525	836.5	16QAM	1	12	2525	881.5	LTE B41	20	40620	2593	-	-	-	-	-	-	-	-	19.25	19.09
CA_5B (1)	LTE B5	5	20525	836.5	16QAM	1	12	2525	881.5	LTE B5	3	2486	877.6	-	-	-	-	-	-	-	-	19.27	19.09
CA_2C-5A	LTE B5	5	20525	836.5	16QAM	1	12	2525	881.5	LTE B2	20	900	1960	LTE B2	20	702	1940.2	-	-	-	-	18.91	19.09
CA_4A-5B	LTE B5	5	20525	836.5	16QAM	1	12	2525	881.5	LTE B5	10	2453	874.3	LTE B4	20	2175	2132.5	-	-	-	-	18.96	19.09
CA_5B-30A	LTE B5	5	20525	836.5	16QAM	1	12	2525	881.5	LTE B5	10	2453	874.3	LTE B30	10	9820	2355	-	-	-	-	18.93	19.09
CA_2A-2A-4A-5A	LTE B5	5	20525	836.5	16QAM	1	12	2525	881.5	LTE B2	20	900	1960	LTE B2	20	700	1940	LTE B4	20	2175	2132.5	18.42	19.09
CA_2A-4A-4A-5A	LTE B5	5	20525	836.5	16QAM	1	12	2525	881.5	LTE B2	20	900	1960	LTE B4	20	2175	2132.5	LTE B4	10	2350	2150	18.47	19.09
CA_2A-5A-7C	LTE B5	5	20525	836.5	16QAM	1	12	2525	881.5	LTE B2	20	900	1960	LTE B7	20	3100	2655	LTE B7	20	2902	2635.2	18.44	19.09
CA_2A-5A-48A-66A	LTE B5	5	20525	836.5	16QAM	1	12	2525	881.5	LTE B2	20	900	1960	LTE B48	20	55990	3625	LTE B66	20	66786	2145	18.69	19.09
CA_2A-5A-48C	LTE B5	5	20525	836.5	16QAM	1	12	2525	881.5	LTE B2	20	900	1960	LTE B48	20	55990	3625	LTE B48	20	56188	3644.8	19.22	19.09
CA_2A-5B-66A	LTE B5	5	20525	836.5	16QAM	1	12	2525	881.5	LTE B5	10	2453	874.3	LTE B2	20	900	1960	LTE B66	20	66786	2145	18.35	19.09
CA_5A-7A-66A-66A	LTE B5	5	20525	836.5	16QAM	1	12	2525	881.5	LTE B7	20	3100	2655	LTE B66	20	66786	2145	LTE B66	20	67236	2190	18.44	19.09
CA_5A-48C-66A	LTE B5	5	20525	836.5	16QAM	1	12	2525	881.5	LTE B48	20	55990	3625	LTE B48	20	56188	3644.8	LTE B66	20	66786	2145	19.17	19.09
CA_5A-48D	LTE B5	5	20525	836.5	16QAM	1	12	2525	881.5	LTE B48	20	55990	3625	LTE B48	20	56188	3644.8	LTE B48	20	56386	3664.6	19.12	19.09
CA_5A-66A-66B	LTE B5	5	20525	836.5	16QAM	1	12	2525	881.5	LTE B66	20	66786	2145	LTE B66	15	67261	2192.5	LTE B66	5	67168	2183.2	18.41	19.09
CA_5A-66A-66C	LTE B5	5	20525	836.5	16QAM	1	12	2525	881.5	LTE B66	20	66786	2145	LTE B66	20	67236	2190	LTE B66	20	67038	2170.2	18.45	19.09
CA_2A-2A-5A-30A-66A	LTE B5	5	20525	836.5	16QAM	1	12	2525	881.5	LTE B2	20	900	1960	LTE B2	20	700	1940	LTE B30	10	9820	2355	18.59	19.09
CA_2A-2A-5A-66A-66A	LTE B5	5	20525	836.5	16QAM	1	12	2525	881.5	LTE B2	20	900	1960	LTE B2	20	700	1940	LTE B66	20	66786	2145	18.57	19.09
CA_2A-2A-5A-66B	LTE B5	5	20525	836.5	16QAM	1	12	2525	881.5	LTE B2	20	900	1960	LTE B2	20	700	1940	LTE B66	15	66786	2145	18.55	19.09
CA_2A-2A-5A-66C	LTE B5	5	20525	836.5	16QAM	1	12	2525	881.5	LTE B2	20	900	1960	LTE B2	20	700	1940	LTE B66	20	66786	2145	18.47	19.09
CA_2A-5A-7A-7A-66A	LTE B5	5	20525	836.5	16QAM	1	12	2525	881.5	LTE B7	20	2850	2630	LTE B2	20	900	1960	LTE B7	20	3152	2660.2	18.51	19.09
CA_2A-5A-30A-66A-66A	LTE B5	5	20525	836.5	16QAM	1	12	2525	881.5	LTE B2	20	900	1960	LTE B30	10	9820	2355	LTE B66	20	66786	2145	18.55	19.09
CA_2A-5A-48A-66A-66A	LTE B5	5	20525	836.5	16QAM	1	12	2525	881.5	LTE B2	20	900	1960	LTE B48	20	55990	3625	LTE B66	20	66786	2145	18.78	19.09
CA_5A-7C-66A-66A	LTE B5	5	20525	836.5	16QAM	1	12	2525	881.5	LTE B7	20	3100	2655	LTE B7	20	2902	2635.2	LTE B66	20	66786	2145	18.71	19.09
CA_5A-48C-66A-66A	LTE B5	5	20525	836.5	16QAM	1	12	2525	881.5	LTE B48	20	55990	3625	LTE B48	20	56188	3644.8	LTE B66	20	66786	2145	18.73	19.09

G.2.6 LTE Band 26 as PCC

Table G-8
Maximum Output Powers

Combination	PCC									SCC 1				SCC 2				SCC 3				Power	
	PCC Band	PCC BW [MHz]	PCC (UL) Ch.	PCC (UL) Freq. [MHz]	Mod.	PCC UL# RB	PCC UL RB Offset	PCC (DL) Channel	PCC (DL) Freq. [MHz]	SCC Band	SCC BW [MHz]	SCC (DL) Channel	SCC (DL) Freq. [MHz]	SCC Band	SCC BW [MHz]	SCC (DL) Channel	SCC (DL) Freq. [MHz]	SCC Band	SCC BW [MHz]	SCC (DL) Channel	SCC (DL) Freq. [MHz]	LTE Tx.Power with DL CA Enabled (dBm)	LTE Single Carrier Tx Power (dBm)
CA_7A-26A	LTE B26	10	26740	819	16QAM	1	0	8740	864	LTE B7	20	3100	2655	-	-	-	-	-	-	-	-	19.60	19.35
CA_25A-26A	LTE B26	1.4	26697	814.7	16QAM	1	5	8697	859.7	LTE B25	20	8365	1962.5	-	-	-	-	-	-	-	-	18.80	19.43
CA_26A-41A	LTE B26	10	26740	819	16QAM	1	0	8740	864	LTE B41	20	40620	2593	-	-	-	-	-	-	-	-	19.40	19.35
CA_7A-7A-26A	LTE B26	10	26740	819	16QAM	1	0	8740	864	LTE B7	20	3100	2655	LTE B7	20	2850	2630	-	-	-	-	18.93	19.35
CA_25A-25A-26A	LTE B26	3	26705	815.5	16QAM	1	7	8705	860.5	LTE B25	20	8365	1962.5	LTE B25	20	8590	1985	-	-	-	-	18.95	19.32
CA_26A-41C	LTE B26	10	26740	819	16QAM	1	0	8740	864	LTE B41	20	40620	2593	LTE B41	20	40422	2573.2	-	-	-	-	19.30	19.35

G.2.7 LTE Band 66 as PCC

Table G-9
Maximum Output Powers

	PCC									SCC 1				SCC 2				SCC 3				Power	
Combination	PCC Band	PCC BW [MHz]	PCC (UL) Ch.	PCC (UL) Freq. [MHz]	Mod.	PCC UL# RB	PCC UL RB Offset	PCC (DL) Channel	PCC (DL) Freq. [MHz]	SCC Band	SCC BW [MHz]	SCC (DL) Channel	SCC (DL) Freq. [MHz]	SCC Band	SCC BW [MHz]	SCC (DL) Channel	SCC (DL) Freq. [MHz]	SCC Band	SCC BW [MHz]	SCC (DL) Channel	SCC (DL) Freq. [MHz]	LTE Tx.Power with DL CA Enabled (dBm)	LTE Single Carrier Tx Power (dBm)
CA_12A-66A (1)	LTE B66	5	131997	1712.5	64QAM	1	12	66461	2112.5	LTE B12	10	5095	737.5	-	-	-	-	-	-	-	-	17.29	17.23
CA_12A-66A (2)	LTE B66	5	131997	1712.5	64QAM	1	12	66461	2112.5	LTE B12	10	5095	737.5	-	-	-	-	-	-	-	-	17.29	17.23
CA_13A-48A-66A	LTE B66	5	131997	1712.5	64QAM	1	12	66461	2112.5	LTE B13	10	5230	751	LTE B48	20	55990	3625	-	-	-	-	17.39	17.23
CA_48A-48A-66A	LTE B66	5	131997	1712.5	64QAM	1	12	66461	2112.5	LTE B48	20	55990	3625	LTE B48	20	56640	3690	-	-	-	-	17.20	17.23
CA_2A-5A-48A-66A	LTE B66	5	131997	1712.5	64QAM	1	12	66461	2112.5	LTE B2	20	900	1960	LTE B5	10	2525	881.5	LTE B48	20	55990	3625	16.44	17.23
CA_2A-5B-66A	LTE B66	5	131997	1712.5	64QAM	1	12	66461	2112.5	LTE B2	20	900	1960	LTE B5	10	2525	881.5	LTE B5	5	2453	874.3	16.83	17.23
CA_2A-7C-66A	LTE B66	5	131997	1712.5	64QAM	1	12	66461	2112.5	LTE B2	20	900	1960	LTE B7	20	3100	2655	LTE B7	20	2902	2635.2	16.88	17.23
CA_2A-12A-66C	LTE B66	5	131997	1712.5	64QAM	1	12	66461	2112.5	LTE B66	20	66578	2124.2	LTE B2	20	900	1960	LTE B12	10	5095	737.5	16.86	17.23
CA_2A-13A-66B	LTE B66	5	131997	1712.5	64QAM	1	12	66461	2112.5	LTE B66	15	66554	2121.8	LTE B2	20	900	1960	LTE B13	10	5230	751	16.71	17.23
CA_2A-13A-66C	LTE B66	5	131997	1712.5	64QAM	1	12	66461	2112.5	LTE B66	20	66578	2124.2	LTE B2	20	900	1960	LTE B13	10	5230	751	16.71	17.23
CA_2A-66A-66A-66A	LTE B66	5	131997	1712.5	64QAM	1	12	66461	2112.5	LTE B66	20	66786	2145	LTE B66	20	67236	2190	LTE B2	20	900	1960	16.77	17.23
CA_2A-66A-66A-71A	LTE B66	5	131997	1712.5	64QAM	1	12	66461	2112.5	LTE B66	20	67236	2190	LTE B2	20	900	1960	LTE B71	20	68761	634.5	16.63	17.23
CA_2A-66A-66B	LTE B66	5	131997	1712.5	64QAM	1	12	66461	2112.5	LTE B66	15	67218	2188.2	LTE B66	5	67311	2197.5	LTE B2	20	900	1960	16.68	17.23
CA_2A-66B-66A	LTE B66	5	131997	1712.5	64QAM	1	12	66461	2112.5	LTE B66	15	66554	2121.8	LTE B66	20	67236	2190	LTE B2	20	900	1960	16.64	17.23
CA_2A-66A-66C	LTE B66	5	131997	1712.5	64QAM	1	12	66461	2112.5	LTE B66	20	67038	2170.2	LTE B66	20	67236	2190	LTE B2	20	900	1960	16.52	17.23
CA_2A-66C-66A	LTE B66	5	131997	1712.5	64QAM	1	12	66461	2112.5	LTE B66	20	66578	2124.2	LTE B66	20	67236	2190	LTE B2	20	900	1960	16.59	17.23
CA_2A-66C-71A	LTE B66	5	131997	1712.5	64QAM	1	12	66461	2112.5	LTE B66	20	66578	2124.2	LTE B2	20	900	1960	LTE B71	20	68761	634.5	16.61	17.23
CA_2C-66A-66A	LTE B66	5	131997	1712.5	64QAM	1	12	66461	2112.5	LTE B66	20	67236	2190	LTE B2	20	900	1960	LTE B2	20	702	1940.2	16.57	17.23
CA_5A-7A-66A-66A	LTE B66	5	131997	1712.5	64QAM	1	12	66461	2112.5	LTE B66	20	67236	2190	LTE B5	10	2525	881.5	LTE B7	20	3100	2655	16.60	17.23
CA_5A-48C-66A	LTE B66	5	131997	1712.5	64QAM	1	12	66461	2112.5	LTE B5	10	2525	881.5	LTE B48	20	55990	3625	LTE B48	20	56188	3644.8	16.75	17.23
CA_5A-66A-66B	LTE B66	5	131997	1712.5	64QAM	1	12	66461	2112.5	LTE B66	15	67218	2188.2	LTE B66	5	67311	2197.5	LTE B5	10	2525	881.5	16.63	17.23
CA_5A-66B-66A	LTE B66	5	131997	1712.5	64QAM	1	12	66461	2112.5	LTE B66	15	66554	2121.8	LTE B66	20	67236	2190	LTE B5	10	2525	881.5	16.74	17.23
CA_5A-66A-66C	LTE B66	5	131997	1712.5	64QAM	1	12	66461	2112.5	LTE B66	20	67038	2170.2	LTE B66	20	67236	2190	LTE B5	10	2525	881.5	16.77	17.23
CA_5A-66C-66A	LTE B66	5	131997	1712.5	64QAM	1	12	66461	2112.5	LTE B66	20	66578	2124.2	LTE B66	20	67236	2190	LTE B5	10	2525	881.5	16.70	17.23
CA_7A-7A-25A-66A	LTE B66	5	131997	1712.5	64QAM	1	12	66461	2112.5	LTE B7	20	3100	2655	LTE B7	20	2850	2630	LTE B25	20	8365	1962.5	16.76	17.23
CA_13A-48C-66A	LTE B66	5	131997	1712.5	64QAM	1	12	66461	2112.5	LTE B13	10	5230	751	LTE B48	20	55990	3625	LTE B48	20	56188	3644.8	16.79	17.23
CA_13A-66A-66B	LTE B66	5	131997	1712.5	64QAM	1	12	66461	2112.5	LTE B66	15	67218	2188.2	LTE B66	5	67311	2197.5	LTE B13	10	5230	751	16.61	17.23
CA_13A-66B-66A	LTE B66	5	131997	1712.5	64QAM	1	12	66461	2112.5	LTE B66	15	66554	2121.8	LTE B66	20	67236	2190	LTE B13	10	5230	751	16.62	17.23
CA_13A-66C-66A	LTE B66	5	131997	1712.5	64QAM	1	12	66461	2112.5	LTE B66	20	67038	2170.2	LTE B66	20	67236	2190	LTE B13	10	5230	751	16.63	17.23
CA_13A-66C-66A	LTE B66	5	131997	1712.5	64QAM	1	12	66461	2112.5	LTE B66	20	66578	2124.2	LTE B66	20	67236	2190	LTE B13	10	5230	751	16.56	17.23
CA_29A-30A-66A-66A	LTE B66	5	131997	1712.5	64QAM	1	12	66461	2112.5	LTE B66	20	67236	2190	LTE B29	10	9715	722.5	LTE B30	10	9820	2355	16.56	17.23
CA_30A-66A-66A-66A	LTE B66	5	131997	1712.5	64QAM	1	12	66461	2112.5	LTE B66	20	66786	2145	LTE B66	20	67236	2190	LTE B30	10	9820	2355	16.64	17.23
CA_48A-48C-66A	LTE B66	5	131997	1712.5	64QAM	1	12	66461	2112.5	LTE B48	20	55990	3625	LTE B48	20	55340	3560	LTE B48	20	55538	3579.8	16.63	17.23
CA_2A-2A-5A-30A-66A	LTE B66	5	131997	1712.5	64QAM	1	12	66461	2112.5	LTE B2	20	900	1960	LTE B2	20	700	1940	LTE B5	10	2525	881.5	16.61	17.23
CA_2A-2A-5A-66A-66A	LTE B66	5	131997	1712.5	64QAM	1	12	66461	2112.5	LTE B66	20	67236	2190	LTE B2	20	900	1960	LTE B2	20	700	1940	16.57	17.23
CA_2A-2A-5A-66B	LTE B66	5	131997	1712.5	64QAM	1	12	66461	2112.5	LTE B66	15	66554	2121.8	LTE B2	20	900	1960	LTE B2	20	700	1940	16.43	17.23
CA_2A-2A-5A-66C	LTE B66	5	131997	1712.5	64QAM	1	12	66461	2112.5	LTE B66	20	66578	2124.2	LTE B2	20	900	1960	LTE B2	20	700	1940	16.42	17.23
CA_2A-2A-7A-12A-66A	LTE B66	5	131997	1712.5	64QAM	1	12	66461	2112.5	LTE B2	20	900	1960	LTE B2	20	700	1940	LTE B7	20	3100	2655	16.62	17.23
CA_2A-2A-7A-66A-66A	LTE B66	5	131997	1712.5	64QAM	1	12	66461	2112.5	LTE B2	20	900	1960	LTE B2	20	700	1940	LTE B7	20	3100	2655	16.43	17.23
CA_2A-2A-7A-66A-71A	LTE B66	5	131997	1712.5	64QAM	1	12	66461	2112.5	LTE B2	20	900	1960	LTE B2	20	700	1940	LTE B7	20	3100	2655	16.66	17.23
CA_2A-2A-12A-30A-66A	LTE B66	5	131997	1712.5	64QAM	1	12	66461	2112.5	LTE B2	20	900	1960	LTE B2	20	700	1940	LTE B12	10	5095	737.5	16.60	17.23
CA_2A-2A-12A-66A-66A	LTE B66	5	131997	1712.5	64QAM	1	12	66461	2112.5	LTE B66	20	67236	2190	LTE B2	20	900	1960	LTE B2	20	700	1940	16.64	17.23
CA_2A-2A-13A-66A-66A	LTE B66	5	131997	1712.5	64QAM	1	12	66461	2112.5	LTE B66	20	67236	2190	LTE B2	20	900	1960	LTE B2	20	700	1940	16.63	17.23
CA_2A-2A-14A-30A-66A	LTE B66	5	131997	1712.5	64QAM	1	12	66461	2112.5	LTE B2	20	900	1960	LTE B2	20	700	1940	LTE B14	10	5330	763	16.66	17.23
CA_2A-2A-14A-66A-66A	LTE B66	5	131997	1712.5	64QAM	1	12	66461	2112.5	LTE B66	20	67236	2190	LTE B2	20	900	1960	LTE B2	20	700	1940	16.62	17.23
CA_2A-2A-29A-30A-66A	LTE B66	5	131997	1712.5	64QAM	1	12	66461	2112.5	LTE B2	20	900	1960	LTE B2	20	700	1940	LTE B29	10	9715	722.5	16.63	17.23
CA_2A-2A-29A-66A-66A	LTE B66	5	131997	1712.5	64QAM	1	12	66461	2112.5	LTE B2	20	900	1960	LTE B2	20	700	1940	LTE B29	10	9715	722.5	16.51	17.23
CA_2A-5A-7A-7A-66A	LTE B66	5	131997	1712.5	64QAM	1	12	66461	2112.5	LTE B2	20	900	1960	LTE B5	10	2525	881.5	LTE B7	20	3100	2655	16.49	17.23
CA_2A-5A-30A-66A-66A	LTE B66	5	131997	1712.5	64QAM	1	12	66461	2112.5	LTE B66	20	67236	2190	LTE B2	20	900	1960	LTE B5	10	2525	881.5	16.41	17.23
CA_2A-5A-48A-66A-66A	LTE B66	5	131997	1712.5	64QAM	1	12	66461	2112.5	LTE B66	20	67236	2190	LTE B2	20	900	1960	LTE B5	10	2525	881.5	16.75	17.23
CA_2A-7A-7A-13A-66A	LTE B66	5	131997	1712.5	64QAM	1	12	66461	2112.5	LTE B13	10	5230	751	LTE B2	20	900	1960	LTE B7	20	3100	2655	16.46	17.23
CA_2A-7A-7A-66A-66A	LTE B66	5	131997	1712.5	64QAM	1	12	66461	2112.5	LTE B66	20	67236	2190	LTE B2	20	900	1960	LTE B7	20	3100	2655	16.48	17.23
CA_2A-7C-66A-66A	LTE B66	5	131997	1712.5	64QAM	1	12	66461	2112.5	LTE B66	20	67236	2190	LTE B2	20	900	1960	LTE B7	20	3100	2655	16.44	17.23
CA_2A-12A-30A-66A-66A	LTE B66	5	131997	1712.5	64QAM	1	12	66461	2112.5	LTE B66	20	67236	2190	LTE B2	20	900	1960	LTE B12	10	5095	737.5	16.48	17.23
CA_2A-14A-30A-66A-66A	LTE B66	5	131997	1712.5	64QAM	1	12	66461	2112.5	LTE B66	20	67236	2190	LTE B2	20	900	1960	LTE B14	10	5330	763	16.38	17.23
CA_2A-48C-66A-66A	LTE B66	5	131997	1712.5	64QAM	1	12	66461	2112.5	LTE B66	20	67236	2190	LTE B2	20	900	1960	LTE B48	20	55990	3625	16.70	17.23
CA_2A-48D-66A	LTE B66	5	131997	1712.5	64QAM	1	12	66461	2112.5	LTE B2	20	900	1960	LTE B48	20	55990	3625	LTE B48	20	56188	3644.8	17.38	17.23
CA_5A-7C-66A-66A	LTE B66	5	131997	1712.5	64QAM	1	12	66461	2112.5	LTE B66	20	67236	2190	LTE B5	10	2525	881.5	LTE B7	20	3100	2655	16.67	17.23
CA_5A-48C-66A-66A	LTE B66	5	131997	1712.5	64QAM	1	12	66461	2112.5	LTE B66	20	67236	2190	LTE B5	10	2525	881.5	LTE B48	20	55990	3625	16.62	17.23
CA_13A-48D-66A	LTE B66	5	131997	1712.5	64QAM	1	12	66461	2112.5	LTE B13	10	5230	751	LTE B48	20	55990	3625	LTE B48	20	56188	3644.8	17.35	17.23
CA_2A-48E-66A	LTE B66	5	131997	1712.5	64QAM	1	12	66461	2112.5	LTE B2	20	900	1960	LTE B48	20	55990	3625	LTE B48	20	56188	3644.8	17.26	17.23

G.2.8 LTE Band 25 as PCC

Table G-10
Maximum Output Powers

	PCC									SCC 1				SCC 2				SCC 3				Power	
Combination	PCC Band	PCC BW [MHz]	PCC (UL) Ch.	PCC (UL) Freq. [MHz]	Mod.	PCC UL# RB	PCC UL RB Offset	PCC (DL) Channel	PCC (DL) Freq. [MHz]	SCC Band	SCC BW [MHz]	SCC (DL) Channel	SCC (DL) Freq. [MHz]	SCC Band	SCC BW [MHz]	SCC (DL) Channel	SCC (DL) Freq. [MHz]	SCC Band	SCC BW [MHz]	SCC (DL) Channel	SCC (DL) Freq. [MHz]	LTE Tx.Power with DL CA Enabled (dBm)	LTE Single Carrier Tx Power (dBm)
CA_5A-25A	LTE B25	20	26365	1882.5	64QAM	1	50	8365	1962.5	LTE B5	10	2525	881.5	-	-	-	-	-	-	-	-	15.12	14.94
CA_12A-25A	LTE B25	20	26365	1882.5	64QAM	1	50	8365	1962.5	LTE B12	10	5095	737.5	-	-	-	-	-	-	-	-	14.85	14.94
CA_25A-26A	LTE B25	20	26365	1882.5	64QAM	1	50	8365	1962.5	LTE B26	15	8865	876.5	-	-	-	-	-	-	-	-	15.17	14.94
CA_25A-25A-26A	LTE B25	20	26365	1882.5	64QAM	1	50	8365	1962.5	LTE B25	20	8140	1940	LTE B26	5	8865	876.5	-	-	-	-	14.40	14.94
CA_25A-25A-41A	LTE B25	20	26365	1882.5	64QAM	1	50	8365	1962.5	LTE B25	20	8140	1940	LTE B41	20	40620	2593	-	-	-	-	15.18	14.94
CA_25A-41C	LTE B25	20	26365	1882.5	64QAM	1	50	8365	1962.5	LTE B41	20	40620	2593	LTE B41	20	40422	2573.2	-	-	-	-	14.93	14.94
CA_7A-7A-25A-66A	LTE B25	20	26365	1882.5	64QAM	1	50	8365	1962.5	LTE B7	20	3100	2655	LTE B7	20	2850	2630	LTE B66	20	67236	2190	14.20	14.94
CA_25A-25A-41C	LTE B25	20	26365	1882.5	64QAM	1	50	8365	1962.5	LTE B25	20	8590	1985	LTE B41	20	40620	2593	LTE B41	20	40422	2573.2	15.02	14.94
CA_25A-25A-41D	LTE B25	20	26365	1882.5	64QAM	1	50	8365	1962.5	LTE B25	20	8590	1985	LTE B41	20	40422	2573.2	LTE B41	20	40620	2593	15.05	14.94

G.2.9 LTE Band 30 as PCC

Table G-11
Maximum Output Powers

	PCC									SCC 1				SCC 2				SCC 3				Power	
Combination	PCC Band	PCC BW [MHz]	PCC (UL) Ch.	PCC (UL) Freq. [MHz]	Mod.	PCC UL# RB	PCC UL RB Offset	PCC (DL) Channel	PCC (DL) Freq. [MHz]	SCC Band	SCC BW [MHz]	SCC (DL) Channel	SCC (DL) Freq. [MHz]	SCC Band	SCC BW [MHz]	SCC (DL) Channel	SCC (DL) Freq. [MHz]	SCC Band	SCC BW [MHz]	SCC (DL) Channel	SCC (DL) Freq. [MHz]	LTE Tx.Power with DL CA Enabled (dBm)	LTE Single Carrier Tx Power (dBm)
CA_2C-30A	LTE B30	10	27710	2310	QPSK	1	25	9820	2355	LTE B2	20	900	1960	LTE B2	20	702	1940.2	-	-	-	-	14.50	14.41
CA_5B-30A	LTE B30	10	27710	2310	QPSK	1	25	9820	2355	LTE B5	10	2525	881.5	LTE B5	5	2453	874.3	-	-	-	-	14.48	14.41
CA_29A-30A-66A-66A	LTE B30	10	27710	2310	QPSK	1	25	9820	2355	LTE B29	10	9715	722.5	LTE B66	20	66786	2145	LTE B66	20	67236	2190	14.50	14.41
CA_30A-66A-66A-66A	LTE B30	10	27710	2310	QPSK	1	25	9820	2355	LTE B66	20	66936	2160	LTE B66	20	66786	2145	LTE B66	20	67236	2190	14.37	14.41
CA_2A-2A-5A-30A-66A	LTE B30	10	27710	2310	QPSK	1	25	9820	2355	LTE B2	20	900	1960	LTE B2	20	700	1940	LTE B5	10	2525	881.5	14.58	14.41
CA_2A-2A-12A-30A-66A	LTE B30	10	27710	2310	QPSK	1	25	9820	2355	LTE B2	20	900	1960	LTE B2	20	700	1940	LTE B12	10	5095	737.5	14.59	14.41
CA_2A-2A-14A-30A-66A	LTE B30	10	27710	2310	QPSK	1	25	9820	2355	LTE B2	20	900	1960	LTE B2	20	700	1940	LTE B14	10	5330	763	14.56	14.41
CA_2A-2A-29A-30A-66A	LTE B30	10	27710	2310	QPSK	1	25	9820	2355	LTE B2	20	900	1960	LTE B29	10	9715	722.5	LTE B5	20	700	1940	14.57	14.41
CA_2A-5A-30A-66A-66A	LTE B30	10	27710	2310	QPSK	1	25	9820	2355	LTE B2	20	900	1960	LTE B5	10	2525	881.5	LTE B66	20	66786	2145	14.64	14.41
CA_2A-12A-30A-66A-66A	LTE B30	10	27710	2310	QPSK	1	25	9820	2355	LTE B2	20	900	1960	LTE B12	10	5095	737.5	LTE B66	20	66786	2145	14.62	14.41
CA_2A-14A-30A-66A-66A	LTE B30	10	27710	2310	QPSK	1	25	9820	2355	LTE B2	20	900	1960	LTE B14	10	5330	763	LTE B66	20	66786	2145	14.59	14.41

G.2.10 LTE Band 7 as PCC

Table G-12
Maximum Output Powers

Combination	PCC									SCC 1				SCC 2				SCC 3				Power	
	PCC Band	PCC BW [MHz]	PCC (UL) Ch.	PCC (UL) Freq. [MHz]	Mod.	PCC UL# RB	PCC UL RB Offset	PCC (DL) Channel	PCC (DL) Freq. [MHz]	SCC Band	SCC BW [MHz]	SCC (DL) Channel	SCC (DL) Freq. [MHz]	SCC Band	SCC BW [MHz]	SCC (DL) Channel	SCC (DL) Freq. [MHz]	SCC Band	SCC BW [MHz]	SCC (DL) Channel	SCC (DL) Freq. [MHz]	LTE Tx.Power with DL CA Enabled (dBm)	LTE Single Carrier Tx Power (dBm)
CA_5A-7A	LTE B7	10	20800	2505	64QAM	1	49	2800	2625	LTE B5	10	2525	881.5	-	-	-	-	-	-	-	-	13.99	13.87
CA_7A-26A	LTE B7	5	21425	2567.5	256QAM	1	12	3425	2687.5	LTE B26	15	8865	876.5	-	-	-	-	-	-	-	-	14.00	13.90
CA_7A-29A	LTE B7	5	21425	2567.5	256QAM	1	12	3425	2687.5	LTE B29	10	9715	722.5	-	-	-	-	-	-	-	-	13.99	13.90
CA_7B	LTE B7	10	20800	2505	64QAM	1	49	2800	2625	LTE B7	20	2944	2639.4	-	-	-	-	-	-	-	-	14.00	13.87
CA_4A-4A-7A (1)	LTE B7	5	21425	2567.5	256QAM	1	12	3425	2687.5	LTE B4	20	2175	2132.5	LTE B4	10	2350	2150	-	-	-	-	13.46	13.90
CA_7A-7A-26A	LTE B7	10	20800	2505	64QAM	1	49	2800	2625	LTE B7	20	3350	2680	LTE B26	15	8865	876.5	-	-	-	-	13.85	13.87
CA_2A-4A-7A-7A	LTE B7	5	21425	2567.5	256QAM	1	12	3425	2687.5	LTE B7	20	2850	2630	LTE B2	20	900	1960	LTE B4	20	2175	2132.5	13.28	13.90
CA_2A-4A-7A-12A	LTE B7	5	21425	2567.5	256QAM	1	12	3425	2687.5	LTE B2	20	900	1960	LTE B4	20	2175	2132.5	LTE B12	10	5095	737.5	13.26	13.90
CA_2A-4A-7C	LTE B7	10	20800	2505	64QAM	1	49	2800	2625	LTE B7	20	2944	2639.4	LTE B2	20	900	1960	LTE B4	20	2175	2132.5	13.22	13.87
CA_2A-5A-7C	LTE B7	10	20800	2505	64QAM	1	49	2800	2625	LTE B7	20	2944	2639.4	LTE B2	20	900	1960	LTE B5	10	2525	881.5	13.15	13.87
CA_2A-7C-13A	LTE B7	10	20800	2505	64QAM	1	49	2800	2625	LTE B7	20	2944	2639.4	LTE B2	20	900	1960	LTE B13	10	5230	751	13.18	13.87
CA_2A-7C-66A	LTE B7	10	20800	2505	64QAM	1	49	2800	2625	LTE B7	20	2944	2639.4	LTE B2	20	900	1960	LTE B66	20	66786	2145	13.20	13.87
CA_5A-7A-66A-66A	LTE B7	10	20800	2505	64QAM	1	49	2800	2625	LTE B5	10	2525	881.5	LTE B66	20	66786	2145	LTE B66	20	67236	2190	13.17	13.87
CA_7A-7A-25A-66A	LTE B7	5	21425	2567.5	256QAM	1	12	3425	2687.5	LTE B7	20	2850	2630	LTE B25	20	8365	1962.5	LTE B66	20	67236	2190	13.31	13.90
CA_2A-2A-7A-12A-66A	LTE B7	5	21425	2567.5	256QAM	1	12	3425	2687.5	LTE B2	20	900	1960	LTE B2	20	700	1940	LTE B12	10	5095	737.5	13.12	13.90
CA_2A-2A-7A-66A-66A	LTE B7	5	21425	2567.5	256QAM	1	12	3425	2687.5	LTE B2	20	900	1960	LTE B2	20	700	1940	LTE B66	20	67236	2190	13.16	13.90
CA_2A-2A-7A-66A-71A	LTE B7	5	21425	2567.5	256QAM	1	12	3425	2687.5	LTE B2	20	900	1960	LTE B2	20	700	1940	LTE B66	20	67236	2190	13.07	13.90
CA_2A-5A-7A-7A-66A	LTE B7	5	21425	2567.5	256QAM	1	12	3425	2687.5	LTE B2	20	900	1960	LTE B5	10	2525	881.5	LTE B7	20	3100	2655	12.95	13.90
CA_2A-7A-7A-13A-66A	LTE B7	5	21425	2567.5	256QAM	1	12	3425	2687.5	LTE B7	20	2850	2630	LTE B2	20	900	1960	LTE B13	10	5230	751	13.36	13.90
CA_2A-7A-7A-66A-66A	LTE B7	5	21425	2567.5	256QAM	1	12	3425	2687.5	LTE B7	20	2850	2630	LTE B2	20	900	1960	LTE B66	20	66786	2145	13.07	13.90
CA_2A-7C-66A-66A	LTE B7	10	20800	2505	64QAM	1	49	2800	2625	LTE B7	20	2944	2639.4	LTE B2	20	900	1960	LTE B66	20	66786	2145	13.36	13.87
CA_5A-7C-66A-66A	LTE B7	10	20800	2505	64QAM	1	49	2800	2625	LTE B7	20	2944	2639.4	LTE B5	10	2525	881.5	LTE B66	20	66786	2145	13.05	13.87

G.2.11 LTE Band 41 as PCC

Table G-13
Maximum Output Powers

Combination	PCC									SCC 1				SCC 2				SCC 3				SCC 4				SCC 5				SCC 6				Power	
	PCC Band	PCC BW [MHz]	PCC (UL) Ch.	PCC (UL) Freq. [MHz]	Mod.	PCC UL# RB	PCC UL RB Offset	PCC (DL) Channel	PCC (DL) Freq. [MHz]	SCC Band	SCC BW [MHz]	SCC (DL) Channel	SCC (DL) Freq. [MHz]	SCC Band	SCC BW [MHz]	SCC (DL) Channel	SCC (DL) Freq. [MHz]	SCC Band	SCC BW [MHz]	SCC (DL) Channel	SCC (DL) Freq. [MHz]	SCC Band	SCC BW [MHz]	SCC (DL) Channel	SCC (DL) Freq. [MHz]	SCC Band	SCC BW [MHz]	SCC (DL) Channel	SCC (DL) Freq. [MHz]	SCC Band	SCC BW [MHz]	SCC (DL) Channel	SCC (DL) Freq. [MHz]	LTE Tx.Power with DL CA Enabled (dBm)	LTE Single Carrier Tx Power (dBm)
CA_5A-41A	LTE B41	20	41490	2680	QPSK	1	99	41490	2680	LTE B5	10	2525	881.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	13.97	13.95
CA_41A-41A (1)	LTE B41	20	41490	2680	QPSK	1	99	41490	2680	LTE B41	20	40340	2565	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	13.93	13.95
CA_41A-41C	LTE B41	20	41490	2680	QPSK	1	99	41490	2680	LTE B41	20	39948	2525.8	LTE B41	20	39750	2506	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	13.91	13.95
CA_41C-41A	LTE B41	20	41490	2680	QPSK	1	99	41490	2680	LTE B41	20	41292	2660.2	LTE B41	20	39750	2506	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	13.93	13.95
CA_41A-41D	LTE B41	20	41490	2680	QPSK	1	99	41490	2680	LTE B41	20	40245	2545.6	LTE B41	20	39948	2525.8	LTE B41	20	39750	2506	-	-	-	-	-	-	-	-	-	-	-	-	13.88	13.95
CA_41D-41A	LTE B41	20	41490	2680	QPSK	1	99	41490	2680	LTE B41	20	41292	2660.2	LTE B41	20	41094	2640.4	LTE B41	20	39750	2506	-	-	-	-	-	-	-	-	-	-	-	-	13.93	13.95
CA_41C-41C	LTE B41	20	41490	2680	QPSK	1	99	41490	2680	LTE B41	20	41292	2660.2	LTE B41	20	39948	2525.8	LTE B41	20	39750	2506	-	-	-	-	-	-	-	-	-	-	-	-	13.99	13.95
CA_41E	LTE B41	20	41490	2680	QPSK	1	99	41490	2680	LTE B41	20	41292	2660.2	LTE B41	20	41094	2640.4	LTE B41	20	40890	2520.6	-	-	-	-	-	-	-	-	-	-	-	-	13.95	13.95
CA_41C-41D	LTE B41	20	41490	2680	QPSK	1	99	41490	2680	LTE B41	20	41292	2660.2	LTE B41	20	40546	2545.6	LTE B41	20	39948	2525.8	LTE B41	20	39750	2506	-	-	-	-	-	-	-	-	13.80	13.95
CA_41D-41C	LTE B41	20	41490	2680	QPSK	1	99	41490	2680	LTE B41	20	41292	2660.2	LTE B41	20	41094	2640.4	LTE B41	20	39948	2525.8	LTE B41	20	39750	2506	-	-	-	-	-	-	-	-	13.81	13.95

G.2.12 LTE Band 48 as PCC

Table G-14
Maximum Output Powers

Combination	PCC									SCC 1				SCC 2				SCC 3				Power	
	PCC Band	PCC BW [MHz]	PCC (UL) Ch.	PCC (UL) Freq. [MHz]	Mod.	PCC UL# RB	PCC UL RB Offset	PCC (DL) Channel	PCC (DL) Freq. [MHz]	SCC Band	SCC BW [MHz]	SCC (DL) Channel	SCC (DL) Freq. [MHz]	SCC Band	SCC BW [MHz]	SCC (DL) Channel	SCC (DL) Freq. [MHz]	SCC Band	SCC BW [MHz]	SCC (DL) Channel	SCC (DL) Freq. [MHz]	LTE Tx.Power with DL CA Enabled (dBm)	LTE Single Carrier Tx Power (dBm)
CA_48A-48A	LTE B48	20	56207	3646.7	QPSK	50	25	56207	3646.7	LTE B48	20	55340	3560	-	-	-	-	-	-	-	-	13.75	13.71
CA_48B	LTE B48	15	55765	3602.5	QPSK	36	37	55765	3602.5	LTE B48	5	55858	3611.8	-	-	-	-	-	-	-	-	13.59	13.43
CA_48A-48C	LTE B48	20	56207	3646.7	QPSK	50	25	56207	3646.7	LTE B48	20	55340	3560	LTE B48	20	55538	3579.8	-	-	-	-	13.71	13.71
CA_48C-48A	LTE B48	20	56207	3646.7	QPSK	50	25	56207	3646.7	LTE B48	20	56009	3626.9	LTE B48	20	55340	3560	-	-	-	-	13.74	13.71
CA_48D	LTE B48	20	56207	3646.7	QPSK	50	25	56207	3646.7	LTE B48	20	56009	3626.9	LTE B48	20	55811	3607.1	-	-	-	-	13.69	13.71
CA_48E	LTE B48	20	56207	3646.7	QPSK	50	25	56207	3646.7	LTE B48	20	56009	3626.9	LTE B48	20	55811	3607.1	LTE B48	20	55613	3587.3	13.66	13.71

G.3 DLCA with DL 4x4 MIMO RF Conduction Powers

This device supports downlink 4x4 MIMO operations for some LTE bands. Uplink transmission is limited to a single output stream. When carrier aggregation was applicable, the general test selection and setup procedures described in Section 0 were applied.

Per May 2017 TCB Workshop Notes, SAR for 4x4 DL MIMO was not needed since the maximum average output power in 4x4 DL MIMO mode was not more than 0.25 dB higher than the maximum output power with 4x4 DL MIMO inactive. Additionally, SAR for 4x4 MIMO Downlink Carrier Aggregation was not needed since the maximum average output power in 4x4 MIMO Downlink Carrier Aggregation mode was not more than 0.25 dB higher than the maximum output power with 4x4 MIMO Downlink and downlink carrier aggregation inactive.

G.3.1 LTE 4x4 MIMO DL Standalone Powers

Table G-15
Maximum Output Powers Ant 1

LTE Band	Bandwidth [MHz]	Channel	Frequency [MHz]	Modulation	RB Size	RB Offset	4x4 DL MIMO Tx. Power [dBm]	Single Antenna Tx. Power [dBm]	Target Power [dBm]
30	10	27710	2310	QPSK	1	25	14.58	14.41	13.9
48	20	56207	3646.7	QPSK	50	25	13.73	13.71	13.0

Table G-16
Maximum Output Powers Ant 2b

LTE Band	Bandwidth [MHz]	Channel	Frequency [MHz]	Modulation	RB Size	RB Offset	4x4 DL MIMO Tx. Power [dBm]	Single Antenna Tx. Power [dBm]	Target Power [dBm]
41	20	41490	2680	QPSK	1	99	14.71	14.75	14.5

Table G-17
Maximum Output Powers Ant 3

LTE Band	Bandwidth [MHz]	Channel	Frequency [MHz]	Modulation	RB Size	RB Offset	4x4 DL MIMO Tx. Power [dBm]	Single Antenna Tx. Power [dBm]	Target Power [dBm]
66	5	131997	1712.5	64QAM	1	12	17.29	17.23	16.4
25	20	26365	1882.5	64QAM	1	50	15.18	14.94	15.0
7	5	21425	2567.5	256QAM	1	12	13.98	13.90	13.0

G.3.2 LTE Band 12 as PCC

Table G-18
Maximum Output Powers

	PCC										SCC 1					SCC 2					SCC 3					SCC 4					Power	
Combination	PCC Band	PCC BW [MHz]	PCC (UL) Ch.	PCC (UL) Freq. [MHz]	Mod.	PCC UL# RB	PCC UL RB Offset	PCC (DL) Ch.	PCC (DL) Freq. [MHz]	DL Ant. Config.	SCC Band	SCC BW [MHz]	SCC (DL) Ch.	SCC (DL) Freq. [MHz]	DL Ant. Config.	SCC Band	SCC BW [MHz]	SCC (DL) Ch.	SCC (DL) Freq. [MHz]	DL Ant. Config.	SCC Band	SCC BW [MHz]	SCC (DL) Ch.	SCC (DL) Freq. [MHz]	DL Ant. Config.	SCC Band	SCC BW [MHz]	SCC (DL) Ch.	SCC (DL) Freq. [MHz]	DL Ant. Config.	LTE Tx.Power with DL CA Enabled (dBm)	LTE Single Carrier Tx Power (dBm)
CA_[2A]-12A (1)	LTE B12	3	23025	700.5	16QAM	1	7	5025	730.5	2x2	LTE B2	20	900	1960	4x4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	19.69	20.03
CA_[4A]-12A (1)	LTE B12	5	23035	701.5	16QAM	1	12	5035	731.5	2x2	LTE B4	20	2175	2132.5	4x4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	19.47	19.96
CA_[4A]-12A (2)	LTE B12	3	23025	700.5	16QAM	1	7	5025	730.5	2x2	LTE B4	20	2175	2132.5	4x4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	19.68	20.03
CA_12A-[25A]	LTE B12	5	23035	701.5	16QAM	1	12	5035	731.5	2x2	LTE B25	20	8365	1962.5	4x4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	19.53	19.96
CA_12A-[48A]	LTE B12	5	23035	701.5	16QAM	1	12	5035	731.5	2x2	LTE B48	20	55990	3625	4x4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	19.84	19.96
CA_12A-[66A] (1)	LTE B12	5	23035	701.5	16QAM	1	12	5035	731.5	2x2	LTE B66	20	66786	2145	4x4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	19.90	19.96
CA_12A-[66A] (2)	LTE B12	3	23025	700.5	16QAM	1	7	5025	730.5	2x2	LTE B66	20	66786	2145	4x4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	19.59	20.03
CA_[2C]-12A	LTE B12	5	23035	701.5	16QAM	1	12	5035	731.5	2x2	LTE B2	20	900	1960	4x4	LTE B2	20	702	1940.2	4x4	-	-	-	-	-	-	-	-	-	-	19.20	19.96
CA_12A-[48C]	LTE B12	5	23035	701.5	16QAM	1	12	5035	731.5	2x2	LTE B48	20	55990	3625	4x4	LTE B48	20	56188	3644.8	4x4	-	-	-	-	-	-	-	-	-	-	20.06	19.96
CA_[2A]-[2A]-[4A]-12A	LTE B12	5	23035	701.5	16QAM	1	12	5035	731.5	2x2	LTE B2	20	900	1960	4x4	LTE B2	20	700	1940	4x4	LTE B4	20	2175	2132.5	4x4	-	-	-	-	-	19.53	19.96
CA_[2A]-[2A]-12B	LTE B12	5	23035	701.5	16QAM	1	12	5035	731.5	2x2	LTE B12	10	5107	738.7	2x2	LTE B2	20	900	1960	4x4	LTE B2	20	700	1940	4x4	-	-	-	-	-	19.48	19.96
CA_[2A]-[4A]-[4A]-12A	LTE B12	5	23035	701.5	16QAM	1	12	5035	731.5	2x2	LTE B2	20	900	1960	4x4	LTE B4	20	2175	2132.5	4x4	LTE B4	10	2350	2150	4x4	-	-	-	-	-	19.56	19.96
CA_[2A]-[4A]-[7A]-12A	LTE B12	5	23035	701.5	16QAM	1	12	5035	731.5	2x2	LTE B2	20	900	1960	4x4	LTE B4	20	2175	2132.5	4x4	LTE B7	20	3100	2655	4x4	-	-	-	-	-	19.60	19.96
CA_[2A]-[4A]-12B	LTE B12	5	23035	701.5	16QAM	1	12	5035	731.5	2x2	LTE B12	10	5107	738.7	2x2	LTE B2	20	900	1960	4x4	LTE B4	20	2175	2132.5	4x4	-	-	-	-	-	19.51	19.96
CA_[2A]-12A-[66C]	LTE B12	5	23035	701.5	16QAM	1	12	5035	731.5	2x2	LTE B2	20	900	1960	4x4	LTE B66	20	66786	2145	4x4	LTE B66	20	66984	2164.8	4x4	-	-	-	-	-	19.57	19.96
CA_[4A]-[4A]-12B	LTE B12	5	23035	701.5	16QAM	1	12	5035	731.5	2x2	LTE B12	10	5107	738.7	2x2	LTE B4	20	2175	2132.5	4x4	LTE B4	10	2350	2150	4x4	-	-	-	-	-	19.49	19.96
CA_[2A]-[2A]-[7A]-12A-[66A]	LTE B12	5	23035	701.5	16QAM	1	12	5035	731.5	2x2	LTE B2	20	900	1960	4x4	LTE B2	20	700	1940	4x4	LTE B7	20	3100	2655	4x4	LTE B66	20	66786	2145	4x4	19.26	19.96
CA_[2A]-[2A]-12A-[30A]-[66A]	LTE B12	5	23035	701.5	16QAM	1	12	5035	731.5	2x2	LTE B2	20	900	1960	4x4	LTE B2	20	700	1940	4x4	LTE B30	10	9820	2355	4x4	LTE B66	20	66786	2145	4x4	19.23	19.96
CA_[2A]-[2A]-12A-[66A]-[66A]	LTE B12	5	23035	701.5	16QAM	1	12	5035	731.5	2x2	LTE B2	20	900	1960	4x4	LTE B2	20	700	1940	4x4	LTE B66	20	66786	2145	4x4	LTE B66	20	67236	2190	4x4	19.27	19.96
CA_[2A]-12A-[30A]-[66A]-[66A]	LTE B12	5	23035	701.5	16QAM	1	12	5035	731.5	2x2	LTE B2	20	900	1960	4x4	LTE B30	10	9820	2355	4x4	LTE B66	20	66786	2145	4x4	LTE B66	20	67236	2190	4x4	19.21	19.96

G.3.3 LTE Band 13 as PCC

Table G-19
Maximum Output Powers

	PCC										SCC 1					SCC 2					SCC 3					SCC 4					Power	
Combination	PCC Band	PCC BW [MHz]	PCC (UL) Ch.	PCC (UL) Freq. [MHz]	Mod.	PCC UL# RB	PCC UL RB Offset	PCC (DL) Ch.	PCC (DL) Freq. [MHz]	DL Ant. Config.	SCC Band	SCC BW [MHz]	SCC (DL) Ch.	SCC (DL) Freq. [MHz]	DL Ant. Config.	SCC Band	SCC BW [MHz]	SCC (DL) Ch.	SCC (DL) Freq. [MHz]	DL Ant. Config.	SCC Band	SCC BW [MHz]	SCC (DL) Ch.	SCC (DL) Freq. [MHz]	DL Ant. Config.	SCC Band	SCC BW [MHz]	SCC (DL) Ch.	SCC (DL) Freq. [MHz]	DL Ant. Config.	LTE Tx.Power with DL CA Enabled (dBm)	LTE Single Carrier Tx Power (dBm)
CA_[2A]-[4A]-13A	LTE B13	10	23230	782	16QAM	1	49	5230	751	2x2	LTE B2	20	900	1960	4x4	LTE B4	20	2175	2132.5	4x4	-	-	-	-	-	-	-	-	-	-	19.77	20.48
CA_[2A]-13A-[48A]	LTE B13	5	23230	782	64QAM	1	24	5230	751	2x2	LTE B2	20	900	1960	4x4	LTE B48	20	55990	3625	2x2	-	-	-	-	-	-	-	-	-	-	19.95	20.67
CA_[4A]-[4A]-13A	LTE B13	10	23230	782	16QAM	1	49	5230	751	2x2	LTE B4	10	2350	2150	4x4	LTE B4	10	2350	2150	4x4	-	-	-	-	-	-	-	-	-	-	19.85	20.48
CA_13A-[48A]-[66A]	LTE B13	5	23230	782	64QAM	1	24	5230	751	2x2	LTE B48	20	55990	3625	4x4	LTE B66	20	66786	2145	4x4	-	-	-	-	-	-	-	-	-	-	20.15	20.67
CA_[2A]-[7C]-13A	LTE B13	5	23230	782	64QAM	1	24	5230	751	2x2	LTE B2	20	900	1960	4x4	LTE B7	20	3100	2655	4x4	LTE B7	20	2902	2635.2	4x4	-	-	-	-	-	20.07	20.67
CA_[2A]-13A-[48C]	LTE B13	5	23230	782	64QAM	1	24	5230	751	2x2	LTE B2	20	900	1960	4x4	LTE B48	20	55990	3625	4x4	LTE B48	20	56188	3644.8	4x4	-	-	-	-	-	20.14	20.67
CA_[2A]-13A-[66B]	LTE B13	5	23230	782	64QAM	1	24	5230	751	2x2	LTE B2	20	900	1960	4x4	LTE B66	15	66786	2145	4x4	LTE B66	5	66879	2154.3	4x4	-	-	-	-	-	20.11	20.67
CA_[2A]-13A-[66C]	LTE B13	5	23230	782	64QAM	1	24	5230	751	2x2	LTE B2	20	900	1960	4x4	LTE B66	20	66786	2145	4x4	LTE B66	20	66984	2164.8	4x4	-	-	-	-	-	20.04	20.67
CA_13A-[48C]-[66A]	LTE B13	5	23230	782	64QAM	1	24	5230	751	2x2	LTE B48	20	55990	3625	4x4	LTE B48	20	56188	3644.8	4x4	LTE B66	20	66786	2145	4x4	-	-	-	-	-	20.17	20.67
CA_13A-[66A]-[66B]	LTE B13	5	23230	782	64QAM	1	24	5230	751	2x2	LTE B66	20	66786	2145	4x4	LTE B66	5	67168	2183.2	4x4	LTE B66	15	67261	2192.5	4x4	-	-	-	-	-	20.29	20.67
CA_13A-[66A]-[66C]	LTE B13	5	23230	782	64QAM	1	24	5230	751	2x2	LTE B66	20	66786	2145	4x4	LTE B66	20	67038	2170.2	4x4	LTE B66	20	67236	2190	4x4	-	-	-	-	-	20.06	20.67
CA_[2A]-[2A]-13A-[66A]-[66A]	LTE B13	5	23230	782	64QAM	1	24	5230	751	2x2	LTE B2	20	900	1960	4x4	LTE B2	20	700	1940	4x4	LTE B66	20	66786	2145	4x4	LTE B66	20	67236	2190	4x4	20.14	20.67
CA_[2A]-[7A]-[7A]-13A-[66A]	LTE B13	5	23230	782	64QAM	1	24	5230	751	2x2	LTE B2	20	900	1960	4x4	LTE B7	20	2850	2630	4x4	LTE B7	20	3100	2655	4x4	LTE B66	20	66536	2120	4x4	19.92	20.67
CA_13A-[48D]-[66A]	LTE B13	5	23230	782	64QAM	1	24	5230	751	2x2	LTE B48	20	55990	3625	4x4	LTE B48	20	56188	3644.8	4x4	LTE B48	20	56386	3664.6	4x4	LTE B66	20	66786	2145	4x4	20.00	20.67
CA_13A-[48E]	LTE B13	5	23230	782	64QAM	1	24	5230	751	2x2	LTE B48	20	55990	3625	4x4	LTE B48	20	56188	3644.8	4x4	LTE B48	20	56386	3664.6	4x4	LTE B48	20	56584	3684.4	4x4	20.76	20.67

G.3.4 LTE Band 14 as PCC

Table G-20
Maximum Output Powers

	PCC										SCC 1					SCC 2					SCC 3					SCC 4					Power	
Combination	PCC Band	PCC BW [MHz]	PCC (UL) Ch.	PCC (UL) Freq. [MHz]	Mod.	PCC UL# RB	PCC UL RB Offset	PCC (DL) Ch.	PCC (DL) Freq. [MHz]	DL Ant. Config.	SCC Band	SCC BW [MHz]	SCC (DL) Ch.	SCC (DL) Freq. [MHz]	DL Ant. Config.	SCC Band	SCC BW [MHz]	SCC (DL) Ch.	SCC (DL) Freq. [MHz]	DL Ant. Config.	SCC Band	SCC BW [MHz]	SCC (DL) Ch.	SCC (DL) Freq. [MHz]	DL Ant. Config.	SCC Band	SCC BW [MHz]	SCC (DL) Ch.	SCC (DL) Freq. [MHz]	DL Ant. Config.	LTE Tx.Power with DL CA Enabled (dBm)	LTE Single Carrier Tx Power (dBm)
CA_[2A]-[2A]-14A-[30A]-[66A]	LTE B14	5	23330	793	16QAM	1	12	5330	763	2x2	LTE B2	20	900	1960	4x4	LTE B2	20	700	1940	4x4	LTE B30	10	9820	2355	4x4	LTE B66	20	66786	2145	4x4	18.75	19.70
CA_[2A]-[2A]-14A-[66A]-[66A]	LTE B14	5	23330	793	16QAM	1	12	5330	763	2x2	LTE B2	20	900	1960	4x4	LTE B2	20	700	1940	4x4	LTE B66	20	66786	2145	4x4	LTE B66	20	67236	2190	4x4	18.74	19.70
CA_[2A]-14A-[30A]-[66A]-[66A]	LTE B14	5	23330	793	16QAM	1	12	5330	763	2x2	LTE B2	20	900	1960	4x4	LTE B30	10	9820	2355	4x4	LTE B66	20	66786	2145	4x4	LTE B66	20	67236	2190	4x4	18.71	19.70

G.3.5 LTE Band 71 as PCC

Table G-21
Maximum Output Powers

	PCC										SCC 1					SCC 2					SCC 3					Power	
Combination	PCC Band	PCC BW [MHz]	PCC (UL) Ch.	PCC (UL) Freq. [MHz]	Mod.	PCC UL# RB	PCC UL RB Offset	PCC (DL) Ch.	PCC (DL) Freq. [MHz]	DL Ant. Config.	SCC Band	SCC BW [MHz]	SCC (DL) Ch.	SCC (DL) Freq. [MHz]	DL Ant. Config.	SCC Band	SCC BW [MHz]	SCC (DL) Ch.	SCC (DL) Freq. [MHz]	DL Ant. Config.	SCC Band	SCC BW [MHz]	SCC (DL) Ch.	SCC (DL) Freq. [MHz]	DL Ant. Config.	LTE Tx.Power with DL CA Enabled (dBm)	LTE Single Carrier Tx Power (dBm)
CA_[2A]-[4A]-71A	LTE B71	10	133172	668	16QAM	1	25	68636	622	2x2	LTE B2	20	900	1960	4x4	LTE B4	20	2175	2132.5	4x4	-	-	-	-	-	19.55	20.44
CA_[4A]-[4A]-71A	LTE B71	10	133172	668	16QAM	1	25	68636	622	2x2	LTE B4	20	2175	2132.5	4x4	LTE B4	10	2350	2150	4x4	-	-	-	-	-	19.53	20.44
CA_[2A]-[66A]-[66A]-71A	LTE B71	10	133172	668	16QAM	1	25	68636	622	2x2	LTE B2	20	900	1960	4x4	LTE B66	20	66786	2145	4x4	LTE B66	20	67236	2190	4x4	19.77	20.44
CA_[2A]-[66C]-71A	LTE B71	10	133172	668	16QAM	1	25	68636	622	2x2	LTE B2	20	900	1960	4x4	LTE B66	20	66786	2145	4x4	LTE B66	20	66984	2164.8	4x4	19.74	20.44

G.3.6 LTE Band 5 as PCC

Table G-22
Maximum Output Powers

	PCC										SCC 1					SCC 2					SCC 3					SCC 4					Power	
Combination	PCC Band	PCC BW [MHz]	PCC (UL) Ch.	PCC (UL) Freq. [MHz]	Mod.	PCC UL# RB	PCC UL RB Offset	PCC (DL) Ch.	PCC (DL) Freq. [MHz]	DL Ant. Config.	SCC Band	SCC BW [MHz]	SCC (DL) Ch.	SCC (DL) Freq. [MHz]	DL Ant. Config.	SCC Band	SCC BW [MHz]	SCC (DL) Ch.	SCC (DL) Freq. [MHz]	DL Ant. Config.	SCC Band	SCC BW [MHz]	SCC (DL) Ch.	SCC (DL) Freq. [MHz]	DL Ant. Config.	SCC Band	SCC BW [MHz]	SCC (DL) Ch.	SCC (DL) Freq. [MHz]	DL Ant. Config.	LTE Tx.Power with DL CA Enabled (dBm)	LTE Single Carrier Tx Power (dBm)
CA_5A-[7A]	LTE B5	5	20525	836.5	16QAM	1	12	2525	881.5	2x2	LTE B7	20	3100	2655	4x4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	18.49	19.09
CA_5A-[25A]	LTE B5	5	20525	836.5	16QAM	1	12	2525	881.5	2x2	LTE B25	20	8365	1962.5	4x4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	18.70	19.09
CA_5A-[41A]	LTE B5	5	20525	836.5	16QAM	1	12	2525	881.5	2x2	LTE B41	20	40620	2593	4x4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	19.08	19.09
CA_[2C]-5A	LTE B5	5	20525	836.5	16QAM	1	12	2525	881.5	2x2	LTE B2	20	900	1960	4x4	LTE B2	20	702	1940.2	4x4	-	-	-	-	-	-	-	-	-	-	18.26	19.09
CA_[4A]-5B	LTE B5	5	20525	836.5	16QAM	1	12	2525	881.5	2x2	LTE B5	10	2453	874.3	2x2	LTE B4	20	2175	2132.5	4x4	-	-	-	-	-	-	-	-	-	-	18.29	19.09
CA_5B-[30A]	LTE B5	5	20525	836.5	16QAM	1	12	2525	881.5	2x2	LTE B5	10	2453	874.3	2x2	LTE B30	10	9820	2355	4x4	-	-	-	-	-	-	-	-	-	-	18.27	19.09
CA_[2A]-[2A]-[4A]-5A	LTE B5	5	20525	836.5	16QAM	1	12	2525	881.5	2x2	LTE B2	20	900	1960	4x4	LTE B2	20	700	1940	4x4	LTE B4	20	2175	2132.5	4x4	-	-	-	-	-	18.28	19.09
CA_[2A]-[4A]-[4A]-5A	LTE B5	5	20525	836.5	16QAM	1	12	2525	881.5	2x2	LTE B2	20	900	1960	4x4	LTE B4	20	2175	2132.5	4x4	LTE B4	10	2350	2150	4x4	-	-	-	-	-	18.25	19.09
CA_[2A]-5A-[7C]	LTE B5	5	20525	836.5	16QAM	1	12	2525	881.5	2x2	LTE B2	20	900	1960	4x4	LTE B7	20	3100	2655	4x4	LTE B7	20	2902	2635.2	4x4	-	-	-	-	-	18.26	19.09
CA_[2A]-5A-[48A]-[66A]	LTE B5	5	20525	836.5	16QAM	1	12	2525	881.5	2x2	LTE B2	20	900	1960	4x4	LTE B48	20	55990	3625	4x4	LTE B66	20	66786	2145	4x4	-	-	-	-	-	18.51	19.09
CA_[2A]-5A-[48C]	LTE B5	5	20525	836.5	16QAM	1	12	2525	881.5	2x2	LTE B2	20	900	1960	4x4	LTE B48	20	55990	3625	4x4	LTE B48	20	56188	3644.8	4x4	-	-	-	-	-	18.45	19.09
CA_[2A]-5B-[66A]	LTE B5	5	20525	836.5	16QAM	1	12	2525	881.5	2x2	LTE B5	10	2453	874.3	2x2	LTE B2	20	900	1960	4x4	LTE B66	20	66786	2145	4x4	-	-	-	-	-	18.35	19.09
CA_5A-[7A]-[66A]-[66A]	LTE B5	5	20525	836.5	16QAM	1	12	2525	881.5	2x2	LTE B7	20	3100	2655	4x4	LTE B66	20	66786	2145	4x4	LTE B66	20	67236	2190	4x4	-	-	-	-	-	18.27	19.09
CA_5A-[48C]-[66A]	LTE B5	5	20525	836.5	16QAM	1	12	2525	881.5	2x2	LTE B48	20	55990	3625	4x4	LTE B48	20	56188	3644.8	4x4	LTE B66	20	66786	2145	4x4	-	-	-	-	-	18.14	19.09
CA_5A-[48D]	LTE B5	5	20525	836.5	16QAM	1	12	2525	881.5	2x2	LTE B48	20	55990	3625	4x4	LTE B48	20	56188	3644.8	4x4	LTE B48	20	56386	3664.6	4x4	-	-	-	-	-	19.04	19.09
CA_5A-[66A]-[66B]	LTE B5	5	20525	836.5	16QAM	1	12	2525	881.5	2x2	LTE B66	20	66786	2145	4x4	LTE B66	15	67261	2192.5	4x4	LTE B66	5	67168	2183.2	4x4	-	-	-	-	-	18.37	19.09
CA_5A-[66A]-[66C]	LTE B5	5	20525	836.5	16QAM	1	12	2525	881.5	2x2	LTE B66	20	66786	2145	4x4	LTE B66	20	67236	2190	4x4	LTE B66	20	67038	2170.2	4x4	-	-	-	-	-	18.39	19.09
CA_[2A]-[2A]-5A-[30A]-[66A]	LTE B5	5	20525	836.5	16QAM	1	12	2525	881.5	2x2	LTE B2	20	900	1960	4x4	LTE B2	20	700	1940	4x4	LTE B30	10	9820	2355	4x4	LTE B66	20	66786	2145	4x4	18.36	19.09
CA_[2A]-[2A]-5A-[66A]-[66A]	LTE B5	5	20525	836.5	16QAM	1	12	2525	881.5	2x2	LTE B2	20	900	1960	4x4	LTE B2	20	700	1940	4x4	LTE B66	20	66786	2145	4x4	LTE B66	20	67236	2190	4x4	18.39	19.09
CA_[2A]-[2A]-5A-[66B]	LTE B5	5	20525	836.5	16QAM	1	12	2525	881.5	2x2	LTE B2	20	900	1960	4x4	LTE B2	20	700	1940	4x4	LTE B66	15	66786	2145	4x4	LTE B66	5	66879	2154.3	4x4	18.40	19.09
CA_[2A]-[2A]-5A-[66C]	LTE B5	5	20525	836.5	16QAM	1	12	2525	881.5	2x2	LTE B2	20	900	1960	4x4	LTE B2	20	700	1940	4x4	LTE B66	20	66786	2145	4x4	LTE B66	20	66984	2164.8	4x4	18.38	19.09
CA_[2A]-5A-[7A]-[7A]-[66A]	LTE B5	5	20525	836.5	16QAM	1	12	2525	881.5	2x2	LTE B7	20	2850	2630	4x4	LTE B2	20	900	1960	4x4	LTE B7	20	3152	2660.2	4x4	LTE B66	20	66536	2120	4x4	18.36	19.09
CA_[2A]-5A-[30A]-[66A]-[66A]	LTE B5	5	20525	836.5	16QAM	1	12	2525	881.5	2x2	LTE B2	20	900	1960	4x4	LTE B30	10	9820	2355	4x4	LTE B66	20	66786	2145	4x4	LTE B66	20	67236	2190	4x4	18.17	19.09
CA_[2A]-5A-[48A]-[66A]-[66A]	LTE B5	5	20525	836.5	16QAM	1	12	2525	881.5	2x2	LTE B2	20	900	1960	4x4	LTE B48	20	55990	3625	4x4	LTE B66	20	66786	2145	4x4	LTE B66	20	67236	2190	4x4	18.48	19.09
CA_5A-[7C]-[66A]-[66A]	LTE B5	5	20525	836.5	16QAM	1	12	2525	881.5	2x2	LTE B7	20	3100	2655	4x4	LTE B7	20	2902	2635.2	4x4	LTE B66	20	66786	2145	4x4	LTE B66	20	67236	2190	4x4	18.40	19.09
CA_5A-[48C]-[66A]-[66A]	LTE B5	5	20525	836.5	16QAM	1	12	2525	881.5	2x2	LTE B48	20	55990	3625	4x4	LTE B48	20	56188	3644.8	4x4	LTE B66	20	66786	2145	4x4	LTE B66	20	67236	2190	4x4	18.30	19.09

G.3.7 LTE Band 26 as PCC

Table G-23
Maximum Output Powers

	PCC										SCC 1					SCC 2					Power	
Combination	PCC Band	PCC BW [MHz]	PCC (UL) Ch.	PCC (UL) Freq. [MHz]	Mod.	PCC UL# RB	PCC UL RB Offset	PCC (DL) Ch.	PCC (DL) Freq. [MHz]	DL Ant. Config.	SCC Band	SCC BW [MHz]	SCC (DL) Ch.	SCC (DL) Freq. [MHz]	DL Ant. Config.	SCC Band	SCC BW [MHz]	SCC (DL) Ch.	SCC (DL) Freq. [MHz]	DL Ant. Config.	LTE Tx.Power with DL CA Enabled (dBm)	LTE Single Carrier Tx Power (dBm)
CA_[7A]-26A	LTE B26	10	26740	819	16QAM	1	0	8740	864	2x2	LTE B7	20	3100	2655	4x4	-	-	-	-	-	18.67	19.35
CA_[25A]-26A	LTE B26	1.4	26697	814.7	16QAM	1	5	8697	859.7	2x2	LTE B25	20	8365	1962.5	4x4	-	-	-	-	-	19.10	19.43
CA_26A-[41A]	LTE B26	10	26740	819	16QAM	1	0	8740	864	2x2	LTE B41	20	40620	2593	4x4	-	-	-	-	-	19.41	19.35
CA_[7A]-[7A]-26A	LTE B26	10	26740	819	16QAM	1	0	8740	864	2x2	LTE B7	20	3100	2655	4x4	LTE B7	20	2850	2630	4x4	18.78	19.35
CA_[25A]-[25A]-26A	LTE B26	3	26705	815.5	16QAM	1	7	8705	860.5	2x2	LTE B25	20	8365	1962.5	4x4	LTE B25	20	8590	1985	4x4	18.71	19.32
CA_26A-[41C]	LTE B26	10	26740	819	16QAM	1	0	8740	864	2x2	LTE B41	20	40620	2593	4x4	LTE B41	20	40422	2573.2	4x4	19.28	19.35

G.3.8 LTE Band 66 as PCC

Table G-24
Maximum Output Powers

	PCC										SCC 1					SCC 2					SCC 3					SCC 4					SCC 5					Power	
Combination	PCC Band	PCC BW [MHz]	PCC (UL) Ch.	PCC (UL) Freq. [MHz]	Mod.	PCC UL# RB	PCC UL RB Offset	PCC (DL) Ch.	PCC (DL) Freq. [MHz]	DL Ant. Config.	SCC Band	SCC BW [MHz]	SCC (DL) Ch.	SCC (DL) Freq. [MHz]	DL Ant. Config.	SCC Band	SCC BW [MHz]	SCC (DL) Ch.	SCC (DL) Freq. [MHz]	DL Ant. Config.	SCC Band	SCC BW [MHz]	SCC (DL) Ch.	SCC (DL) Freq. [MHz]	DL Ant. Config.	SCC Band	SCC BW [MHz]	SCC (DL) Ch.	SCC (DL) Freq. [MHz]	DL Ant. Config.	SCC Band	SCC BW [MHz]	SCC (DL) Ch.	SCC (DL) Freq. [MHz]	DL Ant. Config.	LTE Tx.Power with DL CA Enabled (dBm)	LTE Single Carrier Tx Power (dBm)
CA_12A-[66A] (1)	LTE B66	5	131997	1712.5	64QAM	1	12	66461	2112.5	4x4	LTE B12	10	5095	737.5	2x2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	16.50	17.23
CA_12A-[66A] (2)	LTE B66	5	131997	1712.5	64QAM	1	12	66461	2112.5	4x4	LTE B12	10	5095	737.5	2x2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	16.50	17.23
CA_[48A]-[48A]-[66A]	LTE B66	5	131997	1712.5	64QAM	1	12	66461	2112.5	4x4	LTE B48	20	55990	3625	4x4	LTE B48	20	56640	3690	4x4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	17.22	17.23
CA_[2A]-5A-[48A]-[66A]	LTE B66	5	131997	1712.5	64QAM	1	12	66461	2112.5	4x4	LTE B2	20	900	1960	4x4	LTE B5	10	2525	881.5	2x2	LTE B48	20	55990	3625	4x4	-	-	-	-	-	-	-	-	-	-	16.56	17.23
CA_[2A]-5B-[66A]	LTE B66	5	131997	1712.5	64QAM	1	12	66461	2112.5	4x4	LTE B2	20	900	1960	4x4	LTE B5	10	2525	881.5	2x2	LTE B5	5	2453	874.3	2x2	-	-	-	-	-	-	-	-	-	-	16.57	17.23
CA_[2A]-[7C]-[66A]	LTE B66	5	131997	1712.5	64QAM	1	12	66461	2112.5	4x4	LTE B2	20	900	1960	4x4	LTE B7	20	3100	2655	4x4	LTE B7	20	2902	2635.2	4x4	-	-	-	-	-	-	-	-	-	-	16.60	17.23
CA_[2A]-12A-[66C]	LTE B66	5	131997	1712.5	64QAM	1	12	66461	2112.5	4x4	LTE B66	20	66578	2124.2	4x4	LTE B2	20	900	1960	4x4	LTE B12	10	5095	737.5	2x2	-	-	-	-	-	-	-	-	-	-	16.61	17.23
CA_[2A]-13A-[66B]	LTE B66	5	131997	1712.5	64QAM	1	12	66461	2112.5	4x4	LTE B66	15	66554	2121.8	4x4	LTE B2	20	900	1960	4x4	LTE B13	10	5230	751	2x2	-	-	-	-	-	-	-	-	-	-	16.60	17.23
CA_[2A]-13A-[66C]	LTE B66	5	131997	1712.5	64QAM	1	12	66461	2112.5	4x4	LTE B66	20	66578	2124.2	4x4	LTE B2	20	900	1960	4x4	LTE B13	10	5230	751	2x2	-	-	-	-	-	-	-	-	-	-	16.54	17.23
CA_[2A]-[66A]-[66A]-[66A]	LTE B66	5	131997	1712.5	64QAM	1	12	66461	2112.5	4x4	LTE B66	20	66786	2145	4x4	LTE B66	20	67236	2190	4x4	LTE B2	20	900	1960	4x4	-	-	-	-	-	-	-	-	-	-	16.59	17.23
CA_[2A]-[66A]-[66A]-71A	LTE B66	5	131997	1712.5	64QAM	1	12	66461	2112.5	4x4	LTE B66	20	67236	2190	4x4	LTE B2	20	900	1960	4x4	LTE B71	20	68761	634.5	2x2	-	-	-	-	-	-	-	-	-	-	16.56	17.23
CA_[2A]-[66A]-[66B]	LTE B66	5	131997	1712.5	64QAM	1	12	66461	2112.5	4x4	LTE B66	15	67218	2188.2	4x4	LTE B66	5	67311	2197.5	4x4	LTE B2	20	900	1960	4x4	-	-	-	-	-	-	-	-	-	-	16.60	17.23
CA_[2A]-[66B]-[66A]	LTE B66	5	131997	1712.5	64QAM	1	12	66461	2112.5	4x4	LTE B66	15	66554	2121.8	4x4	LTE B66	20	67236	2190	4x4	LTE B2	20	900	1960	4x4	-	-	-	-	-	-	-	-	-	-	16.62	17.23
CA_[2A]-[66A]-[66C]	LTE B66	5	131997	1712.5	64QAM	1	12	66461	2112.5	4x4	LTE B66	20	67038	2170.2	4x4	LTE B66	20	67236	2190	4x4	LTE B2	20	900	1960	4x4	-	-	-	-	-	-	-	-	-	-	16.58	17.23
CA_[2A]-[66C]-[66A]	LTE B66	5	131997	1712.5	64QAM	1	12	66461	2112.5	4x4	LTE B66	20	66578	2124.2	4x4	LTE B66	20	67236	2190	4x4	LTE B2	20	900	1960	4x4	-	-	-	-	-	-	-	-	-	-	16.56	17.23
CA_[2A]-[66C]-71A	LTE B66	5	131997	1712.5	64QAM	1	12	66461	2112.5	4x4	LTE B66	20	66578	2124.2	4x4	LTE B2	20	900	1960	4x4	LTE B71	20	68761	634.5	2x2	-	-	-	-	-	-	-	-	-	-	16.61	17.23
CA_[2C]-[66A]-[66A]	LTE B66	5	131997	1712.5	64QAM	1	12	66461	2112.5	4x4	LTE B66	20	67236	2190	4x4	LTE B2	20	900	1960	4x4	LTE B2	20	702	1940.2	4x4	-	-	-	-	-	-	-	-	-	-	16.65	17.23
CA_5A-[7A]-[66A]-[66A]	LTE B66	5	131997	1712.5	64QAM	1	12	66461	2112.5	4x4	LTE B66	20	67236	2190	4x4	LTE B5	10	2525	881.5	2x2	LTE B7	20	3100	2655	4x4	-	-	-	-	-	-	-	-	-	-	16.60	17.23
CA_5A-[48C]-[66A]	LTE B66	5	131997	1712.5	64QAM	1	12	66461	2112.5	4x4	LTE B5	10	2525	881.5	2x2	LTE B48	20	55990	3625	4x4	LTE B48	20	56188	3644.8	4x4	-	-	-	-	-	-	-	-	-	-	16.61	17.23
CA_5A-[66A]-[66B]	LTE B66	5	131997	1712.5	64QAM	1	12	66461	2112.5	4x4	LTE B66	15	67218	2188.2	4x4	LTE B66	5	67311	2197.5	4x4	LTE B5	10	2525	881.5	2x2	-	-	-	-	-	-	-	-	-	-	16.45	17.23
CA_5A-[66B]-[66A]	LTE B66	5	131997	1712.5	64QAM	1	12	66461	2112.5	4x4	LTE B66	15	66554	2121.8	4x4	LTE B66	20	67236	2190	4x4	LTE B5	10	2525	881.5	2x2	-	-	-	-	-	-	-	-	-	-	16.58	17.23
CA_5A-[66A]-[66C]	LTE B66	5	131997	1712.5	64QAM	1	12	66461	2112.5	4x4	LTE B66	20	67038	2170.2	4x4	LTE B66	20	67236	2190	4x4	LTE B5	10	2525	881.5	2x2	-	-	-	-	-	-	-	-	-	-	16.46	17.23
CA_5A-[66C]-[66A]	LTE B66	5	131997	1712.5	64QAM	1	12	66461	2112.5	4x4	LTE B66	20	66578	2124.2	4x4	LTE B66	20	67236	2190	4x4	LTE B5	10	2525	881.5	2x2	-	-	-	-	-	-	-	-	-	-	16.48	17.23
CA_[7A]-[7A]-[25A]-[66A]	LTE B66	5	131997	1712.5	64QAM	1	12	66461	2112.5	4x4	LTE B7	20	3100	2655	4x4	LTE B7	20	2850	2630	4x4	LTE B25	20	8365	1962.5	4x4	-	-	-	-	-	-	-	-	-	-	16.57	17.23
CA_13A-[48C]-[66A]	LTE B66	5	131997	1712.5	64QAM	1	12	66461	2112.5	4x4	LTE B13	10	5230	751	2x2	LTE B48	20	55990	3625	4x4	LTE B48	20	56188	3644.8	4x4	-	-	-	-	-	-	-	-	-	-	16.59	17.23
CA_13A-[66A]-[66B]	LTE B66	5	131997	1712.5	64QAM	1	12	66461	2112.5	4x4	LTE B66	15	67218	2188.2	4x4	LTE B66	5	67311	2197.5	4x4	LTE B13	10	5230	751	2x2	-	-	-	-	-	-	-	-	-	-	16.66	17.23
CA_13A-[66B]-[66A]	LTE B66	5	131997	1712.5	64QAM	1	12	66461	2112.5	4x4	LTE B66	15	66554	2121.8	4x4	LTE B66	20	67236	2190	4x4	LTE B13	10	5230	751	2x2	-	-	-	-	-	-	-	-	-	-	16.48	17.23
CA_13A-[66A]-[66C]	LTE B66	5	131997	1712.5	64QAM	1	12	66461	2112.5	4x4	LTE B66	20	67038	2170.2	4x4	LTE B66	20	67236	2190	4x4	LTE B13	10	5230	751	2x2	-	-	-	-	-	-	-	-	-	-	16.55	17.23
CA_13A-[66C]-[66A]	LTE B66	5	131997	1712.5	64QAM	1	12	66461	2112.5	4x4	LTE B66	20	66578	2124.2	4x4	LTE B66	20	67236	2190	4x4	LTE B13	10	5230	751	2x2	-	-	-	-	-	-	-	-	-	-	16.49	17.23
CA_29A-[30A]-[66A]-[66A]	LTE B66	5	131997	1712.5	64QAM	1	12	66461	2112.5	4x4	LTE B66	20	67236	2190	4x4	LTE B29	10	9715	722.5	2x2	LTE B30	10	9820	2355	4x4	-	-	-	-	-	-	-	-	-	-	16.54	17.23
CA_[30A]-[66A]-[66A]-[66A]	LTE B66	5	131997	1712.5	64QAM	1	12	66461	2112.5	4x4	LTE B66	20	66786	2145	4x4	LTE B66	20	67236	2190	4x4	LTE B30	10	9820	2355	4x4	-	-	-	-	-	-	-	-	-	-	16.66	17.23
CA_[48A]-[48C]-[66A]	LTE B66	5	131997	1712.5	64QAM	1	12	66461	2112.5	4x4	LTE B48	20	55990	3625	4x4	LTE B48	20	55340	3560	4x4	LTE B48	20	55538	3579.8	4x4	-	-	-	-	-	-	-	-	-	-	17.30	17.23
CA_[2A]-[2A]-5A-[30A]-[66A]	LTE B66	5	131997	1712.5	64QAM	1	12	66461	2112.5	4x4	LTE B2	20	900	1960	4x4	LTE B2	20	700	1940	4x4	LTE B5	10	2525	881.5	2x2	LTE B30	10	9820	2355	4x4	-	-	-	-	-	16.30	17.23
CA_[2A]-[2A]-5A-[66A]-[66A]	LTE B66	5	131997	1712.5	64QAM	1	12	66461	2112.5	4x4	LTE B66	20	67236	2190	4x4	LTE B2	20	900	1960	4x4	LTE B2	20	700	1940	4x4	LTE B5	10	2525	881.5	2x2	-	-	-	-	-	16.39	17.23
CA_[2A]-[2A]-5A-[66B]	LTE B66	5	131997	1712.5	64QAM	1	12	66461	2112.5	4x4	LTE B66	15	66554	2121.8	4x4	LTE B2	20	900	1960	4x4	LTE B2	20	700	1940	4x4	LTE B5	10	2525	881.5	2x2	-	-	-	-	-	16.39	17.23
CA_[2A]-[2A]-5A-[66C]	LTE B66	5	131997	1712.5	64QAM	1	12	66461	2112.5	4x4	LTE B66	20	66578	2124.2	4x4	LTE B2	20	900	1960	4x4	LTE B2	20	700	1940	4x4	LTE B5	10	2525	881.5	2x2	-	-	-	-	-	16.37	17.23
CA_[2A]-[2A]-[7A]-12A-[66A]	LTE B66	5	131997	1712.5	64QAM	1	12	66461	2112.5	4x4	LTE B2	20	900	1960	4x4	LTE B2	20	700	1940	4x4	LTE B7	20	3100	2655	4x4	LTE B12	10	5095	737.5	2x2	-	-	-	-	-	16.29	17.23
CA_[2A]-[2A]-[7A]-[66A]-[66A]	LTE B66	5	131997	1712.5	64QAM	1	12	66461	2112.5	4x4	LTE B2	20	900	1960	4x4	LTE B2	20	700	1940	4x4	LTE B7	20	3100	2655	4x4	LTE B66	20	66786	2145	4x4	-	-	-	-	-	16.38	17.23
CA_[2A]-[2A]-[7A]-[66A]-71A	LTE B66	5	131997	1712.5	64QAM	1	12	66461	2112.5	4x4	LTE B2	20	900	1960	4x4	LTE B2	20	700	1940	4x4	LTE B7	20	3100	2655	4x4	LTE B71	20	68761	634.5	2x2	-	-	-	-	-	16.32	17.23
CA_[2A]-[2A]-12A-[30A]-[66A]	LTE B66	5	131997	1712.5	64QAM	1	12	66461	2112.5	4x4	LTE B2	20	900	1960	4x4	LTE B2	20	700	1940	4x4	LTE B12	10	5095	737.5	2x2	LTE B30	10	9820	2355	4x4	-	-	-	-	-	16.30	17.23
CA_[2A]-[2A]-12A-[66A]-[66A]	LTE B66	5	131997	1712.5	64QAM	1	12	66461	2112.5	4x4	LTE B66	20	67236	2190	4x4	LTE B2	20	900	1960	4x4	LTE B2	20	700	1940	4x4	LTE B12	10	5095	737.5	2x2	-	-	-	-	-	16.28	17.23
CA_[2A]-[2A]-13A-[66A]-[66A]	LTE B66	5	131997	1712.5	64QAM	1	12	66461	2112.5	4x4	LTE B66	20	67236	2190	4x4	LTE B2	20	900	1960	4x4	LTE B2	20	700	1940	4x4	LTE B13	10	5230	751	2x2	-	-	-	-	-	16.30	17.23
CA_[2A]-[2A]-14A-[30A]-[66A]	LTE B66	5	131997	1712.5	64QAM	1	12	66461	2112.5	4x4	LTE B2	20	900	1960	4x4	LTE B2	20	700	1940	4x4	LTE B14	10	5330	763	2x2	LTE B30	10	9820	2355	4x4	-	-	-	-	-	16.39	17.23
CA_[2A]-[2A]-14A-[66A]-[66A]	LTE B66	5	131997	1712.5	64QAM	1	12	66461	2112.5	4x4	LTE B66	20	67236	2190	4x4	LTE B2	20	900	1960	4x4	LTE B2	20	700	1940	4x4	LTE B14	10	5330	763	2x2	-	-	-	-	-	16.34	17.23
CA_[2A]-[2A]-29A-[30A]-[66A]	LTE B66	5	131997	1712.5	64QAM	1	12	66461	2112.5	4x4	LTE B2	20	900	1960	4x4	LTE B2	20	700	1940	4x4	LTE B29	10	9715	722.5	2x2	LTE B30	10	9820	2355	4x4	-	-	-	-	-	16.36	17.23
CA_[2A]-[2A]-29A-[66A]-[66A]	LTE B66	5	131997	1712.5	64QAM	1	12	66461	2112.5	4x4	LTE B2	20	900	1960	4x4	LTE B2	20	700	1940	4x4	LTE B29	10	9715	722.5	2x2	LTE B66	20	66786	2145	4x4	-	-	-	-	-	16.37	17.23
CA_[2A]-5A-[7A]-[7A]-[66A]	LTE B66	5	131997	1712.5	64QAM	1	12	66461	2112.5	4x4	LTE B2	20	900	1960	4x4	LTE B5	10	2525	881.5	2x2	LTE B7	20	3100	2655	4x4	LTE B7	20	2850	2630	4x4	-	-	-	-	-	16.41	17.23
CA_[2A]-5A-[30A]-[66A]-[66A]	LTE B66	5	131997	1712.5	64QAM	1	12	66461	2112.5	4x4	LTE B66	20	67236	2190	4x4	LTE B2	20	900	1960	4x4	LTE B5	10	2525	881.5	2x2	LTE B30	10	9820	2355	4x4	-	-	-	-	-	16.35	17.23
CA_[2A]-5A-[48A]-[66A]-[66A]	LTE B66	5	131997	1712.5	64QAM	1	12	66461	2112.5	4x4	LTE B66	20	67236	2190	4x4	LTE B2	20	900	1960	4x4	LTE B5	10	2525	881.5	2x2	LTE B48	20	55990	3625	4x4	-	-	-	-	-	16.39	17.23
CA_[2A]-[7A]-[7A]-13A-[66A]	LTE B66	5	131997	1712.5	64QAM	1	12	66461	2112.5	4x4	LTE B13	10	5230	751	2x2	LTE B2	20	900	1960	4x4	LTE B7	20	3100	2655	4x4	LTE B7	20	2850	2630	4x4	-	-	-	-	-	16.33	17.23
CA_[2A]-[7A]-[7A]-[66A]-[66A]	LTE B66	5	131997	1712.5	64QAM	1	12	66461	2112.5	4x4	LTE B66	20	67236	2190	4x4	LTE B2	20	900	1960	4x4	LTE B7	20	3100	2655	4x4	LTE B7	20	2850	2630	4x4	-	-	-	-	-	16.38	17.23
CA_[2A]-[7C]-[66A]-[66A]	LTE B66	5	131997	1712.5	64QAM	1	12	66461	2112.5	4x4	LTE B66	20	67236	2190	4x4	LTE B2	20	900	1960	4x4	LTE B7	20	3100	2655	4x4	LTE B7	20	2902	2635.2	4x4	-	-	-	-	-	16.51	17.23
CA_[2A]-12A-[30A]-[66A]-[66A]	LTE B66	5	131997	1712.5	64QAM	1	12	66461	2112.5	4x4	LTE B66	20	67236	2190	4x4	LTE B2	20	900	1960	4x4	LTE B12	10	5095	737.5	2x2	LTE B30	10	9820	2355	4x4	-	-	-	-	-	16.36	17.23
CA_[2A]-14A-[30A]-[66A]-[66A]	LTE B66	5	131997	1712.5	64QAM	1	12	66461	2112.5	4x4	LTE B66	20	67236	2190	4x4	LTE B2	20	900	1960	4x4	LTE B14	10	5330	763	2x2	LTE B30	10	9820	2355	4x4	-	-	-	-	-	16.38	17.23
CA_[2A]-[48C]-[66A]-[66A]	LTE B66	5	131997	1712.5	64QAM	1	12	66461	2112.5	4x4	LTE B66	20	67236	2190	4x4	LTE B2	20	900	1960	4x4	LTE B48	20	55990	3625	2x2	LTE B48	20	56188	3644.8	2x2	-	-	-	-	-	16.43	17.23
CA_[2A]-[48D]-[66A]	LTE B66	5	131997	1712.5	64QAM	1	12	66461	2112.5	4x4	LTE B2	20	900	1960	4x4	LTE B48	20	55990	3625	4x4	LTE B48	20	56188	3644.8	4x4	LTE B48	20	56386	3664.6	4x4	-	-	-	-	-	16.33	17.23
CA_5A-[7C]-[66A]-[66A]	LTE B66	5	131997	1712.5	64QAM	1	12	66461	2112.5	4x4	LTE B66	20	67236	2190	4x4	LTE B5	10	2525	881.5	2x2	LTE B7	20	3100	2655	4x4	LTE B7	20	2902	2635.2	4x4	-	-	-	-	-	16.47	17.23
CA_5A-[48C]-[66A]-[66A]	LTE B66	5	131997	1712.5	64QAM	1	12	66461	2112.5	4x4	LTE B66	20	67236	2190	4x4	LTE B5	10	2525	881.5	2x2	LTE B48	20	55990	3625	4x4	LTE B48	20	56188	3644.8	4x4	-	-	-	-	-	16.44	17.23
CA_13A-[48D]-[66A]	LTE B66	5	131997	1712.5	64QAM	1	12	66461	2112.5	4x4	LTE B13	10	5230	751	2x2	LTE B48	20	55990	3625	4x4	LTE B48	20	56188	3644.8	4x4	LTE B48	20	56386	3664.6	4x4	-	-	-	-	-	16.41	17.23
CA_[2A]-48E-[66A]	LTE B66	5	131997	1712.5	64QAM	1	12	66461	2112.5	4x4	LTE B2	20	900	1960	4x4	LTE B48	20	55990	3625	2x2	LTE B48	20	56188	3644.8	2x2	LTE B48	20	56386	3664.6	2x2	LTE B48	20	55792	3605.2	2x2	16.66	17.23

G.3.9 LTE Band 25 as PCC

Table G-25
Maximum Output Powers

	PCC										SCC 1					SCC 2					SCC 3					SCC 4					Power	
Combination	PCC Band	PCC BW [MHz]	PCC (UL) Ch.	PCC (UL) Freq. [MHz]	Mod.	PCC UL# RB	PCC UL RB Offset	PCC (DL) Ch.	PCC (DL) Freq. [MHz]	DL Ant. Config.	SCC Band	SCC BW [MHz]	SCC (DL) Ch.	SCC (DL) Freq. [MHz]	DL Ant. Config.	SCC Band	SCC BW [MHz]	SCC (DL) Ch.	SCC (DL) Freq. [MHz]	DL Ant. Config.	SCC Band	SCC BW [MHz]	SCC (DL) Ch.	SCC (DL) Freq. [MHz]	DL Ant. Config.	SCC Band	SCC BW [MHz]	SCC (DL) Ch.	SCC (DL) Freq. [MHz]	DL Ant. Config.	LTE Tx.Power with DL CA Enabled (dBm)	LTE Single Carrier Tx Power (dBm)
CA_5A-[25A]	LTE B25	20	26365	1882.5	64QAM	1	50	8365	1962.5	4x4	LTE B5	10	2525	881.5	2x2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	14.03	14.94
CA_12A-[25A]	LTE B25	20	26365	1882.5	64QAM	1	50	8365	1962.5	4x4	LTE B12	10	5095	737.5	2x2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	14.15	14.94
CA_[25A]-26A	LTE B25	20	26365	1882.5	64QAM	1	50	8365	1962.5	4x4	LTE B26	15	8865	876.5	2x2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	14.08	14.94
CA_[25A]-[25A]-26A	LTE B25	20	26365	1882.5	64QAM	1	50	8365	1962.5	4x4	LTE B25	20	8140	1940	4x4	LTE B26	5	8865	876.5	2x2	-	-	-	-	-	-	-	-	-	-	14.14	14.94
CA_[25A]-[25A]-[41A]	LTE B25	20	26365	1882.5	64QAM	1	50	8365	1962.5	4x4	LTE B25	20	8140	1940	4x4	LTE B41	20	40620	2593	4x4	-	-	-	-	-	-	-	-	-	-	14.04	14.94
CA_[25A]-[41C]	LTE B25	20	26365	1882.5	64QAM	1	50	8365	1962.5	4x4	LTE B41	20	40620	2593	4x4	LTE B41	20	40422	2573.2	4x4	-	-	-	-	-	-	-	-	-	-	14.78	14.94
CA_[7A]-[7A]-[25A]-[66A]	LTE B25	20	26365	1882.5	64QAM	1	50	8365	1962.5	4x4	LTE B7	20	3100	2655	4x4	LTE B7	20	2850	2630	4x4	LTE B66	20	67236	2190	4x4	-	-	-	-	-	14.01	14.94
CA_[25A]-[25A]-[41C]	LTE B25	20	26365	1882.5	64QAM	1	50	8365	1962.5	4x4	LTE B25	20	8590	1985	4x4	LTE B41	20	40620	2593	4x4	LTE B41	20	40422	2573.2	4x4	-	-	-	-	-	14.03	14.94
CA_[25A]-[25A]-[41D]	LTE B25	20	26365	1882.5	64QAM	1	50	8365	1962.5	4x4	LTE B25	20	8590	1985	4x4	LTE B41	20	40422	2573.2	4x4	LTE B41	20	40620	2593	4x4	LTE B41	20	40818	2612.8	4x4	13.96	14.94

G.3.10 LTE Band 30 as PCC

Table G-26
Maximum Output Powers

	PCC										SCC 1					SCC 2					SCC 3					SCC 4					Power	
Combination	PCC Band	PCC BW [MHz]	PCC (UL) Ch.	PCC (UL) Freq. [MHz]	Mod.	PCC UL# RB	PCC UL RB Offset	PCC (DL) Ch.	PCC (DL) Freq. [MHz]	DL Ant. Config.	SCC Band	SCC BW [MHz]	SCC (DL) Ch.	SCC (DL) Freq. [MHz]	DL Ant. Config.	SCC Band	SCC BW [MHz]	SCC (DL) Ch.	SCC (DL) Freq. [MHz]	DL Ant. Config.	SCC Band	SCC BW [MHz]	SCC (DL) Ch.	SCC (DL) Freq. [MHz]	DL Ant. Config.	SCC Band	SCC BW [MHz]	SCC (DL) Ch.	SCC (DL) Freq. [MHz]	DL Ant. Config.	LTE Tx.Power with DL CA Enabled (dBm)	LTE Single Carrier Tx Power (dBm)
CA_[2C]-[30A]	LTE B30	10	27710	2310	QPSK	1	25	9820	2355	4x4	LTE B2	20	900	1960	4x4	LTE B2	20	702	1940.2	4x4	-	-	-	-	-	-	-	-	-	-	14.43	14.41
CA_5B-[30A]	LTE B30	10	27710	2310	QPSK	1	25	9820	2355	4x4	LTE B5	10	2525	881.5	2x2	LTE B5	5	2453	874.3	2x2	-	-	-	-	-	-	-	-	-	-	14.55	14.41
9A-[30A]-[66A]-[66A]	LTE B30	10	27710	2310	QPSK	1	25	9820	2355	4x4	LTE B29	10	9715	722.5	2x2	LTE B66	20	66786	2145	4x4	LTE B66	20	67236	2190	4x4	-	-	-	-	-	14.37	14.41
0A]-[66A]-[66A]-[66A]	LTE B30	10	27710	2310	QPSK	1	25	9820	2355	4x4	LTE B66	20	66936	2160	4x4	LTE B66	10	66786	2145	4x4	LTE B66	20	67236	2190	4x4	-	-	-	-	-	14.44	14.41
A]-[2A]-5A-[30A]-[66A]	LTE B30	10	27710	2310	QPSK	1	25	9820	2355	4x4	LTE B2	20	900	1960	4x4	LTE B2	20	700	1940	4x4	LTE B5	10	2525	881.5	2x2	LTE B66	20	66786	2145	4x4	14.49	14.41
]-[2A]-12A-[30A]-[66A]	LTE B30	10	27710	2310	QPSK	1	25	9820	2355	4x4	LTE B2	20	900	1960	4x4	LTE B2	20	700	1940	4x4	LTE B12	10	5095	737.5	2x2	LTE B66	20	66786	2145	4x4	14.47	14.41
]-[2A]-14A-[30A]-[66A]	LTE B30	10	27710	2310	QPSK	1	25	9820	2355	4x4	LTE B2	20	900	1960	4x4	LTE B2	20	700	1940	4x4	LTE B14	10	5330	763	2x2	LTE B66	20	66786	2145	4x4	14.52	14.41
]-[2A]-29A-[30A]-[66A]	LTE B30	10	27710	2310	QPSK	1	25	9820	2355	4x4	LTE B2	20	900	1960	4x4	LTE B29	10	9715	722.5	2x2	LTE B2	20	700	1940	4x4	LTE B66	20	66786	2145	4x4	14.49	14.41
]-5A-[30A]-[66A]-[66A]	LTE B30	10	27710	2310	QPSK	1	25	9820	2355	4x4	LTE B2	20	900	1960	4x4	LTE B5	10	2525	881.5	2x2	LTE B66	20	66786	2145	4x4	LTE B66	20	67236	2190	4x4	14.42	14.41
CA_[2A]-12A-[30A]-[66A]-[66A]	LTE B30	10	27710	2310	QPSK	1	25	9820	2355	4x4	LTE B2	20	900	1960	4x4	LTE B12	10	5095	737.5	2x2	LTE B66	20	66786	2145	4x4	LTE B66	20	67236	2190	4x4	14.43	14.41
CA_[2A]-14A-[30A]-[66A]-[66A]	LTE B30	10	27710	2310	QPSK	1	25	9820	2355	4x4	LTE B2	20	900	1960	4x4	LTE B14	10	5330	763	2x2	LTE B66	20	66786	2145	4x4	LTE B66	20	67236	2190	4x4	14.45	14.41

G.3.11 LTE Band 7 as PCC

Table G-27
Maximum Output Powers

	PCC										SCC 1					SCC 2					SCC 3					SCC 4					Power	
Combination	PCC Band	PCC BW [MHz]	PCC (UL) Ch.	PCC (UL) Freq. [MHz]	Mod.	PCC UL# RB	PCC UL RB Offset	PCC (DL) Ch.	PCC (DL) Freq. [MHz]	DL Ant. Config.	SCC Band	SCC BW [MHz]	SCC (DL) Ch.	SCC (DL) Freq. [MHz]	DL Ant. Config.	SCC Band	SCC BW [MHz]	SCC (DL) Ch.	SCC (DL) Freq. [MHz]	DL Ant. Config.	SCC Band	SCC BW [MHz]	SCC (DL) Ch.	SCC (DL) Freq. [MHz]	DL Ant. Config.	SCC Band	SCC BW [MHz]	SCC (DL) Ch.	SCC (DL) Freq. [MHz]	DL Ant. Config.	LTE Tx.Power with DL CA Enabled (dBm)	LTE Single Carrier Tx Power (dBm)
CA_5A-[7A]	LTE B7	10	20800	2505	64QAM	1	49	2800	2625	4x4	LTE B5	10	2525	881.5	2x2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	13.07	13.87
CA_[7A]-26A	LTE B7	5	21425	2567.5	256QAM	1	12	3425	2687.5	4x4	LTE B26	15	8865	876.5	2x2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	13.11	13.90
CA_[7A]-29A	LTE B7	5	21425	2567.5	256QAM	1	12	3425	2687.5	4x4	LTE B29	10	9715	722.5	2x2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	13.16	13.90
CA_[7B]	LTE B7	10	20800	2505	64QAM	1	49	2800	2625	4x4	LTE B7	20	2944	2639.4	4x4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	13.27	13.87
CA_[4A]-[4A]-[7A] (1)	LTE B7	5	21425	2567.5	256QAM	1	12	3425	2687.5	4x4	LTE B4	20	2175	2132.5	4x4	LTE B4	10	2350	2150	4x4	-	-	-	-	-	-	-	-	-	-	13.23	13.90
CA_[7A]-[7A]-26A	LTE B7	10	20800	2505	64QAM	1	49	2800	2625	4x4	LTE B7	20	3350	2680	4x4	LTE B26	15	8865	876.5	2x2	-	-	-	-	-	-	-	-	-	-	13.13	13.87
CA_[2A]-[4A]-[7A]-[7A]	LTE B7	5	21425	2567.5	256QAM	1	12	3425	2687.5	4x4	LTE B7	20	2850	2630	4x4	LTE B2	20	900	1960	4x4	LTE B4	20	2175	2132.5	4x4	-	-	-	-	-	13.14	13.90
CA_[2A]-[4A]-[7A]-12A	LTE B7	5	21425	2567.5	256QAM	1	12	3425	2687.5	4x4	LTE B2	20	900	1960	4x4	LTE B4	20	2175	2132.5	4x4	LTE B12	10	5095	737.5	2x2	-	-	-	-	-	13.32	13.90
CA_[2A]-[4A]-[7C]	LTE B7	10	20800	2505	64QAM	1	49	2800	2625	4x4	LTE B7	20	2944	2639.4	4x4	LTE B2	20	900	1960	4x4	LTE B4	20	2175	2132.5	4x4	-	-	-	-	-	12.95	13.87
CA_[2A]-5A-[7C]	LTE B7	10	20800	2505	64QAM	1	49	2800	2625	4x4	LTE B7	20	2944	2639.4	4x4	LTE B2	20	900	1960	4x4	LTE B5	10	2525	881.5	2x2	-	-	-	-	-	12.90	13.87
CA_[2A]-[7C]-13A	LTE B7	10	20800	2505	64QAM	1	49	2800	2625	4x4	LTE B7	20	2944	2639.4	4x4	LTE B2	20	900	1960	4x4	LTE B13	10	5230	751	2x2	-	-	-	-	-	12.88	13.87
CA_[2A]-[7C]-[66A]	LTE B7	10	20800	2505	64QAM	1	49	2800	2625	4x4	LTE B7	20	2944	2639.4	4x4	LTE B2	20	900	1960	4x4	LTE B66	20	66786	2145	4x4	-	-	-	-	-	12.90	13.87
CA_5A-[7A]-[66A]-[66A]	LTE B7	10	20800	2505	64QAM	1	49	2800	2625	4x4	LTE B5	10	2525	881.5	2x2	LTE B66	20	66786	2145	4x4	LTE B66	20	67236	2190	4x4	-	-	-	-	-	12.88	13.87
CA_[7A]-[7A]-[25A]-[66A]	LTE B7	5	21425	2567.5	256QAM	1	12	3425	2687.5	4x4	LTE B7	20	2850	2630	4x4	LTE B25	20	8365	1962.5	4x4	LTE B66	20	67236	2190	4x4	-	-	-	-	-	13.25	13.90
CA_[2A]-[2A]-[7A]-12A-[66A]	LTE B7	5	21425	2567.5	256QAM	1	12	3425	2687.5	4x4	LTE B2	20	900	1960	4x4	LTE B2	20	700	1940	4x4	LTE B12	10	5095	737.5	2x2	LTE B66	20	66786	2145	4x4	13.20	13.90
CA_[2A]-[2A]-[7A]-[66A]-[66A]	LTE B7	5	21425	2567.5	256QAM	1	12	3425	2687.5	4x4	LTE B2	20	900	1960	4x4	LTE B2	20	700	1940	4x4	LTE B66	20	67236	2190	4x4	LTE B66	20	66786	2145	4x4	13.31	13.90
CA_[2A]-5A-[7A]-[7A]-[66A]	LTE B7	5	21425	2567.5	256QAM	1	12	3425	2687.5	4x4	LTE B2	20	900	1960	4x4	LTE B5	10	2525	881.5	2x2	LTE B7	20	3100	2655	4x4	LTE B66	20	66786	2145	4x4	13.21	13.90
CA_[2A]-[7A]-[7A]-13A-[66A]	LTE B7	5	21425	2567.5	256QAM	1	12	3425	2687.5	4x4	LTE B7	20	2850	2630	4x4	LTE B2	20	900	1960	4x4	LTE B13	10	5230	751	2x2	LTE B66	20	67236	2190	4x4	13.17	13.90
CA_[2A]-[7A]-[7A]-[66A]-[66A]	LTE B7	5	21425	2567.5	256QAM	1	12	3425	2687.5	4x4	LTE B7	20	2850	2630	4x4	LTE B2	20	900	1960	4x4	LTE B66	20	66786	2145	4x4	LTE B66	20	67236	2190	4x4	13.19	13.90
CA_[2A]-[7C]-[66A]-[66A]	LTE B7	10	20800	2505	64QAM	1	49	2800	2625	4x4	LTE B7	20	2944	2639.4	4x4	LTE B2	20	900	1960	4x4	LTE B66	20	66786	2145	4x4	LTE B66	20	67236	2190	4x4	13.40	13.87
CA_5A-[7C]-[66A]-[66A]	LTE B7	10	20800	2505	64QAM	1	49	2800	2625	4x4	LTE B7	20	2944	2639.4	4x4	LTE B5	10	2525	881.5	2x2	LTE B66	20	66786	2145	4x4	LTE B66	20	67236	2190	4x4	13.37	13.87

G.3.12 LTE Band 41 as PCC

Table G-28
Maximum Output Powers

	PCC										SCC 1					SCC 2					SCC 3					SCC 4					SCC 5					SCC 6					Power	
Combination	PCC Band	PCC BW [MHz]	PCC (UL) Ch.	PCC (UL) Freq. [MHz]	Mod.	PCC UL# RB	PCC UL RB Offset	PCC (DL) Ch.	PCC (DL) Freq. [MHz]	DL Ant. Config.	SCC Band	SCC BW [MHz]	SCC (DL) Ch.	SCC (DL) Freq. [MHz]	DL Ant. Config.	SCC Band	SCC BW [MHz]	SCC (DL) Ch.	SCC (DL) Freq. [MHz]	DL Ant. Config.	SCC Band	SCC BW [MHz]	SCC (DL) Ch.	SCC (DL) Freq. [MHz]	DL Ant. Config.	SCC Band	SCC BW [MHz]	SCC (DL) Ch.	SCC (DL) Freq. [MHz]	DL Ant. Config.	SCC Band	SCC BW [MHz]	SCC (DL) Ch.	SCC (DL) Freq. [MHz]	DL Ant. Config.	SCC Band	SCC BW [MHz]	SCC (DL) Ch.	SCC (DL) Freq. [MHz]	DL Ant. Config.	LTE Tx.Power with DL CA Enabled (dBm)	LTE Single Carrier Tx Power (dBm)
CA_[41A]-[41A] (1)	LTE B41	20	41490	2680	QPSK	1	99	41490	2680	4x4	LTE B41	20	40340	2565	4x4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	13.93	13.95
CA_[41A]-[41C]	LTE B41	20	41490	2680	QPSK	1	99	41490	2680	4x4	LTE B41	20	39948	2525.8	2x2	LTE B41	20	39750	2506	2x2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	14.00	13.95
CA_[41C]-[41A]	LTE B41	20	41490	2680	QPSK	1	99	41490	2680	4x4	LTE B41	20	41292	2660.2	4x4	LTE B41	20	39750	2506	2x2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	13.97	13.95
CA_[41A]-[41D]	LTE B41	20	41490	2680	QPSK	1	99	41490	2680	4x4	LTE B41	20	40146	2545.6	2x2	LTE B41	20	39948	2525.8	2x2	LTE B41	20	39750	2506	2x2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	13.93	13.95
CA_[41D]-[41A]	LTE B41	20	41490	2680	QPSK	1	99	41490	2680	4x4	LTE B41	20	41292	2660.2	4x4	LTE B41	20	41094	2640.4	4x4	LTE B41	20	39750	2506	2x2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	14.00	13.95
CA_[41C]-[41C]	LTE B41	20	41490	2680	QPSK	1	99	41490	2680	4x4	LTE B41	20	41292	2660.2	4x4	LTE B41	20	39948	2525.8	2x2	LTE B41	20	39750	2506	2x2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	14.01	13.95
CA_[41E]	LTE B41	20	41490	2680	QPSK	1	99	41490	2680	4x4	LTE B41	20	41292	2660.2	4x4	LTE B41	20	41094	2640.4	4x4	LTE B41	20	40896	2620.6	4x4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	13.96	13.95
CA_[41C]-[41D]	LTE B41	20	41490	2680	QPSK	1	99	41490	2680	4x4	LTE B41	20	41292	2660.2	4x4	LTE B41	20	40146	2545.6	2x2	LTE B41	20	39948	2525.8	2x2	LTE B41	20	39750	2506	2x2	-	-	-	-	-	-	-	-	-	-	13.89	13.95
CA_[41D]-[41C]	LTE B41	20	41490	2680	QPSK	1	99	41490	2680	4x4	LTE B41	20	41292	2660.2	4x4	LTE B41	20	41094	2640.4	4x4	LTE B41	20	39948	2525.8	2x2	LTE B41	20	39750	2506	2x2	-	-	-	-	-	-	-	-	-	-	13.99	13.95

G.3.13 LTE Band 48 as PCC

Table G-29
Maximum Output Powers

	PCC										SCC 1						SCC 2					SCC 3					SCC 4					Power	
ombination	PCC Band	PCC BW [MHz]	PCC (UL) Ch.	PCC (UL) Freq. [MHz]	Mod.	PCC UL# RB	PCC UL RB Offset	PCC (DL) Ch.	PCC (DL) Freq. [MHz]	DL Ant. Config.	SCC Band	SCC BW [MHz]	SCC (DL) Ch.	SCC (DL) Freq. [MHz]	DL Ant. Config.	SCC Band	SCC BW [MHz]	SCC (DL) Ch.	SCC (DL) Freq. [MHz]	DL Ant. Config.	SCC Band	SCC BW [MHz]	SCC (DL) Ch.	SCC (DL) Freq. [MHz]	DL Ant. Config.	SCC Band	SCC BW [MHz]	SCC (DL) Ch.	SCC (DL) Freq. [MHz]	DL Ant. Config.	LTE Tx.Power with DL CA Enabled (dBm)	LTE Single Carrier Tx Power (dBm)
[48A]-[48A]	LTE B48	20	56207	3646.7	QPSK	50	25	56207	3646.7	4x4	LTE B48	20	55340	3560	4x4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	13.74	13.71
CA_[48B]	LTE B48	15	55765	3602.5	QPSK	36	37	55765	3602.5	4x4	LTE B48	5	55858	3611.8	4x4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	13.48	13.43
[48A]-[48C]	LTE B48	20	56207	3646.7	QPSK	50	25	56207	3646.7	4x4	LTE B48	20	55340	3560	2x2	LTE B48	20	55538	3579.8	2x2	-	-	-	-	-	-	-	-	-	-	-	13.79	13.71
[48C]-[48A]	LTE B48	20	56207	3646.7	QPSK	50	25	56207	3646.7	4x4	LTE B48	20	56009	3626.9	4x4	LTE B48	20	55340	3560	2x2	-	-	-	-	-	-	-	-	-	-	-	13.77	13.71
CA_[48D]	LTE B48	20	56207	3646.7	QPSK	50	25	56207	3646.7	4x4	LTE B48	20	56009	3626.9	4x4	LTE B48	20	55811	3607.1	4x4	-	-	-	-	-	-	-	-	-	-	-	13.96	13.71
CA_[48E]	LTE B48	20	56207	3646.7	QPSK	50	25	56207	3646.7	4x4	LTE B48	20	56009	3626.9	4x4	LTE B48	20	55811	3607.1	4x4	LTE B48	20	55613	3587.3	4x4	-	-	-	-	-	13.80	13.71

G.4 Additional Downlink Carrier Aggregation with Uplink Carrier Aggregation Enabled

This device supports uplink carrier aggregation (ULCA) with additional Carrier Aggregation configurations active in the downlink. Power measurements were performed with ULCA active and additional CA configurations active in the downlink for the configuration per Fall 2017 TCB Workshop Notes.

Per FCC Guidance, additional SAR measurements for these configurations were not required since their maximum output power was not more than 0.25 dB higher than the maximum output power for with only CA_7C, CA_41C, or CA_48C ULCA active.

G.4.1 Additional DL Carrier Aggregation RF Conducted Powers with Uplink Carrier Aggregation Enabled

Table G-30
Maximum Output Powers

	PCC									SCC 1								SCC 2				SCC 3				SCC 4				Power	
Combination	PCC Band	PCC BW [MHz]	PCC (UL) Ch.	PCC (UL) Freq. [MHz]	Mod.	PCC UL# RB	PCC UL RB Offset	PCC (DL) Channel	PCC (DL) Freq. [MHz]	SCC Band	SCC BW [MHz]	SCC (UL) Channel	SCC (UL) Freq. [MHz]	Mod	SCC UL# RB	SCC UL# RB Offset	SCC (DL) Channel	SCC (DL) Freq [MHz]	SCC Band	SCC BW [MHz]	SCC (UL) Channel	SCC (DL) Freq. [MHz]	SCC Band	SCC BW [MHz]	SCC (UL) Channel	SCC (DL) Freq. [MHz]	SCC Band	SCC BW [MHz]	SCC (DL) Channel	SCC (DL) Freq. [MHz]	ULCA Tx.Power with DL CA Enabled (dBm)	ULCA Tx Power (dBm)
CA_41C-41A	LTE B41	20	40620	2593	QPSK	50	0	40620	2593	LTE B41	20	40422	2573.2	QPSK	50	50	40422	2573.2	LTE B41	20	39750	2506	-	-	-	-	-	-	-	-	15.20	15.21
CA_41D-41A	LTE B41	20	40620	2593	QPSK	50	0	40620	2593	LTE B41	20	40422	2573.2	QPSK	50	50	40422	2573.2	LTE B41	20	40224	2553.4	LTE B41	20	39750	2506	-	-	-	-	15.18	15.21
CA_41C-41C	LTE B41	20	40620	2593	QPSK	50	0	40620	2593	LTE B41	20	40422	2573.2	QPSK	50	50	40422	2573.2	LTE B41	20	39750	2506	LTE B41	20	39948	2525.8	-	-	-	-	15.24	15.21
CA_41E	LTE B41	20	40620	2593	QPSK	50	0	40620	2593	LTE B41	20	40422	2573.2	QPSK	50	50	40422	2573.2	LTE B41	20	40224	2553.4	LTE B41	20	40028	2533.6	-	-	-	-	15.22	15.21
CA_41C-41D	LTE B41	20	40620	2593	QPSK	50	0	40620	2593	LTE B41	20	40422	2573.2	QPSK	50	50	40422	2573.2	LTE B41	20	39750	2506	LTE B41	20	39948	2525.8	LTE B41	20	40146	2545.6	15.23	15.21
CA_41D-41C	LTE B41	20	40620	2593	QPSK	50	0	40620	2593	LTE B41	20	40422	2573.2	QPSK	50	50	40422	2573.2	LTE B41	20	40224	2553.4	LTE B41	20	39750	2506	LTE B41	20	39948	2525.8	15.18	15.21

Table G-31
Maximum Output Powers

	PCC									SCC 1								SCC 2				SCC 3				Power	
Combination	PCC Band	PCC BW [MHz]	PCC (UL) Ch.	PCC (UL) Freq. [MHz]	Mod.	PCC UL# RB	PCC UL RB Offset	PCC (DL) Ch.	PCC (DL) Freq. [MHz]	SCC Band	SCC BW [MHz]	SCC (UL) Ch.	SCC (UL) Freq. [MHz]	Mod	SCC UL # RB	SCC UL RB Offset	SCC (DL) Ch.	SCC (DL) Freq. [MHz]	SCC Band	SCC BW [MHz]	SCC (DL) Ch.	SCC (DL) Freq. [MHz]	SCC Band	SCC BW [MHz]	SCC (DL) Ch.	SCC (DL) Freq. [MHz]	ULCA Tx.Power with DL CA Enabled (dBm)	ULCA Tx Power (dBm)
CA_48D	LTE B48	20	56640	3690	QPSK	50	0	56640	3690	LTE B48	20	56442	3670.2	QPSK	50	50	56442	3670.2	LTE B48	20	56244	3650.4	-	-	-	-	13.55	13.58
CA_48E	LTE B48	20	56640	3690	QPSK	50	0	56640	3690	LTE B48	20	56442	3670.2	QPSK	50	50	56442	3670.2	LTE B48	20	56244	3650.4	LTE B48	20	56046	3630.6	13.57	13.58

G.4.2 Additional 4x4 MIMO DL Carrier Aggregation RF Conducted Powers with Uplink Carrier Aggregation Enabled

Note: 4x4 DL MIMO is only operating in the downlink. Uplink transmission is limited to a single output stream for each component carrier of ULCA.

Table G-32
Maximum Output Powers

	PCC										SCC 1										Power	
Combination	PCC Band	PCC BW [MHz]	PCC (UL) Ch.	PCC (UL) Freq. [MHz]	Mod.	PCC UL# RB	PCC UL RB Offset	PCC (DL) Ch.	PCC (DL) Freq. [MHz]	DL Ant. Config.	SCC Band	SCC BW [MHz]	SCC (UL) Ch.	SCC (UL) Freq. [MHz]	Mod	SCC UL # RB	SCC UL RB Offset	SCC (DL) Ch.	SCC (DL) Freq. [MHz]	DL Ant. Config.	ULCA Tx.Power with DL CA Enabled (dBm)	ULCA Tx Power (dBm)
CA_[7C]	LTE B7	20	21350	2560	QPSK	50	0	3350	2680	4x4	LTE B7	20	21152	2540.2	QPSK	50	50	3152	2660.2	4x4	13.44	13.43

Table G-33
Maximum Output Powers

	PCC										SCC 1										SCC 2					SCC 3					SCC 4					Power	
Combination	PCC Band	PCC BW [MHz]	PCC (UL) Ch.	PCC (UL) Freq. [MHz]	Mod.	PCC UL# RB	PCC UL RB Offset	PCC (DL) Ch.	PCC (DL) Freq. [MHz]	DL Ant. Config.	SCC Band	SCC BW [MHz]	SCC (UL) Ch.	SCC (UL) Freq. [MHz]	Mod	SCC UL # RB	SCC UL RB Offset	SCC (DL) Ch.	SCC (DL) Freq. [MHz]	DL Ant. Config.	SCC Band	SCC BW [MHz]	SCC (DL) Ch.	SCC (DL) Freq. [MHz]	DL Ant. Config.	SCC Band	SCC BW [MHz]	SCC (DL) Ch.	SCC (DL) Freq. [MHz]	DL Ant. Config.	SCC Band	SCC BW [MHz]	SCC (DL) Ch.	SCC (DL) Freq. [MHz]	DL Ant. Config.	ULCA Tx.Power with DL CA Enabled (dBm)	ULCA Tx Power (dBm)
CA_[41C]-[41A]	LTE B41	20	40620	2593	QPSK	0	0	40620	2593	4X4	LTE B41	20	40422	2573.2	QPSK	50	0	40422	2573.2	4x4	LTE B41	20	39750	2506	4x4	-	-	-	-	-	-	-	-	-	-	15.22	15.21
CA_[41D]-[41A]	LTE B41	20	40620	2593	QPSK	0	0	40620	2593	4x4	LTE B41	20	40422	2573.2	QPSK	50	0	40422	2573.2	4x4	LTE B41	20	40224	2553.4	4x4	LTE B41	20	39750	2506	4x4	-	-	-	-	-	15.26	15.21
CA_[41C]-[41C]	LTE B41	20	40620	2593	QPSK	0	0	40620	2593	4x4	LTE B41	20	40422	2573.2	QPSK	50	0	40422	2573.2	4x4	LTE B41	20	39750	2506	4x4	LTE B41	20	39948	2525.8	4x4	-	-	-	-	-	15.25	15.21
CA_[41E]	LTE B41	20	40620	2593	QPSK	0	0	40620	2593	4x4	LTE B41	20	40422	2573.2	QPSK	50	0	40422	2573.2	4x4	LTE B41	20	40224	2553.4	4x4	LTE B41	20	40026	2533.6	4x4	-	-	-	-	-	14.30	14.25
CA_[41C]-[41D]	LTE B41	20	40620	2593	QPSK	0	0	40620	2593	4x4	LTE B41	20	40422	2573.2	QPSK	50	0	40422	2573.2	4x4	LTE B41	20	39750	2506	4x4	LTE B41	20	39948	2525.8	4x4	LTE B41	20	41016	2632.6	4x4	15.21	15.21
CA_[41D]-[41C]	LTE B41	20	40620	2593	QPSK	0	0	40620	2593	4x4	LTE B41	20	40422	2573.2	QPSK	50	0	40422	2573.2	4x4	LTE B41	20	40224	2553.4	4x4	LTE B41	20	39750	2506	4X4	LTE B41	20	40818	2612.8	4X4	15.23	15.21

Table G-34
Maximum Output Powers

	PCC										SCC 1										SCC 2					SCC 3					Power	
Combination	PCC Band	PCC BW [MHz]	PCC (UL) Ch.	PCC (UL) Freq. [MHz]	Mod.	PCC UL# RB	PCC UL RB Offset	PCC (DL) Ch.	PCC (DL) Freq. [MHz]	DL Ant. Config.	SCC Band	SCC BW [MHz]	SCC (UL) Ch.	SCC (UL) Freq. [MHz]	Mod	SCC UL # RB	SCC UL RB Offset	SCC (DL) Ch.	SCC (DL) Freq. [MHz]	DL Ant. Config.	SCC Band	SCC BW [MHz]	SCC (DL) Ch.	SCC (DL) Freq. [MHz]	DL Ant. Config.	SCC Band	SCC BW [MHz]	SCC (DL) Ch.	SCC (DL) Freq. [MHz]	DL Ant. Config.	ULCA Tx.Power with DL CA Enabled (dBm)	ULCA Tx Power (dBm)
CA_[48C]	LTE B48	20	56640	3690	QPSK	50	0	56640	3690	4x4	LTE B48	20	56442	3670.2	QPSK	50	50	56442	3670.2	4x4	-	-	-	-	-	-	-	-	-	-	13.56	13.58
CA_[48D]	LTE B48	20	56640	3690	QPSK	50	0	56640	3690	4x4	LTE B48	20	56442	3670.2	QPSK	50	50	56442	3670.2	4x4	LTE B48	20	56244	3650.4	4x4	-	-	-	-	-	13.57	13.58
CA_[48E]	LTE B48	20	56640	3690	QPSK	50	0	56640	3690	4x4	LTE B48	20	56442	3670.2	QPSK	50	50	56442	3670.2	4x4	LTE B48	20	56244	3650.4	4x4	LTE B48	20	56046	3630.6	4x4	13.59	13.58

G.5 Downlink Carrier Aggregation with Inter-band Uplink Carrier Aggregation enabled

This device supports inter-band uplink carrier aggregation (ULCA) with additional Carrier Aggregation configurations active in the downlink. Power measurements were performed with inter-band ULCA active and additional CA configurations active in the downlink for the configuration per Fall 2017 TCB Workshop Notes.

Per FCC Guidance, additional SAR measurements for these configurations were not required since their maximum output power was not more than 0.25 dB higher than the maximum output power for with only ULCA active.

G.5.1 DL Carrier Aggregation RF Conducted Powers

Table G-35
Maximum Output Powers

		PCC									SCC 1								
	Combination	PCC Band	PCC BW [MHz]	PCC (UL) Ch.	PCC (UL) Freq. [MHz]	Modulation	PCC UL# RB	PCC UL RB Offset	PCC (DL) Ch.	PCC (DL) Freq. [MHz]	SCC Band	SCC BW [MHz]	SCC (UL) Ch.	SCC (UL) Freq. [MHz]	Modulation	SCC UL# RB	SCC UL RB Offset	SCC (DL) Channel	SCC (DL) Frequency [MHz]
CA_2A-2A-13A	CA_2A-2A-13A	LTE B13	10	23230	782	QPSK	1	25	5230	751	LTE B2	20	18900	1880	QPSK	1	50	900	1960
CA_2A-4A-12A	CA_2A-4A-12A	LTE B12	10	23095	707.5	QPSK	1	25	5095	737.5	LTE B4	20	20175	1732.5	QPSK	1	50	2175	2132.5
CA_2A-4A-13A	CA_2A-4A-13A	LTE B13	10	23230	782	QPSK	1	25	5230	751	LTE B4	20	20175	1732.5	QPSK	1	50	2175	2132.5
CA_2A-4A-13A	CA_2A-4A-13A	LTE B13	10	23230	782	QPSK	1	25	5230	751	LTE B2	20	18900	1880	QPSK	1	50	900	1960
CA_2A-12A-30A	CA_2A-12A-30A	LTE B12	10	23095	707.5	QPSK	1	25	5095	737.5	LTE B2	20	18900	1880	QPSK	1	50	900	1960
CA_2A-12A-66A	CA_2A-12A-66A	LTE B12	10	23095	707.5	QPSK	1	25	5095	737.5	LTE B66	20	132322	1745	QPSK	1	50	66786	2145
CA_2A-12A-66A	CA_2A-12A-66A	LTE B12	10	23095	707.5	QPSK	1	25	5095	737.5	LTE B2	20	18900	1880	QPSK	1	50	1	50
CA_2A-12A-66A	CA_2A-12A-66A	LTE B66	20	132322	1745	QPSK	1	50	66786	2145	LTE B12	10	23095	707.5	QPSK	1	25	5095	737.5
CA_2A-13A-66A	CA_2A-13A-66A	LTE B13	10	23230	782	QPSK	1	25	5230	751	LTE B2	20	18900	1880	QPSK	1	50	900	1960
CA_2A-13A-66A	CA_2A-13A-66A	LTE B66	20	132322	1745	QPSK	1	50	66786	2145	LTE B13	10	23230	782	QPSK	1	25	5230	751
CA_2A-13A-66A	CA_2A-13A-66A	LTE B13	10	23230	782	QPSK	1	25	5230	751	LTE B66	20	132322	1745	QPSK	1	50	66786	2145
CA_2A-4A-12A	CA_2A-4A-12A	LTE B12	10	23095	707.5	QPSK	1	25	5095	737.5	LTE B4	20	20175	1732.5	QPSK	1	50	2175	2132.5
CA_5A-7A-7A	CA_5A-7A-7A	LTE B5	10	20525	836.5	QPSK	1	25	2525	881.5	LTE B7	20	21100	2535	QPSK	1	50	3100	2655
CA_5A-66A-66A	CA_5A-66A-66A	LTE B5	10	20525	836.5	QPSK	1	25	2525	881.5	LTE B66	20	132322	1745	QPSK	1	50	66786	2145
CA_5A-66A-66A	CA_5A-66A-66A	LTE B66	20	132322	1745	QPSK	1	50	66786	2145	LTE B5	10	20525	836.5	QPSK	1	25	2525	881.5
CA_13A-66A-66A	CA_13A-66A-66A	LTE B13	10	23230	782	QPSK	1	25	5230	751	LTE B66	20	132322	1745	QPSK	1	50	66786	2145
CA_13A-66A-66A	CA_13A-66A-66A	LTE B66	20	132322	1745	QPSK	1	50	66786	2145	LTE B5	10	20525	836.5	QPSK	1	25	2525	881.5
CA_5A-7A-7A	CA_5A-7A-7A	LTE B7	20	21350	2560	QPSK	1	50	3350	2680	LTE B5	10	20525	836.5	QPSK	1	25	2525	881.5
CA_2A-2A-5A-66A-66A	CA_2A-2A-5A-66A-66A	LTE B5	10	20525	836.5	QPDK	1	25	2525	881.5	LTE B2	20	18900	1880	QPSK	1	50	900	1960
CA_2A-2A-14A-30A-66A	CA_2A-2A-14A-30A-66A	LTE B14	10	23330	793	QPSK	1	25	5330	793	LTE B2	20	18900	1880	QPSK	1	50	900	1960
CA_2A-2A-14A-30A-66A	CA_2A-2A-14A-30A-66A	LTE B14	10	23330	793	QPSK	1	25	5330	793	LTE B30	10	27710	2310	QPSK	1	25	9820	2355
CA_2A-2A-14A-30A-66A	CA_2A-2A-14A-30A-66A	LTE B14	10	23330	793	QPSK	1	25	5330	793	LTE B66	20	132322	1745	QPSK	1	50	66786	2145
CA_2A-2A-14A-30A-66A	CA_2A-2A-14A-30A-66A	LTE B30	10	27710	2310	QPSK	1	25	9820	2355	LTE B14	10	23330	793	QPSK	1	25	5330	793
CA_2A-2A-14A-30A-66A	CA_2A-2A-14A-30A-66A	LTE B66	20	132322	1745	QPSK	1	50	66786	2145	LTE B14	10	23330	793	QPSK	1	25	5330	793
CA_2A-2A-14A-66A-66A	CA_2A-2A-14A-66A-66A	LTE B14	10	23330	793	QPSK	1	25	5330	793	LTE B2	20	18900	1880	QPSK	1	50	900	1960
CA_2A-2A-14A-66A-66A	CA_2A-2A-14A-66A-66A	LTE B14	10	23330	793	QPSK	1	25	5330	793	LTE B66	20	132322	1745	QPSK	1	50	66786	2145
CA_2A-2A-14A-66A-66A	CA_2A-2A-14A-66A-66A	LTE B66	20	132322	1745	QPSK	1	50	66786	2145	LTE B14	10	23330	793	QPSK	1	25	5330	793
CA_2A-14A-30A-66A-66A	CA_2A-14A-30A-66A-66A	LTE B14	10	23330	793	QPSK	1	25	5330	793	LTE B2	20	18900	1880	QPSK	1	50	900	1960
CA_2A-14A-30A-66A-66A	CA_2A-14A-30A-66A-66A	LTE B14	10	23330	793	QPSK	1	25	5330	793	LTE B30	10	27710	2310	QPSK	1	25	9820	2355
CA_2A-14A-30A-66A-66A	CA_2A-14A-30A-66A-66A	LTE B14	10	23330	793	QPSK	1	25	5330	793	LTE B66	20	132322	1745	QPSK	1	50	66786	2145
CA_2A-14A-30A-66A-66A	CA_2A-14A-30A-66A-66A	LTE B30	10	27710	2310	QPSK	1	25	9820	2355	LTE B14	10	23330	793	QPSK	1	25	5330	793
CA_2A-14A-30A-66A-66A	CA_2A-14A-30A-66A-66A	LTE B66	20	132322	1745	QPSK	1	50	66786	2145	LTE B14	10	23330	793	QPSK	1	25	5330	793

	SCC 2				SCC 3				SCC 4				Antenna		Power					
															Interband ULCA Tx.Power with add'l DL CA active (dBm)		LTE Interband ULCA Tx Power (dBm)			
	SCC Band	SCC BW [MHz]	SCC (DL) Ch.	SCC (DL) Freq. [MHz]	SCC Band	SCC BW [MHz]	SCC (DL) Ch.	SCC (DL) Freq. [MHz]	SCC Band	SCC BW [MHz]	SCC (DL) Ch.	SCC (DL) Freq. [MHz]	PCC Ant	SCC Ant	PCC	SCC	PCC	PCC Target	SCC	SCC Target
CA_2A-2A-13A	LTE B2	20	700	1940	-	-	-	-	-	-	-	-	3	1	19.51	14.28	19.45	19.10	14.35	14.50
CA_2A-4A-12A	LTE B2	20	900	1960	-	-	-	-	-	-	-	-	1	3	19.53	16.99	19.60	19.00	16.92	16.40
CA_2A-4A-13A	LTE B2	20	900	1960	-	-	-	-	-	-	-	-	3	1	19.46	16.28	19.45	19.10	16.45	16.40
CA_2A-4A-13A	LTE B4	20	2175	2132.5	-	-	-	-	-	-	-	-	3	1	19.50	14.22	19.45	19.10	14.35	14.50
CA_2A-12A-30A	LTE B30	10	9820	2355	-	-	-	-	-	-	-	-	1	3	19.58	14.78	19.60	19.00	14.72	15.00
CA_2A-12A-66A	LTE B2	20	700	1940	-	-	-	-	-	-	-	-	1	3	19.51	16.86	19.60	19.00	16.92	16.40
CA_2A-12A-66A	LTE B66	20	66786	2145	-	-	-	-	-	-	-	-	1	3	19.61	14.73	19.60	19.00	14.72	15.00
CA_2A-12A-66A	LTE B2	20	900	1960	-	-	-	-	-	-	-	-	3	1	17.01	19.57	16.92	16.40	19.60	19.00
CA_2A-13A-66A	LTE B66	20	66786	2145	-	-	-	-	-	-	-	-	3	1	19.53	14.32	19.45	19.10	14.35	14.50
CA_2A-13A-66A	LTE B2	20	900	1960	-	-	-	-	-	-	-	-	3	1	16.96	20.34	16.92	16.40	20.33	20.50
CA_2A-13A-66A	LTE B2	20	900	1960	-	-	-	-	-	-	-	-	3	1	19.48	16.42	19.45	19.10	16.45	16.40
CA_2A-4A-12A	LTE B2	20	900	1940	-	-	-	-	-	-	-	-	1	3	19.53	16.99	19.60	19.00	16.92	16.40
CA_5A-7A-7A	LTE B7	20	2850	2630	-	-	-	-	-	-	-	-	3	1	18.69	13.40	18.63	18.80	13.51	12.60
CA_5A-66A-66A	LTE B66	20	67236	2190	-	-	-	-	-	-	-	-	3	1	18.68	16.53	18.63	18.80	16.45	16.40
CA_5A-66A-66A	LTE B66	20	67236	2190	-	-	-	-	-	-	-	-	3	1	16.98	19.00	16.92	16.40	19.02	18.60
CA_13A-66A-66A	LTE B66	20	67236	2190	-	-	-	-	-	-	-	-	3	1	19.51	16.44	19.45	19.10	16.45	16.40
CA_13A-66A-66A	LTE B66	20	67236	2190	-	-	-	-	-	-	-	-	3	1	16.98	19.00	16.92	16.40	19.02	18.60
CA_5A-7A-7A	LTE B7	20	2850	2630	-	-	-	-	-	-	-	-	1b	4	13.54	19.01	13.50	13.00	19.02	18.60
CA_2A-2A-5A-66A-66A	LTE B2	20	700	1940	LTE B66	20	66786	2145	LTE B66	20	67236	2190	3	1	18.71	14.38	18.63	18.80	14.35	14.50
CA_2A-2A-14A-30A-66A	LTE B2	20	700	1940	LTE B30	10	9820	2355	LTE B66	20	66786	2145	3	1	19.43	14.31	19.57	19.10	14.35	14.50
CA_2A-2A-14A-30A-66A	LTE B2	20	900	1960	LTE B2	20	700	1940	LTE B66	20	66786	2145	3	1	19.68	14.38	19.57	19.10	14.41	13.90
CA_2A-2A-14A-30A-66A	LTE B2	20	900	1960	LTE B2	20	700	1940	LTE B30	10	9820	2355	3	1	19.67	16.59	19.57	19.10	16.45	16.40
CA_2A-2A-14A-30A-66A	LTE B2	20	900	1960	LTE B2	20	700	1940	LTE B66	20	66786	2145	1	3	14.53	19.66	14.41	13.90	19.57	19.10
CA_2A-2A-14A-30A-66A	LTE B2	20	900	1960	LTE B2	20	700	1940	LTE B30	10	9820	2355	3	1	16.85	19.14	16.92	16.40	19.17	18.60
CA_2A-2A-14A-66A-66A	LTE B2	20	700	1940	LTE B66	20	66786	2145	LTE B66	20	67236	2190	3	1	19.44	14.34	19.57	19.10	14.35	14.50
CA_2A-2A-14A-66A-66A	LTE B2	20	900	1960	LTE B2	20	700	1940	LTE B66	20	67236	2190	3	1	19.64	16.49	19.57	19.10	16.45	16.40
CA_2A-2A-14A-66A-66A	LTE B2	20	900	1960	LTE B2	20	700	1940	LTE B66	20	67236	2190	3	1	16.83	19.15	16.92	16.40	19.17	18.60
CA_2A-14A-30A-66A-66A	LTE B30	10	9820	2355	LTE B66	20	66786	2145	LTE B66	20	67236	2190	3	1	19.54	14.38	19.57	19.10	14.35	14.50
CA_2A-14A-30A-66A-66A	LTE B2	20	900	1960	LTE B66	20	66786	2145	LTE B66	20	67236	2190	3	1	19.67	14.42	19.57	19.10	14.41	13.90
CA_2A-14A-30A-66A-66A	LTE B2	20	900	1960	LTE B30	10	9820	2355	LTE B66	20	67236	2190	3	1	19.61	16.56	19.57	19.10	16.45	16.40
CA_2A-14A-30A-66A-66A	LTE B2	20	900	1960	LTE B66	20	66786	2145	LTE B66	20	67236	2190	1	3	14.55	19.63	14.41	13.90	19.57	19.10
CA_2A-14A-30A-66A-66A	LTE B2	20	900	1960	LTE B30	10	9820	2355	LTE B66	20	67236	2190	3	1	16.86	19.17	16.92	16.40	19.17	18.60

G.5.2 DL Carrier Aggregation with DL 4x4 MIMO RF Conducted Powers

Note: 4x4 DL MIMO is only operating in the downlink. Uplink transmission is limited to a single output stream for each component carrier of ULCA.

Table G-36
Maximum Output Powers

		PCC										SCC 1									
	Combination	PCC Band	PCC Bandwidth [MHz]	PCC (UL) Channel	PCC (UL) Frequency [MHz]	Modulation	PCC UL# RB	PCC UL RB Offset	PCC (DL) Channel	PCC (DL) Frequency [MHz]	DL Ant. Config.	SCC Band	SCC Bandwidth [MHz]	SCC (UL) Ch.	SCC (UL) Freq. [MHz]	Modulation	SCC UL# RB	SCC UL RB Offset	SCC (DL) Channel	SCC (DL) Frequency [MHz]	DL Ant. Config.
CA_[4A]-5A	CA_[4A]-5A	LTE B5	10	20525	836.5	QPSK	1	25	2525	881.5	2x2	LTE B4	20	20175	1732.5	QPSK	1	50	2175	2132.5	4x4
CA_5A-[30A]	CA_5A-[30A]	LTE B5	10	20525	836.5	QPSK	1	25	2525	881.5	2x2	LTE B30	10	27710	2310	QPSK	1	25	9820	2355	4x4
CA_5A-[30A]	CA_5A-[30A]	LTE B30	10	27710	2310	QPSK	1	25	9820	2355	4x4	LTE B5	10	20525	836.5	QPSK	1	25	2525	881.5	2x2
CA_12A-[30A]	CA_12A-[30A]	LTE B12	10	23095	707.5	QPSK	1	25	5095	737.5	2x2	LTE B30	10	27710	2310	QPSK	1	25	9820	2355	4x4
CA_12A-[30A]	CA_12A-[30A]	LTE B30	10	27710	2310	QPSK	1	25	9820	2355	4x4	LTE B12	10	23095	707.5	QPSK	1	25	5095	737.5	2x2
CA_[2A]-[2A]-13A	CA_[2A]-[2A]-13A	LTE B13	10	23230	782	QPSK	1	25	5230	751	2x2	LTE B2	20	18900	1880	QPSK	1	50	900	1960	4x4
CA_[2A]-[4A]-12A	CA_[2A]-[4A]-12A	LTE B12	10	23095	707.5	QPSK	1	25	5095	737.5	2x2	LTE B4	20	20175	1732.5	QPSK	1	50	2175	2132.5	4x4
CA_[2A]-[4A]-13A	CA_[2A]-[4A]-13A	LTE B13	10	23230	782	QPSK	1	25	5230	751	2x2	LTE B2	20	18900	1880	QPSK	1	50	900	1960	4x4
CA_[2A]-[4A]-13A	CA_[2A]-[4A]-13A	LTE B13	10	23230	782	QPSK	1	25	5230	751	2x2	LTE B4	20	20175	1732.5	QPSK	1	50	2175	2132.5	4x4
CA_[2A]-12A-[30A]	CA_[2A]-12A-[30A]	LTE B12	10	23095	707.5	QPSK	1	25	5095	737.5	2x2	LTE B2	20	18900	1880	QPSK	1	50	900	1960	4x4
CA_[2A]-12A-[66A]	CA_[2A]-12A-[66A]	LTE B12	10	23095	707.5	QPSK	1	25	5095	737.5	4x4	LTE B66	20	132322	1745	QPSK	1	50	66786	2145	2x2
CA_[2A]-12A-[66A]	CA_[2A]-12A-[66A]	LTE B12	10	23095	707.5	QPSK	1	25	5095	737.5	2x2	LTE B2	20	18900	1880	QPSK	1	50	900	1960	4x4
CA_[2A]-12A-[66A]	CA_[2A]-12A-[66A]	LTE B66	20	132322	1745	QPSK	1	50	66786	2145	4x4	LTE B12	10	23095	707.5	QPSK	1	25	5095	737.5	4x4
CA_[2A]-13A-[66A]	CA_[2A]-13A-[66A]	LTE B13	10	23230	782	QPSK	1	25	5230	751	2x2	LTE B2	20	18900	1880	QPSK	1	50	900	1960	4x4
CA_[2A]-13A-[66A]	CA_[2A]-13A-[66A]	LTE B66	20	132322	1745	QPSK	1	50	66786	2145	4x4	LTE B13	10	23230	782	QPSK	1	25	5230	751	4x4
CA_5A-[7A]-[7A]	CA_5A-[7A]-[7A]	LTE B5	10	20525	836.5	QPSK	1	25	2525	881.5	2x2	LTE B7	20	20175	1732.5	QPSK	1	50	3100	2655	4x4
CA_5A-[7A]-[7A]	CA_5A-[7A]-[7A]	LTE B7	20	21350	2560	QPSK	1	50	3350	2680	4x4	LTE B5	10	20525	836.5	QPSK	1	25	2525	881.5	2x2
CA_5A-[66A]-[66A]	CA_5A-[66A]-[66A]	LTE B5	10	20525	836.5	QPSK	1	25	2525	881.5	2x2	LTE B66	20	21100	2535	QPSK	1	50	66786	2145	4x4
CA_5A-[66A]-[66A]	CA_5A-[66A]-[66A]	LTE B66	20	21100	1770	QPSK	1	50	3100	2655	4x4	LTE B5	10	20525	836.5	QPSK	1	25	2525	881.5	2x2
CA_13A-[66A]-[66A]	CA_13A-[66A]-[66A]	LTE B13	10	23230	782	QPSK	1	25	5230	751	2x2	LTE B66	20	132322	1745	QPSK	1	50	66786	2145	4x4
CA_13A-[66A]-[66A]	CA_13A-[66A]-[66A]	LTE B66	20	132322	1745	QPSK	1	50	66786	2145	4x4	LTE B13	10	23230	782	QPSK	1	25	5230	751	2x2
CA_[2A]-[2A]-5A-[66A]-[66A]	CA_[2A]-[2A]-5A-[66A]-[66A]	LTE B5	10	20525	836.5	QPSK	1	25	2525	881.5	2x2	LTE B2	20	18900	1880	QPSK	1	50	900	1960	4x4
CA_[2A]-[2A]-14A-[30A]-[66A]	CA_[2A]-[2A]-14A-[30A]-[66A]	LTE B14	10	23330	793	QPSK	1	25	5330	793	2x2	LTE B2	20	18900	1880	QPSK	1	50	900	1960	4x4
CA_[2A]-[2A]-14A-[30A]-[66A]	CA_[2A]-[2A]-14A-[30A]-[66A]	LTE B14	10	23330	793	QPSK	1	25	5330	793	2x2	LTE B30	10	27710	2310	QPSK	1	25	9820	2355	4x4
CA_[2A]-[2A]-14A-[30A]-[66A]	CA_[2A]-[2A]-14A-[30A]-[66A]	LTE B14	10	23330	793	QPSK	1	25	5330	793	2x2	LTE B66	20	132322	1745	QPSK	1	50	66786	2145	4x4
CA_[2A]-[2A]-14A-[30A]-[66A]	CA_[2A]-[2A]-14A-[30A]-[66A]	LTE B30	10	27710	2310	QPSK	1	25	9820	2355	4x4	LTE B14	10	23330	793	QPSK	1	25	5330	793	2x2
CA_[2A]-[2A]-14A-[30A]-[66A]	CA_[2A]-[2A]-14A-[30A]-[66A]	LTE B66	20	132322	1745	QPSK	1	50	66786	2145	4x4	LTE B14	10	23330	793	QPSK	1	25	5330	793	2x2
CA_[2A]-[2A]-14A-[66A]-[66A]	CA_[2A]-[2A]-14A-[66A]-[66A]	LTE B14	10	23330	793	QPSK	1	25	5330	793	2x2	LTE B2	20	18900	1880	QPSK	1	50	900	1960	4x4
CA_[2A]-[2A]-14A-[66A]-[66A]	CA_[2A]-[2A]-14A-[66A]-[66A]	LTE B14	10	23330	793	QPSK	1	25	5330	793	2x2	LTE B66	20	132322	1745	QPSK	1	50	66786	2145	4x4
CA_[2A]-[2A]-14A-[66A]-[66A]	CA_[2A]-[2A]-14A-[66A]-[66A]	LTE B66	20	132322	1745	QPSK	1	50	66786	2145	4x4	LTE B14	10	23330	793	QPSK	1	25	5330	793	2x2
CA_[2A]-14A-[30A]-[66A]-[66A]	CA_[2A]-14A-[30A]-[66A]-[66A]	LTE B14	10	23330	793	QPSK	1	25	5330	793	2x2	LTE B2	20	18900	1880	QPSK	1	50	900	1960	4x4
CA_[2A]-14A-[30A]-[66A]-[66A]	CA_[2A]-14A-[30A]-[66A]-[66A]	LTE B14	10	23330	793	QPSK	1	25	5330	793	2x2	LTE B30	10	27710	2310	QPSK	1	25	9820	2355	4x4
CA_[2A]-14A-[30A]-[66A]-[66A]	CA_[2A]-14A-[30A]-[66A]-[66A]	LTE B14	10	23330	793	QPSK	1	25	5330	793	2x2	LTE B66	20	132322	1745	QPSK	1	50	66786	2145	4x4
CA_[2A]-14A-[30A]-[66A]-[66A]	CA_[2A]-14A-[30A]-[66A]-[66A]	LTE B30	10	27710	2310	QPSK	1	25	9820	2355	4x4	LTE B14	10	23330	793	QPSK	1	25	5330	793	2x2
CA_[2A]-14A-[30A]-[66A]-[66A]	CA_[2A]-14A-[30A]-[66A]-[66A]	LTE B66	20	132322	1745	QPSK	1	50	66786	2145	4x4	LTE B14	10	23330	793	QPSK	1	25	5330	793	2x2

	SCC 2					SCC 3					SCC 4					Antenna		Power					
																		Interband ULCA Tx.Power with add'l DL CA active (dBm)		LTE Interband ULCA Tx Power (dBm)			
	SCC Band	SCC Bandwidth [MHz]	SCC (DL) Channel	SCC (DL) Frequency [MHz]	DL Ant. Config.	SCC Band	SCC Bandwidth [MHz]	SCC (DL) Channel	SCC (DL) Frequency [MHz]	DL Ant. Config.	SCC Band	SCC Bandwidth [MHz]	SCC (DL) Channel	SCC (DL) Frequency [MHz]	DL Ant. Config.	PCC Ant	SCC Ant	PCC	SCC	PCC	PCC Target	SCC	SCC Target
CA_[4A]-5A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3	1	18.63	16.45	18.63	18.80	16.45	16.40
CA_5A-[30A]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3	1	18.63	14.41	18.63	18.80	14.41	13.90
CA_5A-[30A]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	2	14.34	19.55	14.34	14.50	19.55	18.80
CA_12A-[30A]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	3	19.60	13.96	19.60	19.00	13.96	13.40
CA_12A-[30A]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	2	14.34	19.68	14.34	14.50	19.68	19.30
CA_[2A]-[2A]-13A	LTE B2	20	700	1940	4x4	-	-	-	-	-	-	-	-	-	-	3	1	19.49	14.23	19.45	19.10	14.35	14.50
CA_[2A]-[4A]-12A	LTE B2	20	900	1960	4x4	-	-	-	-	-	-	-	-	-	-	1	3	19.58	16.97	19.60	19.00	16.92	16.40
CA_[2A]-[4A]-13A	LTE B4	20	2175	2132.5	4x4	-	-	-	-	-	-	-	-	-	-	3	1	19.47	14.27	19.45	19.10	14.35	14.50
CA_[2A]-[4A]-13A	LTE B2	20	900	1960	4x4	-	-	-	-	-	-	-	-	-	-	3	1	19.48	16.42	19.45	19.10	16.45	16.40
CA_[2A]-12A-[30A]	LTE B30	10	9820	2355	4x4	-	-	-	-	-	-	-	-	-	-	1	3	19.56	14.67	19.60	19.00	14.72	15.00
CA_[2A]-12A-[66A]	LTE B2	20	900	1960	4x4	-	-	-	-	-	-	-	-	-	-	1	3	19.68	16.89	19.60	19.00	16.92	16.40
CA_[2A]-12A-[66A]	LTE B66	20	66786	2145	4x4	-	-	-	-	-	-	-	-	-	-	1	3	19.58	14.70	19.60	19.00	14.72	15.00
CA_[2A]-12A-[66A]	LTE B2	20	900	1960	2x2	-	-	-	-	-	-	-	-	-	-	3	1	16.97	19.58	16.92	16.40	19.60	19.00
CA_[2A]-13A-[66A]	LTE B66	20	66786	2145	4x4	-	-	-	-	-	-	-	-	-	-	3	1	19.46	14.30	19.45	19.10	14.35	14.50
CA_[2A]-13A-[66A]	LTE B2	20	900	1960	2x2	-	-	-	-	-	-	-	-	-	-	3	1	16.97	20.27	16.92	16.40	20.33	20.50
CA_5A-[7A]-[7A]	LTE B7	4x4	2850	2630	4x4	-	-	-	-	-	-	-	-	-	-	3	1	18.86	13.47	18.63	18.80	13.51	12.60
CA_5A-[7A]-[7A]	LTE B7	20	2850	2630	4x4	-	-	-	-	-	-	-	-	-	-	3	1	13.37	19.01	13.50	13.00	19.02	18.60
CA_5A-[66A]-[66A]	LTE B66	20	67236	2190	4x4	-	-	-	-	-	-	-	-	-	-	3	1	18.82	16.42	18.63	18.80	16.45	16.40
CA_5A-[66A]-[66A]	LTE B66	20	67236	2190	4x4	-	-	-	-	-	-	-	-	-	-	3	1	16.99	19.05	16.92	16.40	19.02	18.60
CA_13A-[66A]-[66A]	LTE B66	20	67236	2190	4x4	-	-	-	-	-	-	-	-	-	-	3	1	19.51	16.31	19.45	19.10	16.45	16.40
CA_13A-[66A]-[66A]	LTE B66	20	67236	2190	4x4	-	-	-	-	-	-	-	-	-	-	3	1	16.95	20.31	16.92	16.40	20.33	20.50
CA_[2A]-[2A]-5A-[66A]-[66A]	LTE B2	20	900	1960	4x4	LTE B66	20	66786	2145	4x4	LTE B66	20	67236	2190	4x4	3	1	18.54	14.32	18.63	18.80	14.35	14.50
CA_[2A]-[2A]-14A-[30A]-[66A]	LTE B2	20	700	1940	4x4	LTE B30	10	9820	2355	4x4	LTE B66	20	66786	2145	4x4	3	1	19.46	14.32	19.57	19.10	14.35	14.50
CA_[2A]-[2A]-14A-[30A]-[66A]	LTE B2	20	900	1960	4x4	LTE B2	20	700	1940	4x4	LTE B66	20	66786	2145	4x4	3	1	19.53	14.47	19.57	19.10	14.41	13.90
CA_[2A]-[2A]-14A-[30A]-[66A]	LTE B2	20	900	1960	4x4	LTE B2	20	700	1940	4x4	LTE B30	10	9820	2355	4x4	3	1	19.60	16.39	19.57	19.10	16.45	16.40
CA_[2A]-[2A]-14A-[30A]-[66A]	LTE B2	20	900	1960	4x4	LTE B2	20	700	1940	4x4	LTE B66	20	66786	2145	4x4	4	2	14.48	19.29	14.34	14.50	19.25	19.20
CA_[2A]-[2A]-14A-[30A]-[66A]	LTE B2	20	900	1960	4x4	LTE B2	20	700	1940	4x4	LTE B30	10	9820	2355	4x4	3	1	16.90	19.19	16.92	16.40	19.17	18.60
CA_[2A]-[2A]-14A-[66A]-[66A]	LTE B2	20	700	1940	4x4	LTE B66	20	66786	2145	4x4	LTE B66	20	67236	2190	4x4	3	1	19.47	14.31	19.57	19.10	14.35	14.50
CA_[2A]-[2A]-14A-[66A]-[66A]	LTE B2	20	900	1960	4x4	LTE B2	20	700	1940	4x4	LTE B66	20	67236	2190	4x4	3	1	19.49	16.59	19.57	19.10	16.45	16.40
CA_[2A]-[2A]-14A-[66A]-[66A]	LTE B2	20	900	1960	4x4	LTE B2	20	700	1940	4x4	LTE B66	20	67236	2190	4x4	3	1	16.96	19.15	16.92	16.40	19.17	18.60
CA_[2A]-14A-[30A]-[66A]-[66A]	LTE B30	10	9820	2355	4x4	LTE B66	20	66786	2145	4x4	LTE B66	20	67236	2190	4x4	3	1	19.48	14.29	19.57	19.10	14.35	14.50
CA_[2A]-14A-[30A]-[66A]-[66A]	LTE B2	20	900	1960	4x4	LTE B66	20	66786	2145	4x4	LTE B66	20	67236	2190	4x4	3	1	19.51	14.46	19.57	19.10	14.41	13.90
CA_[2A]-14A-[30A]-[66A]-[66A]	LTE B2	20	900	1960	4x4	LTE B30	10	9820	2355	4x4	LTE B66	20	67236	2190	4x4	3	1	19.55	16.56	19.57	19.10	16.45	16.40
CA_[2A]-14A-[30A]-[66A]-[66A]	LTE B2	20	900	1960	4x4	LTE B66	20	66786	2145	4x4	LTE B66	20	67236	2190	4x4	4	2	14.43	19.36	14.34	14.50	19.25	19.20
CA_[2A]-14A-[30A]-[66A]-[66A]	LTE B2	20	900	1960	4x4	LTE B30	10	9820	2355	4x4	LTE B66	20	67236	2190	4x4	3	1	16.94	19.22	16.92	16.40	19.17	18.60