

APPENDIX I: LTE DOWNLINK ONLY CARRIER AGGREGATION TEST REDUCTION METHODOLOGY

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 I-1 – Example of Exclusion Table for SISO Configurations

Index	BCC	Supported Channel Bandwidth (MHz)				Restriction	Completely Covered by Measurement Superset
		CC1	CC2	CC3	CC4		
CC1	CA_2A	5, 10, 15, 20	5, 10, 15, 20				Yes
CC2	CA_2A-2A	5, 10, 15, 20	5, 10, 15, 20				Yes
CC3	CA_2A-2A-4A	5, 10, 15, 20	5, 10, 15, 20	5, 10, 15, 20			Yes
CC4	CA_2A-2A-4A-12A	5, 10, 15, 20	5, 10, 15, 20	5, 10, 15, 20	5, 10, 15, 20		Yes
CC5	CA_2A-2A-4A-12A-12A	5, 10, 15, 20	5, 10, 15, 20	5, 10, 15, 20	5, 10, 15, 20	5, 10, 15, 20	Yes
CC6	CA_2A-2A-4A-12A-12A-12A	5, 10, 15, 20	5, 10, 15, 20	5, 10, 15, 20	5, 10, 15, 20	5, 10, 15, 20	Yes
CC7	CA_2A-2A-4A-12A-12A-12A-12A	5, 10, 15, 20	5, 10, 15, 20	5, 10, 15, 20	5, 10, 15, 20	5, 10, 15, 20	Yes
CC8	CA_2A-2A-4A-12A-12A-12A-12A-12A	5, 10, 15, 20	5, 10, 15, 20	5, 10, 15, 20	5, 10, 15, 20	5, 10, 15, 20	Yes
CC9	CA_2A-2A-4A-12A-12A-12A-12A-12A-12A	5, 10, 15, 20	5, 10, 15, 20	5, 10, 15, 20	5, 10, 15, 20	5, 10, 15, 20	Yes
CC10	CA_2A-2A-4A-12A-12A-12A-12A-12A-12A-12A	5, 10, 15, 20	5, 10, 15, 20	5, 10, 15, 20	5, 10, 15, 20	5, 10, 15, 20	Yes
CC11	CA_2A-2A-4A-12A-12A-12A-12A-12A-12A-12A-12A	5, 10, 15, 20	5, 10, 15, 20	5, 10, 15, 20	5, 10, 15, 20	5, 10, 15, 20	Yes
CC12	CA_2A-2A-4A-12A-12A-12A-12A-12A-12A-12A-12A-12A	5, 10, 15, 20	5, 10, 15, 20	5, 10, 15, 20	5, 10, 15, 20	5, 10, 15, 20	Yes
CC13	CA_2A-2A-4A-12A-12A-12A-12A-12A-12A-12A-12A-12A-12A	5, 10, 15, 20	5, 10, 15, 20	5, 10, 15, 20	5, 10, 15, 20	5, 10, 15, 20	Yes
CC14	CA_2A-2A-4A-12A-12A-12A-12A-12A-12A-12A-12A-12A-12A-12A	5, 10, 15, 20	5, 10, 15, 20	5, 10, 15, 20	5, 10, 15, 20	5, 10, 15, 20	Yes
CC15	CA_2A-2A-4A-12A-12A-12A-12A-12A-12A-12A-12A-12A-12A-12A-12A	5, 10, 15, 20	5, 10, 15, 20	5, 10, 15, 20	5, 10, 15, 20	5, 10, 15, 20	Yes
CC16	CA_2A-2A-4A-12A-12A-12A-12A-12A-12A-12A-12A-12A-12A-12A-12A-12A	5, 10, 15, 20	5, 10, 15, 20	5, 10, 15, 20	5, 10, 15, 20	5, 10, 15, 20	Yes
CC17	CA_2A-2A-4A-12A-12A-12A-12A-12A-12A-12A-12A-12A-12A-12A-12A-12A-12A	5, 10, 15, 20	5, 10, 15, 20	5, 10, 15, 20	5, 10, 15, 20	5, 10, 15, 20	Yes
CC18	CA_2A-2A-4A-12A-12A-12A-12A-12A-12A-12A-12A-12A-12A-12A-12A-12A-12A-12A	5, 10, 15, 20	5, 10, 15, 20	5, 10, 15, 20	5, 10, 15, 20	5, 10, 15, 20	Yes
CC19	CA_2A-2A-4A-12A-12A-12A-12A-12A-12A-12A-12A-12A-12A-12A-12A-12A-12A-12A-12A	5, 10, 15, 20	5, 10, 15, 20	5, 10, 15, 20	5, 10, 15, 20	5, 10, 15, 20	Yes
CC20	CA_2A-2A-4A-12A-12A-12A-12A-12A-12A-12A-12A-12A-12A-12A-12A-12A-12A-12A-12A-12A	5, 10, 15, 20	5, 10, 15, 20	5, 10, 15, 20	5, 10, 15, 20	5, 10, 15, 20	Yes
CC21	CA_2A-2A-4A-12A-12A-12A-12A-12A-12A-12A-12A-12A-12A-12A-12A-12A-12A-12A-12A-12A-12A	5, 10, 15, 20	5, 10, 15, 20	5, 10, 15, 20	5, 10, 15, 20	5, 10, 15, 20	Yes
CC22	CA_2A-2A-4A-12A-12A-12A-12A-12A-12A-12A-12A-12A-12A-12A-12A-12A-12A-12A-12A-12A-12A-12A	5, 10, 15, 20	5, 10, 15, 20	5, 10, 15, 20	5, 10, 15, 20	5, 10, 15, 20	Yes
CC23	CA_2A-2A-4A-12A	5, 10, 15, 20	5, 10, 15, 20	5, 10, 15, 20	5, 10, 15, 20	5, 10, 15, 20	Yes
CC24	CA_2A-2A-4A-12A	5, 10, 15, 20	5, 10, 15, 20	5, 10, 15, 20	5, 10, 15, 20	5, 10, 15, 20	Yes
CC25	CA_2A-2A-4A-12A	5, 10, 15, 20	5, 10, 15, 20	5, 10, 15, 20	5, 10, 15, 20	5, 10, 15, 20	Yes
CC26	CA_2A-2A-4A-12A	5, 10, 15, 20	5, 10, 15, 20	5, 10, 15, 20	5, 10, 15, 20	5, 10, 15, 20	Yes
CC27	CA_2A-2A-4A-12A	5, 10, 15, 20	5, 10, 15, 20	5, 10, 15, 20	5, 10, 15, 20	5, 10, 15, 20	Yes
CC28	CA_2A-2A-4A-12A	5, 10, 15, 20	5, 10, 15, 20	5, 10, 15, 20	5, 10, 15, 20	5, 10, 15, 20	Yes
CC29	CA_2A-2A-4A-12A	5, 10, 15, 20	5, 10, 15, 20	5, 10, 15, 20	5, 10, 15, 20	5, 10, 15, 20	Yes
CC30	CA_2A-2A-4A-12A	5, 10, 15, 20	5, 10, 15, 20	5, 10, 15, 20	5, 10, 15, 20	5, 10, 15, 20	Yes
CC31	CA_2A-2A-4A-12A	5, 10, 15, 20	5, 10, 15, 20	5, 10, 15, 20	5, 10, 15, 20	5, 10, 15, 20	Yes
CC32	CA_2A-2A-4A-12A	5, 10, 15, 20	5, 10, 15, 20	5, 10, 15, 20	5, 10, 15, 20	5, 10, 15, 20	Yes
CC33	CA_2A-2A-4A-12A	5, 10, 15, 20	5, 10, 15, 20	5, 10, 15, 20	5, 10, 15, 20	5, 10, 15, 20	Yes
CC34	CA_2A-2A-4A-12A	5, 10, 15, 20	5, 10, 15, 20	5, 10, 15, 20	5, 10, 15, 20	5, 10, 15, 20	Yes
CC35	CA_2A-2A-4A-12A	5, 10, 15, 20	5, 10, 15, 20	5, 10, 15, 20	5, 10, 15, 20	5, 10, 15, 20	Yes
CC36	CA_2A-2A-4A-12A	5, 10, 15, 20	5, 10, 15, 20	5, 10, 15, 20	5, 10, 15, 20	5, 10, 15, 20	Yes
CC37	CA_2A-2A-4A-12A	5, 10, 15, 20	5, 10, 15, 20	5, 10, 15, 20	5, 10, 15, 20	5, 10, 15, 20	Yes
CC38	CA_2A-2A-4A-12A	5, 10, 15, 20	5, 10, 15, 20	5, 10, 15, 20	5, 10, 15, 20	5, 10, 15, 20	Yes
CC39	CA_2A-2A-4A-12A	5, 10, 15, 20	5, 10, 15, 20	5, 10, 15, 20	5, 10, 15, 20	5, 10, 15, 20	Yes
CC40	CA_2A-2A-4A-12A	5, 10, 15, 20	5, 10, 15, 20	5, 10, 15, 20	5, 10, 15, 20	5, 10, 15, 20	Yes
CC41	CA_2A-2A-4A-12A	5, 10, 15, 20	5, 10, 15, 20	5, 10, 15, 20	5, 10, 15, 20	5, 10, 15, 20	Yes
CC42	CA_2A-2A-4A-12A	5, 10, 15, 20	5, 10, 15, 20	5, 10, 15, 20	5, 10, 15, 20	5, 10, 15, 20	Yes
CC43	CA_2A-2A-4A-12A	5, 10, 15, 20	5, 10, 15, 20	5, 10, 15, 20	5, 10, 15, 20	5, 10, 15, 20	Yes
CC44	CA_2A-2A-4A-12A	5, 10, 15, 20	5, 10, 15, 20	5, 10, 15, 20	5, 10, 15, 20	5, 10, 15, 20	Yes
CC45	CA_2A-2A-4A-12A	5, 10, 15, 20	5, 10, 15, 20	5, 10, 15, 20	5, 10, 15, 20	5, 10, 15, 20	Yes
CC46	CA_2A-2A-4A-12A	5, 10, 15, 20	5, 10, 15, 20	5, 10, 15, 20	5, 10, 15, 20	5, 10, 15, 20	Yes
CC47	CA_2A-2A-4A-12A	5, 10, 15, 20	5, 10, 15, 20	5, 10, 15, 20	5, 10, 15, 20	5, 10, 15, 20	Yes
CC48	CA_2A-2A-4A-12A	5, 10, 15, 20	5, 10, 15, 20	5, 10, 15, 20	5, 10, 15, 20	5, 10, 15, 20	Yes
CC49	CA_2A-2A-4A-12A	5, 10, 15, 20	5, 10, 15, 20	5, 10, 15, 20	5, 10, 15, 20	5, 10, 15, 20	Yes
CC50	CA_2A-2A-4A-12A	5, 10, 15, 20	5, 10, 15, 20	5, 10, 15, 20	5, 10, 15, 20	5, 10, 15, 20	Yes
CC51	CA_2A-2A-4A-12A	5, 10, 15, 20	5, 10, 15, 20	5, 10, 15, 20	5, 10, 15, 20	5, 10, 15, 20	Yes
CC52	CA_2A-2A-4A-12A	5, 10, 15, 20	5, 10, 15, 20	5, 10, 15, 20	5, 10, 15, 20	5, 10, 15, 20	Yes
CC53	CA_2A-2A-4A-12A	5, 10, 15, 20	5, 10, 15, 20	5, 10, 15, 20	5, 10, 15, 20	5, 10, 15, 20	Yes
CC54	CA_2A-2A-4A-12A	5, 10, 15, 20	5, 10, 15, 20	5, 10, 15, 20	5, 10, 15, 20	5, 10, 15, 20	Yes

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.

This device supports LAA with downlink carrier aggregation only. It uses carrier aggregation in the downlink to combine LTE in the unlicensed spectrum (i.e. LTE Band 46) with LTE in the licensed band (served as PCC). All uplink communications and acknowledgements on the PCC remain identical to specifications when downlink carrier aggregation is inactive.

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 the RF Conducted Powers Section and LTE/NR Lower Bandwidth RF Conducted Power Appendix. 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.

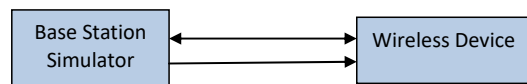


Figure I-1
DL CA Power Measurement Setup

FCC ID: A3LSMS911U	SAR EVALUATION REPORT	Approved by: Technical Manager
DUT Type: Portable Handset		APPENDIX I: Page 2 of 16

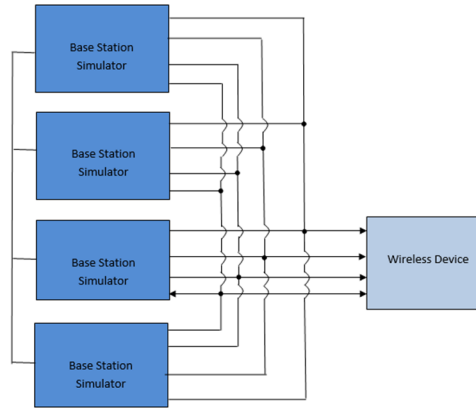


Figure I-2
DL CA with DL 4x4 MIMO Power Measurement Setup

I.2 Downlink Carrier Aggregation RF Conducted Powers

I.2.1 LTE Band 71 as PCC

Table I-3
Maximum Output Powers

Combination	PCC Band	PCC BW [MHz]	PCC (UL) Ch.	PCC (UL) Freq. [MHz]	Mod.	PCC				SCC 1				SCC 2				SCC 3				Power	
						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 4A-4A-71A	LTE B71	5	133147	665.5	QPSK	1	24	68611	619.5	LTE B4	20	2175	2132.5	LTE B4	10	2350	2150	-	-	-	-	24.90	24.98
CA 4B-4B-71A	LTE B71	5	133147	665.5	QPSK	1	24	68611	619.5	LTE B4B	20	55990	3625	LTE B4B	20	55640	3690	-	-	-	-	24.97	24.98
CA 4B-71A	LTE B71	5	133147	665.5	QPSK	1	24	68611	619.5	LTE B4B	20	55990	3625	LTE B4B	20	56188	3644.8	-	-	-	-	24.87	24.98
CA 2A-2A-4A-71A	LTE B71	5	133147	665.5	QPSK	1	24	68611	619.5	LTE B2	20	900	1960	LTE B2	20	700	1940	LTE B4	20	2175	2132.5	24.91	24.98
CA 2A-2A-6B-71A	LTE B71	5	133147	665.5	QPSK	1	24	68611	619.5	LTE B2	20	900	1960	LTE B2B	20	700	1940	LTE B2B	20	66786	2145	24.93	24.98
CA 2A-6B-6B-71A	LTE B71	5	133147	665.5	QPSK	1	24	68611	619.5	LTE B2	20	900	1960	LTE B2B	20	66786	2145	LTE B2B	20	67236	2190	24.92	24.98
CA 2A-6B-71A	LTE B71	5	133147	665.5	QPSK	1	24	68611	619.5	LTE B2	20	900	1960	LTE B2B	20	66786	2145	LTE B2B	20	66964	2164.8	24.87	24.98

I.2.2 LTE Band 12 as PCC

Table I-4
Maximum Output Powers

Combination	PCC Band	PCC BW [MHz]	PCC (UL) Ch.	PCC (UL) Freq. [MHz]	Mod.	PCC				SCC 1				SCC 2				SCC 3				Power	
						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	5	23035	701.5	QPSK	1	12	6035	731.5	LTE B2	20	900	1960	-	-	-	-	-	-	-	-	24.75	24.86
CA 4A-12A (1)	LTE B12	5	23035	701.5	QPSK	1	12	6035	731.5	LTE B4	20	2175	2132.5	-	-	-	-	-	-	-	-	24.78	24.86
CA 4A-12A (2)	LTE B12	5	23035	701.5	QPSK	1	12	6035	731.5	LTE B4	20	2175	2132.5	-	-	-	-	-	-	-	-	24.78	24.86
CA 12A-25A	LTE B12	5	23035	701.5	QPSK	1	12	6035	731.5	LTE B25	20	8365	1902.5	-	-	-	-	-	-	-	-	24.76	24.86
CA 12A-46A	LTE B12	5	23035	701.5	QPSK	1	12	6035	731.5	LTE B46	20	50665	5537.5	-	-	-	-	-	-	-	-	24.74	24.86
CA 12A-46A	LTE B12	5	23035	701.5	QPSK	1	12	6035	731.5	LTE B46	20	50665	5537.5	-	-	-	-	-	-	-	-	24.81	24.86
CA 12A-66A (1)	LTE B12	5	23035	701.5	QPSK	1	12	6035	731.5	LTE B66	20	66786	2145	-	-	-	-	-	-	-	-	24.78	24.86
CA 12A-66A (2)	LTE B12	5	23035	701.5	QPSK	1	12	6035	731.5	LTE B66	20	66786	2145	-	-	-	-	-	-	-	-	24.78	24.86
CA 12A-46C	LTE B12	5	23035	701.5	QPSK	1	12	6035	731.5	LTE B46	20	50665	5537.5	LTE B46	20	50467	5517.7	-	-	-	-	24.78	24.86
CA 12A-46C	LTE B12	5	23035	701.5	QPSK	1	12	6035	731.5	LTE B46	20	50665	5537.5	LTE B46	20	50467	5517.7	-	-	-	-	24.90	24.86
CA 2A-2A-4A-12A	LTE B12	5	23035	701.5	QPSK	1	12	6035	731.5	LTE B2	20	900	1960	LTE B4	20	2175	2132.5	-	-	-	-	24.75	24.86
CA 2A-4A-12A	LTE B12	5	23035	701.5	QPSK	1	12	6035	731.5	LTE B2	20	900	1960	LTE B4	20	2175	2132.5	-	-	-	-	24.77	24.86
CA 2A-12A-6B-12A	LTE B12	5	23035	701.5	QPSK	1	12	6035	731.5	LTE B2	20	900	1960	LTE B4	20	2175	2132.5	-	-	-	-	24.75	24.86
CA 4A-4A-12B	LTE B12	5	23035	701.5	QPSK	1	12	6035	731.5	LTE B12	10	5107	738.7	LTE B4	20	2175	2132.5	-	-	-	-	24.75	24.86
CA 12A-46C	LTE B12	5	23035	701.5	QPSK	1	12	6035	731.5	LTE B46	20	50665	5537.5	LTE B46	20	50467	5517.7	-	-	-	-	24.68	24.86
CA 12A-46C	LTE B12	5	23035	701.5	QPSK	1	12	6035	731.5	LTE B46	20	50665	5537.5	LTE B46	20	50467	5517.7	-	-	-	-	24.81	24.86
CA 2A-2A-12A-30A-66A	LTE B12	5	23035	701.5	QPSK	1	12	6035	731.5	LTE B2	20	900	1960	LTE B2	20	700	1940	LTE B2B	20	66786	2145	24.87	24.86
CA 2A-2A-12A-66A-66A	LTE B12	5	23035	701.5	QPSK	1	12	6035	731.5	LTE B2	20	900	1960	LTE B2	20	700	1940	LTE B2B	20	66786	2145	24.79	24.86
CA 2A-2A-12B-66A	LTE B12	5	23035	701.5	QPSK	1	12	6035	731.5	LTE B12	10	5107	738.7	LTE B2	20	900	1960	LTE B2B	20	66786	2145	24.80	24.86
CA 2A-12A-12A-66A-66A	LTE B12	5	23035	701.5	QPSK	1	12	6035	731.5	LTE B2	20	900	1960	LTE B2B	20	66786	2145	LTE B2B	20	67236	2190	24.81	24.86
CA 2A-12B-66A-66A	LTE B12	5	23035	701.5	QPSK	1	12	6035	731.5	LTE B12	10	5107	738.7	LTE B2	20	900	1960	LTE B2B	20	66786	2145	24.82	24.86
CA 12A-46C	LTE B12	5	23035	701.5	QPSK	1	12	6035	731.5	LTE B46	20	50665	5537.5	LTE B46	20	50467	5517.7	-	-	-	-	24.80	24.86

FCC ID: A3LSMS911U	SAR EVALUATION REPORT	Approved by: Technical Manager
DUT Type: Portable Handset		APPENDIX I: Page 3 of 16

I.2.3 LTE Band 13 as PCC

Table I-5
Maximum Output Powers

[illegible]

I.2.4 LTE Band 14 as PCC

Table I-6
Maximum Output Powers

Maximum Output Power																													
Combination	PC1										SEC 1				SEC 2				SEC 3				SEC 4				Power		
	PCB Band	PCB BW [MHz]	PCU [UL] Ch.	PCU [UL] Freq. [MHz]	Mod.	PCU UL RB	PCU UL RB Offset	PCU [DL] Channel	PCU [DL] Freq. [MHz]	SEC Band	SEC BW [MHz]	SEC [DL] Channel	SEC [DL] Freq. [MHz]	SEC Band	SEC BW [MHz]	SEC [DL] Channel	SEC [DL] Freq. [MHz]	SEC Band	SEC BW [MHz]	SEC [DL] Channel	SEC [DL] Freq. [MHz]	SEC Band	SEC BW [MHz]	SEC [DL] Channel	SEC [DL] Freq. [MHz]	LTE Tx Power with CA Enabled (dbm)	LTE Single Carrier Power (dbm)		
CA_2A-2A-14A-50A-66A	LTE B14	5	23130	793	QPSK	1	12	5330	763	LTE B2	20	900	1960	LTE B2	20	700	1940	LTE B20	10	6676	2165	LTE B66	20	6676	2165	24.42	24.53		
CA_2A-2A-14A-66A-66A	LTE B14	5	23130	793	QPSK	1	12	5330	763	LTE B2	20	900	1960	LTE B2	20	700	1940	LTE B66	20	6676	2165	LTE B66	20	67236	2165	24.37	24.43		
CA_2A-2A-14A-66A-66A	LTE B14	5	23130	793	QPSK	1	12	5330	763	LTE B2	20	900	1960	LTE B20	10	9620	2165	LTE B66	20	6676	2165	LTE B66	20	67236	2165	24.26	24.53		

I.2.5 LTE Band 5 as PCC

Table I-7
Maximum Output Powers

[illegible]

I.2.6 LTE Band 66 as PCC

Table I-8
Maximum Output Powers

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) Ch.	SCC (UL) Freq. [MHz]	SCC Band	SCC BW [MHz]	SCC (DL) Channel	SCC (DL) Freq. [MHz]	SCC Band	SCC BW [MHz]	SCC (UL) Ch.	SCC (UL) Freq. [MHz]	SCC Band	SCC BW [MHz]	SCC (DL) Channel	SCC (DL) Freq. [MHz]	SCC Band	SCC BW [MHz]	SCC (UL) Ch.	SCC (UL) Freq. [MHz]	SCC Band	SCC BW [MHz]	SCC (DL) Channel	SCC (DL) Freq. [MHz]	SCC Band	SCC BW [MHz]	SCC (UL) Ch.	SCC (UL) Freq. [MHz]	SCC Band	SCC BW [MHz]	SCC (DL) Channel	SCC (DL) Freq. [MHz]	SCC Band	SCC BW [MHz]	SCC (UL) Ch.	SCC (UL) Freq. [MHz]	SCC Band	SCC BW [MHz]	SCC (DL) Channel	SCC (DL) Freq. [MHz]	SCC Band	SCC BW [MHz]	SCC (UL) Ch.	SCC (UL) Freq. [MHz]	SCC Band	SCC BW [MHz]	SCC (DL) Channel	SCC (DL) Freq. [MHz]	SCC Band	SCC BW [MHz]	SCC (UL) Ch.	SCC (UL) Freq. [MHz]	SCC Band	SCC BW [MHz]	SCC (DL) Channel	SCC (DL) Freq. [MHz]	SCC Band	SCC BW [MHz]	SCC (UL) Ch.	SCC (UL) Freq. [MHz]	SCC Band	SCC BW [MHz]	SCC (DL) Channel	SCC (DL) Freq. [MHz]	SCC Band	SCC BW [MHz]	SCC (UL) Ch.	SCC (UL) Freq. [MHz]	SCC Band	SCC BW [MHz]	SCC (DL) Channel	SCC (DL) Freq. [MHz]	SCC Band	SCC BW [MHz]	SCC (UL) Ch.	SCC (UL) Freq. [MHz]	SCC Band	SCC BW [MHz]	SCC (DL) Channel	SCC (DL) Freq. [MHz]	SCC Band	SCC BW [MHz]	SCC (UL) Ch.	SCC (UL) Freq. [MHz]	SCC Band	SCC BW [MHz]	SCC (DL) Channel	SCC (DL) Freq. [MHz]	SCC Band	SCC BW [MHz]	SCC (UL) Ch.	SCC (UL) Freq. [MHz]	SCC Band	SCC BW [MHz]	SCC (DL) Channel	SCC (DL) Freq. [MHz]	SCC Band	SCC BW [MHz]	SCC (UL) Ch.	SCC (UL) Freq. [MHz]	SCC Band	SCC BW [MHz]	SCC (DL) Channel	SCC (DL) Freq. [MHz]	SCC Band	SCC BW [MHz]	SCC (UL) Ch.	SCC (UL) Freq. [MHz]	SCC Band	SCC BW [MHz]	SCC (DL) Channel	SCC (DL) Freq. [MHz]	SCC Band	SCC BW [MHz]	SCC (UL) Ch.	SCC (UL) Freq. [MHz]	SCC Band	SCC BW [MHz]	SCC (DL) Channel	SCC (DL) Freq. [MHz]	SCC Band	SCC BW [MHz]	SCC (UL) Ch.	SCC (UL) Freq. [MHz]	SCC Band	SCC BW [MHz]	SCC (DL) Channel	SCC (DL) Freq. [MHz]	SCC Band	SCC BW [MHz]	SCC (UL) Ch.	SCC (UL) Freq. [MHz]	SCC Band	SCC BW [MHz]	SCC (DL) Channel	SCC (DL) Freq. [MHz]	SCC Band	SCC BW [MHz]	SCC (UL) Ch.	SCC (UL) Freq. [MHz]	SCC Band	SCC BW [MHz]	SCC (DL) Channel	SCC (DL) Freq. [MHz]	SCC Band	SCC BW [MHz]	SCC (UL) Ch.	SCC (UL) Freq. [MHz]	SCC Band	SCC BW [MHz]	SCC (DL) Channel	SCC (DL) Freq. [MHz]	SCC Band	SCC BW [MHz]	SCC (UL) Ch.	SCC (UL) Freq. [MHz]	SCC Band	SCC BW [MHz]	SCC (DL) Channel	SCC (DL) Freq. [MHz]	SCC Band	SCC BW [MHz]	SCC (UL) Ch.	SCC (UL) Freq. [MHz]	SCC Band	SCC BW [MHz]	SCC (DL) Channel	SCC (DL) Freq. [MHz]	SCC Band	SCC BW [MHz]	SCC (UL) Ch.	SCC (UL) Freq. [MHz]	SCC Band	SCC BW [MHz]	SCC (DL) Channel	SCC (DL) Freq. [MHz]	SCC Band	SCC BW [MHz]	SCC (UL) Ch.	SCC (UL) Freq. [MHz]	SCC Band	SCC BW [MHz]	SCC (DL) Channel	SCC (DL) Freq. [MHz]	SCC Band	SCC BW [MHz]	SCC (UL) Ch.	SCC (UL) Freq. [MHz]	SCC Band	SCC BW [MHz]	SCC (DL) Channel	SCC (DL) Freq. [MHz]	SCC Band	SCC BW [MHz]	SCC (UL) Ch.	SCC (UL) Freq. [MHz]	SCC Band	SCC BW [MHz]	SCC (DL) Channel	SCC (DL) Freq. [MHz]	SCC Band	SCC BW [MHz]	SCC (UL) Ch.	SCC (UL) Freq. [MHz]	SCC Band	SCC BW [MHz]	SCC (DL) Channel	SCC (DL) Freq. [MHz]	SCC Band	SCC BW [MHz]	SCC (UL) Ch.	SCC (UL) Freq. [MHz]	SCC Band	SCC BW [MHz]	SCC (DL) Channel	SCC (DL) Freq. [MHz]	SCC Band	SCC BW [MHz]	SCC (UL) Ch.	SCC (UL) Freq. [MHz]	SCC Band	SCC BW [MHz]	SCC (DL) Channel	SCC (DL) Freq. [MHz]	SCC Band	SCC BW [MHz]	SCC (UL) Ch.	SCC (UL) Freq. [MHz]	SCC Band	SCC BW [MHz]	SCC (DL) Channel	SCC (DL) Freq. [MHz]	SCC Band	SCC BW [MHz]	SCC (UL) Ch.	SCC (UL) Freq. [MHz]	SCC Band	SCC BW [MHz]	SCC (DL) Channel	SCC (DL) Freq. [MHz]	SCC Band	SCC BW [MHz]	SCC (UL) Ch.	SCC (UL) Freq. [MHz]	SCC Band	SCC BW [MHz]	SCC (DL) Channel	SCC (DL) Freq. [MHz]	SCC Band	SCC BW [MHz]	SCC (UL) Ch.	SCC (UL) Freq. [MHz]	SCC Band	SCC BW [MHz]	SCC (DL) Channel	SCC (DL) Freq. [MHz]	SCC Band	SCC BW [MHz]	SCC (UL) Ch.	SCC (UL) Freq. [MHz]	SCC Band	SCC BW [MHz]	SCC (DL) Channel	SCC (DL) Freq. [MHz]	SCC Band	SCC BW [MHz]	SCC (UL) Ch.	SCC (UL) Freq. [MHz]	SCC Band	SCC BW [MHz]	SCC (DL) Channel	SCC (DL) Freq. [MHz]	SCC Band	SCC BW [MHz]	SCC (UL) Ch.	SCC (UL) Freq. [MHz]	SCC Band	SCC BW [MHz]	SCC (DL) Channel	SCC (DL) Freq. [MHz]	SCC Band	SCC BW [MHz]	SCC (UL) Ch.	SCC (UL) Freq. [MHz]	SCC Band	SCC BW [MHz]	SCC (DL) Channel	SCC (DL) Freq. [MHz]	SCC Band	SCC BW [MHz]	SCC (UL) Ch.	SCC (UL) Freq. [MHz]	SCC Band	SCC BW [MHz]	SCC (DL) Channel	SCC (DL) Freq. [MHz]	SCC Band	SCC BW [MHz]	SCC (UL) Ch.	SCC (UL) Freq. [MHz]	SCC Band	SCC BW [MHz]	SCC (DL) Channel	SCC (DL) Freq. [MHz]	SCC Band	SCC BW [MHz]	SCC (UL) Ch.	SCC (UL) Freq. [MHz]	SCC Band	SCC BW [MHz]	SCC (DL) Channel	SCC (DL) Freq. [MHz]	SCC Band	SCC BW [MHz]	SCC (UL) Ch.	SCC (UL) Freq. [MHz]	SCC Band	SCC BW [MHz]	SCC (DL) Channel	SCC (DL) Freq. [MHz]	SCC Band	SCC BW [MHz]	SCC (UL) Ch.	SCC (UL) Freq. [MHz]	SCC Band	SCC BW [MHz]	SCC (DL) Channel	SCC (DL) Freq. [MHz]	SCC Band	SCC BW [MHz]	SCC (UL) Ch.	SCC (UL) Freq. [MHz]	SCC Band	SCC BW [MHz]	SCC (DL) Channel	SCC (DL) Freq. [MHz]	SCC Band	SCC BW [MHz]	SCC (UL) Ch.	SCC (UL) Freq. [MHz]	SCC Band	SCC BW [MHz]	SCC (DL) Channel	SCC (DL) Freq. [MHz]	SCC Band	SCC BW [MHz]	SCC (UL) Ch.	SCC (UL) Freq. [MHz]	SCC Band	SCC BW [MHz]	SCC (DL) Channel	SCC (DL) Freq. [MHz]	SCC Band	SCC BW [MHz]	SCC (UL) Ch.	SCC (UL) Freq. [MHz]	SCC Band	SCC BW [MHz]	SCC (DL) Channel	SCC (DL) Freq. [MHz]	SCC Band	SCC BW [MHz]	SCC (UL) Ch.	SCC (UL) Freq. [MHz]	SCC Band	SCC BW [MHz]	SCC (DL) Channel	SCC (DL) Freq. [MHz]	SCC Band	SCC BW [MHz]	SCC (UL) Ch.	SCC (UL) Freq. [MHz]	SCC Band	SCC BW [MHz]	SCC (DL) Channel	SCC (DL) Freq. [MHz]	SCC Band	SCC BW [MHz]	SCC (UL) Ch.	SCC (UL) Freq. [MHz]	SCC Band	SCC BW [MHz]	SCC (DL) Channel	SCC (DL) Freq. [MHz]	SCC Band	SCC BW [MHz]	SCC (UL) Ch.	SCC (UL) Freq. [MHz]	SCC Band	SCC BW [MHz]	SCC (DL) Channel	SCC (DL) Freq. [MHz]	SCC Band	SCC BW [MHz]	SCC (UL) Ch.	SCC (UL) Freq. [MHz]	SCC Band	SCC BW [MHz]	SCC (DL) Channel	SCC (DL) Freq. [MHz]	SCC Band	SCC BW [MHz]	SCC (UL) Ch.	SCC (UL) Freq. [MHz]	SCC Band	SCC BW [MHz]	SCC (DL) Channel	SCC (DL) Freq. [MHz]	SCC Band	SCC BW [MHz]	SCC (UL) Ch.	SCC (UL) Freq. [MHz]	SCC Band	SCC BW [MHz]	SCC (DL) Channel	SCC (DL) Freq. [MHz]	SCC Band	SCC BW [MHz]	SCC (UL) Ch.	SCC (UL) Freq. [MHz]	SCC Band	SCC BW [MHz]	SCC (DL) Channel	SCC (DL) Freq. [MHz]	SCC Band	SCC BW [MHz]	SCC (UL) Ch.	SCC (UL) Freq. [MHz]	SCC Band	SCC BW [MHz]	SCC (DL) Channel	SCC (DL) Freq. [MHz]	SCC Band	SCC BW [MHz]	SCC (UL) Ch.	SCC (UL) Freq. [MHz]	SCC Band	SCC BW [MHz]	SCC (DL) Channel	SCC (DL) Freq. [MHz]	SCC Band	SCC BW [MHz]	SCC (UL) Ch.	SCC (UL) Freq. [MHz]	SCC Band	SCC BW [MHz]	SCC (DL) Channel	SCC (DL) Freq. [MHz]	SCC Band	SCC BW [MHz]	SCC (UL) Ch.	SCC (UL) Freq. [MHz]	SCC Band	SCC BW [MHz]	SCC (DL) Channel	SCC (DL) Freq. [MHz]	SCC Band	SCC BW [MHz]	SCC (UL) Ch.	SCC (UL) Freq. [MHz]	SCC Band	SCC BW [MHz]	SCC (DL) Channel	SCC (DL) Freq. [MHz]	SCC Band	SCC BW [MHz]	SCC (UL) Ch.	SCC (UL) Freq. [MHz]	SCC Band	SCC BW [MHz]	SCC (DL) Channel	SCC (DL) Freq. [MHz]	SCC Band	SCC BW [MHz]	SCC (UL) Ch.	SCC (UL) Freq. [MHz]	SCC Band	SCC BW [MHz]	SCC (DL) Channel	SCC (DL) Freq. [MHz]	SCC Band	SCC BW [MHz]	SCC (UL) Ch.	SCC (UL) Freq. [MHz]	SCC Band	SCC BW [MHz]	SCC (DL) Channel	SCC (DL) Freq. [MHz]	SCC Band	SCC BW [MHz]	SCC (UL) Ch.	SCC (UL) Freq. [MHz]	SCC Band	SCC BW [MHz]	SCC (DL) Channel	SCC (DL) Freq. [MHz]	SCC Band	SCC BW [MHz]	SCC (UL) Ch.	SCC (UL) Freq. [MHz]	SCC Band	SCC BW [MHz]	SCC (DL) Channel	SCC (DL) Freq. [MHz]	SCC Band	SCC BW [MHz]	SCC (UL) Ch.	SCC (UL) Freq. [MHz]	SCC Band	SCC BW [MHz]	SCC (DL) Channel	SCC (DL) Freq. [MHz]	SCC Band	SCC BW [MHz]	SCC (UL) Ch.	SCC (UL) Freq. [MHz]	SCC Band	SCC BW [MHz]	SCC (DL) Channel	SCC (DL) Freq. [MHz]	SCC Band	SCC BW [MHz]	SCC (UL) Ch.	SCC (UL) Freq. [MHz]	SCC Band	SCC BW [MHz]	SCC (DL) Channel	SCC (DL) Freq. [MHz]	SCC Band	SCC BW [MHz]	SCC (UL) Ch.	SCC (UL) Freq. [MHz]	SCC Band	SCC BW [MHz]	SCC (DL) Channel	SCC (DL) Freq. [MHz]	SCC Band
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I.2.9 LTE Band 41 as PCC

Table I-11
Maximum Output Powers

Combination	PCC Band	PCC BW [MHz]	PCC (UL) Ch.	PCC (UL) Freq. [MHz]	Mod.	PCC				SCC 1				SCC 2				Power	
						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]	LTE Tx Power with DL CA Enabled (dBm)	LTE Single Carrier Tx Power (dBm)
CA 41A-41A (1)	LTE B41	10	39750	2506	QPSK	1	25	39750	2506	LTE B41	20	41490	2680	-	-	-	-	23.85	23.88
CA 41A-41C	LTE B41	10	39750	2506	QPSK	1	25	39750	2506	LTE B41	20	41292	2680.2	LTE B41	20	41490	2680	23.82	23.88
CA 41C-41A	LTE B41	10	39750	2506	QPSK	1	25	39750	2506	LTE B41	20	39894	2520.4	LTE B41	20	41490	2680	23.85	23.88
CA 41D	LTE B41	10	39750	2506	QPSK	1	25	39750	2506	LTE B41	20	39894	2520.4	LTE B41	20	40092	2540.2	23.82	23.88

I.2.1 LTE Band 48 as PCC

Table I-12
Maximum Output Powers

Combination	PCC Band	PCC BW [MHz]	PCC (UL) Ch. Freq. [MHz]	Mod.	PCC UL RB	PCC UL RB Offset	PCC (DL) Channel	PCC (DL) Freq. [MHz]	SCC 1				SCC 2				SCC 3				SCC 4				LTE Tx Power with CA Enabled (dBm)	LTE Single Carrier Tx Power (dBm)
									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]		
CA 48A-48A	LTE B48	10	56223	3648.3	QPSK	25	0	56223	3648.3	LTE B48	20	55340	3590	-	-	-	-	-	-	-	-	-	-	21.43	21.40	
CA 48B	LTE B48	10	56223	3648.3	QPSK	25	0	56223	3648.3	LTE B48	10	56124	3638.4	-	-	-	-	-	-	-	-	-	-	21.36	21.40	
CA 48A-48C	LTE B48	10	56223	3648.3	QPSK	25	0	56223	3648.3	LTE B48	20	55340	3590	LTE B48	20	55538	3579.8	-	-	-	-	-	-	21.44	21.40	
CA 48C-48A	LTE B48	10	56223	3648.3	QPSK	25	0	56223	3648.3	LTE B48	20	55079	3633.9	LTE B48	20	55340	3590	-	-	-	-	-	-	21.42	21.40	
CA 48A-48D	LTE B48	10	56223	3648.3	QPSK	25	0	56223	3648.3	LTE B48	20	55340	3590	LTE B48	20	55538	3579.8	LTE B48	20	55736	3599.6	-	-	21.36	21.40	
CA 48B-48A	LTE B48	10	56223	3648.3	QPSK	25	0	56223	3648.3	LTE B48	20	55079	3633.9	LTE B48	20	55281	3614.1	LTE B48	20	55480	3600	-	-	21.37	21.40	
CA 48C-48C	LTE B48	10	56223	3648.3	QPSK	25	0	56223	3648.3	LTE B48	20	55079	3633.9	LTE B48	20	55340	3590	LTE B48	20	55538	3579.8	-	-	21.34	21.40	
CA 48E	LTE B48	10	56223	3648.3	QPSK	25	0	56223	3648.3	LTE B48	20	55079	3633.9	LTE B48	20	55281	3614.1	LTE B48	20	55583	3594.3	-	-	21.30	21.40	
CA 48C-48E	LTE B48	10	56223	3648.3	QPSK	25	0	56223	3648.3	LTE B48	20	55079	3633.9	LTE B48	20	55340	3590	LTE B48	20	55538	3579.8	-	-	21.31	21.40	
CA 48D-48C	LTE B48	10	56223	3648.3	QPSK	25	0	56223	3648.3	LTE B48	20	55079	3633.9	LTE B48	20	55281	3614.1	LTE B48	20	55480	3600	-	-	21.30	21.40	
CA 48F	LTE B48	10	56223	3648.3	QPSK	25	0	56223	3648.3	LTE B48	20	55079	3633.9	LTE B48	20	55281	3614.1	LTE B48	20	55483	3574.5	-	-	21.28	21.40	

I.3 DL CA 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 I.1 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.

I.3.1 LTE 4x4 MIMO DL Standalone Powers

Table I-13
Maximum Output Powers

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	10	132022	1715	QPSK	1	49	23.62	23.50	23.5
25	1.4	26047	1850.7	QPSK	3	2	23.53	23.63	23.5
30	5	27710	2310	QPSK	1	12	22.80	22.62	22.1
41	10	39750	2506	QPSK	1	25	24.04	23.88	24.0
48	10	56223	3648.3	QPSK	25	0	21.42	21.40	21.0

FCC ID: A3LSMS911U	SAR EVALUATION REPORT	Approved by: Technical Manager
DUT Type: Portable Handset		APPENDIX I: Page 6 of 16

I.3.2 LTE Band 12 as PCC

Table I-14
Maximum Output Powers

[illegible]

FCC ID: A3LSMS911U	SAR EVALUATION REPORT	Approved by: Technical Manager
DUT Type: Portable Handset		APPENDIX I: Page 7 of 16

I.3.3 LTE Band 13 as PCC

Table I-15
Maximum Output Powers

[illegible]

I.3.4 LTE Band 14 as PCC

Table I-16
Maximum Output Powers

Combination	PCB Band	PCC				SEC 1				SEC 2				SEC 3				SEC 4				Power										
		PCB BW [MHz]	PCC (UL) Ch.	PCC (UL) Freq. [MHz]	Mod.	PCC (UL) RB	PC (UL) RB Offset	PCC (DL) Ch.	PCC (DL) Freq. [MHz]	DL Ant. Config.	SEC Band	SEC BW [MHz]	SEC (DL) Ch.	SEC (DL) Freq. [MHz]	DL Ant. Config.	SEC Band	SEC BW [MHz]	SEC (DL) Ch.	SEC (DL) Freq. [MHz]	DL Ant. Config.	SEC Band	SEC BW [MHz]	SEC (DL) Ch.	SEC (DL) Freq. [MHz]	DL Ant. Config.	LTE Tx Power with DC Enabled [dBm]	LTE Single Carrier Tx Power [dBm]					
CA 2A-2A-14A-30A-66A	LTE B14	5	23330	793	QPSK	1	12	5330	793	2G	LTE B12	20	900	1980	2G	LTE B12	20	700	1940	2G	LTE B10	10	9600	2355	2G	LTE B9	20	9670	2145	44a	24.3	24.3
CA 2A-2A-14A-30A-66A	LTE B14	5	23330	793	QPSK	1	12	5330	793	2G	LTE B12	20	900	1980	2G	LTE B12	20	700	1940	2G	LTE B10	10	9600	2355	2G	LTE B9	20	9670	2145	44a	24.3	24.3
CA 2A-2A-14A-30A-66A	LTE B14	5	23330	793	QPSK	1	12	5330	793	2G	LTE B12	20	900	1980	2G	LTE B12	20	700	1940	2G	LTE B10	10	9600	2355	2G	LTE B9	20	9670	2145	44a	24.3	24.3
CA 2A-2A-14A-30A-66A	LTE B14	5	23330	793	QPSK	1	12	5330	793	2G	LTE B12	20	900	1980	44a	LTE B12	20	700	1940	44a	LTE B10	10	9600	2355	2G	LTE B9	20	9670	2145	44a	24.3	24.3
CA 2A-2A-14A-30A-66A	LTE B14	5	23330	793	QPSK	1	12	5330	793	2G	LTE B12	20	900	1980	44a	LTE B12	20	700	1940	44a	LTE B10	10	9600	2355	2G	LTE B9	20	9670	2145	44a	24.3	24.3
CA 2A-2A-14A-30A-66A	LTE B14	5	23330	793	QPSK	1	12	5330	793	2G	LTE B12	20	900	1980	44a	LTE B12	20	700	1940	44a	LTE B10	10	9600	2355	2G	LTE B9	20	9670	2145	44a	24.3	24.3
CA 2A-2A-14A-30A-66A	LTE B14	5	23330	793	QPSK	1	12	5330	793	2G	LTE B12	20	900	1980	44a	LTE B12	20	700	1940	44a	LTE B10	10	9600	2355	2G	LTE B9	20	9670	2145	44a	24.3	24.3
CA 2A-2A-14A-30A-66A	LTE B14	5	23330	793	QPSK	1	12	5330	793	2G	LTE B12	20	900	1980	44a	LTE B12	20	700	1940	44a	LTE B10	10	9600	2355	2G	LTE B9	20	9670	2145	44a	24.3	24.3
CA 2A-2A-14A-30A-66A	LTE B14	5	23330	793	QPSK	1	12	5330	793	2G	LTE B12	20	900	1980	44a	LTE B12	20	700	1940	44a	LTE B10	10	9600	2355	2G	LTE B9	20	9670	2145	44a	24.3	24.3
CA 2A-2A-14A-30A-66A	LTE B14	5	23330	793	QPSK	1	12	5330	793	2G	LTE B12	20	900	1980	44a	LTE B12	20	700	1940	44a	LTE B10	10	9600	2355	2G	LTE B9	20	9670	2145	44a	24.3	24.3
CA 2A-2A-14A-30A-66A	LTE B14	5	23330	793	QPSK	1	12	5330	793	2G	LTE B12	20	900	1980	44a	LTE B12	20	700	1940	44a	LTE B10	10	9600	2355	2G	LTE B9	20	9670	2145	44a	24.3	24.3
CA 2A-2A-14A-30A-66A	LTE B14	5	23330	793	QPSK	1	12	5330	793	2G	LTE B12	20	900	1980	44a	LTE B12	20	700	1940	44a	LTE B10	10	9600	2355	2G	LTE B9	20	9670	2145	44a	24.3	24.3
CA 2A-2A-14A-30A-66A	LTE B14	5	23330	793	QPSK	1	12	5330	793	2G	LTE B12	20	900	1980	44a	LTE B12	20	700	1940	44a	LTE B10	10	9600	2355	2G	LTE B9	20	9670	2145	44a	24.3	24.3
CA 2A-2A-14A-30A-66A	LTE B14	5	23330	793	QPSK	1	12	5330	793	2G	LTE B12	20	900	1980	44a	LTE B12	20	700	1940	44a	LTE B10	10	9600	2355	2G	LTE B9	20	9670	2145	44a	24.3	24.3
CA 2A-2A-14A-30A-66A	LTE B14	5	23330	793	QPSK	1	12	5330	793	2G	LTE B12	20	900	1980	44a	LTE B12	20	700	1940	44a	LTE B10	10	9600	2355	2G	LTE B9	20	9670	2145	44a	24.3	24.3
CA 2A-2A-14A-30A-66A	LTE B14	5	23330	793	QPSK	1	12	5330	793	2G	LTE B12	20	900	1980	44a	LTE B12	20	700	1940	44a	LTE B10	10	9600	2355	2G	LTE B9	20	9670	2145	44a	24.3	24.3
CA 2A-2A-14A-30A-66A	LTE B14	5	23330	793	QPSK	1	12	5330	793	2G	LTE B12	20	900	1980	44a	LTE B12	20	700	1940	44a	LTE B10	10	9600	2355	2G	LTE B9	20	9670	2145	44a	24.3	24.3
CA 2A-2A-14A-30A-66A	LTE B14	5	23330	793	QPSK	1	12	5330	793	2G	LTE B12	20	900	1980	44a	LTE B12	20	700	1940	44a	LTE B10	10	9600	2355	2G	LTE B9	20	9670	2145	44a	24.3	24.3
CA 2A-2A-14A-30A-66A	LTE B14	5	23330	793	QPSK	1	12	5330	793	2G	LTE B12	20	900	1980	44a	LTE B12	20	700	1940	44a	LTE B10	10	9600	2355	2G	LTE B9	20	9670	2145	44a	24.3	24.3
CA 2A-2A-14A-30A-66A	LTE B14	5	23330	793	QPSK	1	12	5330	793	2G	LTE B12	20	900	1980	44a	LTE B12	20	700	1940	44a	LTE B10	10	9600	2355	2G	LTE B9	20	9670	2145	44a	24.3	24.3
CA 2A-2A-14A-30A-66A	LTE B14	5	23330	793	QPSK	1	12	5330	793	2G	LTE B12	20	900	1980	44a	LTE B12	20	700	1940	44a	LTE B10	10	9600	2355	2G	LTE B9	20	9670	2145	44a	24.3	24.3
CA 2A-2A-14A-30A-66A	LTE B14	5	23330	793	QPSK	1	12	5330	793	2G	LTE B12	20	900	1980	44a	LTE B12	20	700	1940	44a	LTE B10	10	9600	2355	2G	LTE B9	20	9670	2145	44a	24.3	24.3
CA 2A-2A-14A-30A-66A	LTE B14	5	23330	793	QPSK	1	12	5330	793	2G	LTE B12	20	900	1980	44a	LTE B12	20	700	1940	44a	LTE B10	10	9600	2355	2G	LTE B9	20	9670	2145	44a	24.3	24.3
CA 2A-2A-14A-30A-66A	LTE B14	5	23330	793	QPSK	1	12	5330	793	2G	LTE B12	20	900	1980	44a	LTE B12	20	700	1940	44a	LTE B10	10	9600	2355	2G	LTE B9	20	9670	2145	44a	24.3	24.3
CA 2A-2A-14A-30A-66A	LTE B14	5	23330	793	QPSK	1	12	5330	793	2G	LTE B12	20	900	1980	44a	LTE B12	20	700	1940	44a	LTE B10	10	9600	2355	2G	LTE B9	20	9670	2145	44a	24.3	24.3
CA 2A-2A-14A-30A-66A	LTE B14	5	23330	793	QPSK	1	12	5330	793	2G	LTE B12	20	900	1980	44a	LTE B12	20	700	1940	44a	LTE B10	10	9600	2355	2G	LTE B9	20	9670	2145	44a	24.3	24.3
CA 2A-2A-14A-30A-66A	LTE B14	5	23330	793	QPSK	1	12	5330	793	2G	LTE B12	20	900	1980	44a	LTE B12	20	700	1940	44a	LTE B10	10	9600	2355	2G	LTE B9	20	9670	2145	44a	24.3	24.3
CA 2A-2A-14A-30A-66A	LTE B14	5	23330	793	QPSK	1	12	5330	793	2G	LTE B12	20	900	1980	44a	LTE B12	20	700	1940	44a	LTE B10	10	9600	2355	2G	LTE B9	20	9670	2145	44a	24.3	24.3
CA 2A-2A-14A-30A-66A	LTE B14	5	23330	793	QPSK	1	12	5330	793	2G	LTE B12	20	900	1980	44a	LTE B12	20	700	1940	44a	LTE B10	10	9600	2355	2G	LTE B9	20	9670	2145	44a	24.3	24.3
CA 2A-2A-14A-30A-66A	LTE B14	5	23330	793	QPSK	1	12	5330	793	2G	LTE B12	20	900	1980	44a	LTE B12	20	700	1940	44a	LTE B10	10	9600	2355	2G	LTE B9	20	9670	2145	44a	24.3	24.3
CA 2A-2A-14A-30A-66A	LTE B14	5	23330	793	QPSK	1	12	5330	793	2G	LTE B12	20	900	1980	44a	LTE B12	20	700	1940	44a	LTE B10	10	9600	2355	2G	LTE B9	20	9670	2145	44a	24.3	24.3
CA 2A-2A-14A-30A-66A	LTE B14	5	23330	793	QPSK	1	12	5330	793	2G	LTE B12	20	900	1980	44a	LTE B12	20	700	1940	44a	LTE B10	10	9600	2355	2G	LTE B9	20	9670	2145	44a	24.3	24.3
CA 2A-2A-14A-30A-66A	LTE B14	5	23330	793	QPSK	1	12	5330	793	2G	LTE B12	20	900	1980	44a	LTE B12	20	700	1940	44a	LTE B10	10	9600	2355	2G	LTE B9	20	9670	2145	44a	24.3	24.3
CA 2A-2A-14A-30A-66A	LTE B14	5	23330	793	QPSK	1	12	5330	793	2G	LTE B12	20	900	1980	44a	LTE B12	20	700	1940	44a	LTE B10	10	9600	2355	2G	LTE B9	20	9670	2145	44a	24.3	24.3
CA 2A-2A-14A-30A-66A	LTE B14	5	23330	793	QPSK	1	12	5330	793	2G	LTE B12	20	900	1980	44a	LTE B12	20	700	1940	44a	LTE B10	10	9600	2355	2G	LTE B9	20	9670	2145	44a	24.3	24.3
CA 2A-2A-14A-30A-66A	LTE B14	5	23330	793	QPSK	1	12	5330	793	2G	LTE B12	20	900	1980	44a	LTE B12	20	700	1940	44a	LTE B10	10	9600	2355	2G	LTE B9	20	9670	2145	44a	24.3	24.3
CA 2A-2A-14A-30A-66A	LTE B14	5	23330	793	QPSK	1	12	5330	793	2G	LTE B12	20	900	1980	44a	LTE B12	20	700	1940	44a	LTE B10	10	9600	2355	2G	LTE B9	20	9670	2145	44a	24.3	24.3
CA 2A-2A-14A-30A-66A	LTE B14	5	23330	793	QPSK	1	12	5330	793	2G	LTE B12	20	900	1980	44a	LTE B12	20	700	1940	44a	LTE B10	10	9600	2355	2G	LTE B9	20	9670	2145	44a	24.3	24.3
CA 2A-2A-14A-30A-66A	LTE B14	5	23330	793	QPSK	1	12	5330	793	2G	LTE B12	20	900	1980	44a	LTE B12	20	700	1940	44a	LTE B10	10	9600	2355	2G	LTE B9	20	9670	2145	44a	24.3	24.3
CA 2A-2A-14A-30A-66A	LTE B14	5	23330	793	QPSK	1	12	5330	793	2G	LTE B12	20	900	1980	44a	LTE B12	20	700	1940	44a	LTE B10	10	9600	2355	2G	LTE B9	20	9670	2145	44a	24.3	24.3
CA 2A-2A-14A-30A-66A	LTE B14	5	23330	793	QPSK	1	12	5330	793	2G	LTE B12	20	900	1980	44a	LTE B12	20	700	1940	44a	LTE B10	10	9600	2355	2G	LTE B9	20	9670	2145	44a	24.3	24.3
CA 2A-2A-14A-30A-66A	LTE B14	5	23330	793	QPSK	1	12	5330	793	2G	LTE B12	20	900	1980	44a	LTE B12	20	700	1940	44a	LTE B10	10	9600	2355								

I.3.5 LTE Band 71 as PCC

Table I-17
Maximum Output Powers

Combination	PCC Band	PCC BW [MHz]	PCC [UL] Ch.	PCC [UL] Freq. [MHz]	Mod.	PCC				DL Ant. Config.	SCC 1				DL Ant. Config.	SCC 2				DL Ant. Config.	SCC 3				Power		
						PCC UL RB	PCC UL RB Offset	PCC [DL] Ch.	PCC [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]		SCC Band	SCC BW [MHz]	SCC [DL] Ch.	SCC [DL] Freq. [MHz]	LTE Tx Power with DL CA Enabled (dBm)	LTE Single Carrier Tx Power (dBm)	
CA [4A]-[4A]-71A	LTE B71	5	133147	665.5	QPSK	1	24	68611	619.5	2x2	LTE B4	20	2175	2132.5	4x4	LTE B4	10	2350	2150	2x2	-	-	-	-	-	25.03	24.98
CA [4A]-[4A]-71A	LTE B71	5	133147	665.5	QPSK	1	24	68611	619.5	2x2	LTE B4	20	2175	2132.5	4x4	LTE B4	10	2350	2150	4x4	-	-	-	-	-	24.98	24.98
CA [4A]-[4A]-71A	LTE B71	5	133147	665.5	QPSK	1	24	68611	619.5	2x2	LTE B4B	20	55990	3625	4x4	LTE B4B	20	56640	3650	2x2	-	-	-	-	-	25.01	24.98
CA [4B]-[4B]-71A	LTE B71	5	133147	665.5	QPSK	1	24	68611	619.5	2x2	LTE B4B	20	55990	3625	4x4	LTE B4B	20	55340	3560	4x4	-	-	-	-	-	25.03	24.98
CA [4B]-[71A]	LTE B71	5	133147	665.5	QPSK	1	24	68611	619.5	2x2	LTE B4B	20	55990	3625	4x4	LTE B4B	20	56188	3644.8	4x4	-	-	-	-	-	25.02	24.98
CA [2A]-[2A]-[4A]-71A	LTE B71	5	133147	665.5	QPSK	1	24	68611	619.5	2x2	LTE B2	20	900	1960	2x2	LTE B2	20	700	1940	2x2	LTE B4	20	2175	2132.5	4x4	24.98	24.98
CA [2A]-[2A]-[4A]-71A	LTE B71	5	133147	665.5	QPSK	1	24	68611	619.5	2x2	LTE B2	20	900	1960	4x4	LTE B2	20	700	1940	2x2	LTE B4	20	2175	2132.5	2x2	25.00	24.98
CA [2A]-[2A]-[4A]-71A	LTE B71	5	133147	665.5	QPSK	1	24	68611	619.5	2x2	LTE B2	20	900	1960	4x4	LTE B2	20	700	1940	2x2	LTE B4	20	2175	2132.5	4x4	24.99	24.98
CA [2A]-[2A]-[4A]-71A	LTE B71	5	133147	665.5	QPSK	1	24	68611	619.5	2x2	LTE B2	20	900	1960	4x4	LTE B2	20	700	1940	4x4	LTE B4	20	2175	2132.5	2x2	25.00	24.98
CA [2A]-[2A]-[6A]-71A	LTE B71	5	133147	665.5	QPSK	1	24	68611	619.5	2x2	LTE B2	20	900	1960	2x2	LTE B2	20	700	1940	2x2	LTE B6B	20	66786	2145	4x4	25.02	24.98
CA [2A]-[2A]-[6A]-71A	LTE B71	5	133147	665.5	QPSK	1	24	68611	619.5	2x2	LTE B2	20	900	1960	4x4	LTE B2	20	700	1940	2x2	LTE B6B	20	66786	2145	2x2	24.98	24.98
CA [2A]-[2A]-[6A]-71A	LTE B71	5	133147	665.5	QPSK	1	24	68611	619.5	2x2	LTE B2	20	900	1960	4x4	LTE B2	20	700	1940	4x4	LTE B6B	20	66786	2145	2x2	25.06	24.98
CA [2A]-[6A]-[6A]-71A	LTE B71	5	133147	665.5	QPSK	1	24	68611	619.5	2x2	LTE B2	20	900	1960	2x2	LTE B6B	20	66786	2145	4x4	LTE B6B	20	66786	2145	4x4	25.03	24.98
CA [2A]-[6A]-[6A]-71A	LTE B71	5	133147	665.5	QPSK	1	24	68611	619.5	2x2	LTE B2	20	900	1960	4x4	LTE B6B	20	66786	2145	2x2	LTE B6B	20	67236	2190	2x2	24.98	24.98
CA [2A]-[6A]-[6A]-71A	LTE B71	5	133147	665.5	QPSK	1	24	68611	619.5	2x2	LTE B2	20	900	1960	4x4	LTE B6B	20	66786	2145	4x4	LTE B6B	20	67236	2190	4x4	25.01	24.98
CA [2A]-[6A]-[6A]-71A	LTE B71	5	133147	665.5	QPSK	1	24	68611	619.5	2x2	LTE B2	20	900	1960	4x4	LTE B6B	20	66786	2145	4x4	LTE B6B	20	67236	2190	4x4	24.99	24.98
CA [2A]-[6A]-[6A]-71A	LTE B71	5	133147	665.5	QPSK	1	24	68611	619.5	2x2	LTE B2	20	900	1960	2x2	LTE B6B	20	66786	2145	4x4	LTE B6B	20	66984	2164.8	4x4	24.96	24.98
CA [2A]-[6A]-[6A]-71A	LTE B71	5	133147	665.5	QPSK	1	24	68611	619.5	2x2	LTE B2	20	900	1960	4x4	LTE B6B	20	66786	2145	2x2	LTE B6B	20	66984	2164.8	2x2	25.00	24.98
CA [2A]-[6A]-[6A]-71A	LTE B71	5	133147	665.5	QPSK	1	24	68611	619.5	2x2	LTE B2	20	900	1960	4x4	LTE B6B	20	66786	2145	4x4	LTE B6B	20	66984	2164.8	4x4	24.96	24.98

FCC ID: A3LSMS911U	SAR EVALUATION REPORT	Approved by: Technical Manager
DUT Type: Portable Handset		APPENDIX I: Page 9 of 16

I.3.6 LTE Band 5 as PCC

Table I-18
Maximum Output Powers

[illegible]

APPENDIX I:
Page 11 of 16

[illegible]

I.3.8 LTE Band 25 as PCC

Table I-20
Maximum Output Powers

		PCC										SCC 1				SCC 2				SCC 3				Power				
Combination	PCC Band	PCC BW [MHz]	PCC U/L Ch.	Freq [MHz]	Mod.	PCC U/L RB	PCC U/L 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 CA Enabled (dBm)	LTE Single Carrier Power (dBm)	
CA_5A-[25A]	LTE B25	20	26140	1860	QPSK	1	0	8140	1940	4x4	LTE B5	10	2525	881.5	2x2	-	-	-	-	-	-	-	-	-	-	-	23.32	23.29
CA_12A-[25A]	LTE B25	20	26140	1860	QPSK	1	0	8140	1940	4x4	LTE B12	10	5095	737.5	2x2	-	-	-	-	-	-	-	-	-	-	-	23.29	23.29
CA_25A-[25A] (1)	LTE B25	20	26140	1860	QPSK	1	0	8140	1940	2x2	LTE B25	20	8590	1985	4x4	-	-	-	-	-	-	-	-	-	-	-	23.33	23.29
CA_[25A]-[25A] (1)	LTE B25	20	26140	1860	QPSK	1	0	8140	1940	4x4	LTE B25	20	8590	1985	2x2	-	-	-	-	-	-	-	-	-	-	-	23.26	23.29
CA_[25A]-[25A] (1)	LTE B25	20	26140	1860	QPSK	1	0	8140	1940	4x4	LTE B25	20	8590	1985	4x4	-	-	-	-	-	-	-	-	-	-	-	23.24	23.29
CA_[25A]-[41A]	LTE B25	20	26140	1860	QPSK	1	0	8140	1940	2x2	LTE B41	20	40620	2593	4x4	-	-	-	-	-	-	-	-	-	-	-	23.29	23.29
CA_[25A]-[41A]	LTE B25	20	26140	1860	QPSK	1	0	8140	1940	4x4	LTE B41	20	40620	2593	2x2	-	-	-	-	-	-	-	-	-	-	-	23.22	23.29
CA_[25A]-[41A]	LTE B25	20	26140	1860	QPSK	1	0	8140	1940	4x4	LTE B41	20	40620	2593	4x4	-	-	-	-	-	-	-	-	-	-	-	23.26	23.29
CA_25A-[41C]	LTE B25	20	26140	1860	QPSK	1	0	8140	1940	2x2	LTE B41	20	40620	2593	4x4	-	LTE B41	20	40422	2573.2	4x4	-	-	-	-	-	23.33	23.29
CA_[25A]-[41C]	LTE B25	20	26140	1860	QPSK	1	0	8140	1940	4x4	LTE B41	20	40620	2593	2x2	LTE B41	20	40422	2573.2	2x2	-	-	-	-	-	-	23.32	23.29
CA_[25A]-[41C]	LTE B25	20	26140	1860	QPSK	1	0	8140	1940	4x4	LTE B41	20	40620	2593	4x4	-	LTE B41	20	40422	2573.2	4x4	-	-	-	-	-	23.38	23.29
CA_5A-[41D]	LTE B25	20	26140	1860	QPSK	1	0	8140	1940	2x2	LTE B41	20	40422	2573.2	4x4	LTE B41	20	40620	2593	4x4	LTE B41	20	40818	2612.8	4x4	20	20	23.29
CA_[25A]-[41D]	LTE B25	20	26140	1860	QPSK	1	0	8140	1940	4x4	LTE B41	20	40422	2573.2	2x2	LTE B41	20	40818	2612.8	2x2	LTE B41	20	40818	2612.8	2x2	20	20	23.29
CA_[25A]-[41D]	LTE B25	20	26140	1860	QPSK	1	0	8140	1940	4x4	LTE B41	20	40422	2573.2	4x4	LTE B41	20	40620	2593	4x4	LTE B41	20	40818	2612.8	4x4	23.38	23.29	

I.3.9 LTE Band 30 as PCC

Table I-21
Maximum Output Powers

Combination	PCC Band	PCC BW [MHz]	PCC [UL] Ch.	PCC [UL] Freq. [MHz]	PCC			DL Ant. Config.	SCC1			DL Ant. Config.	SCC2			DL Ant. Config.	SCC3			DL Ant. Config.	SCC4			DL Ant. Config.	LTE TDD CA Tx (radio)	Power Class	LTE Single Carrier Tx Power (dBm)
					Mod.	PCC US RB	PCC UR Offset		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]				
CA 2A,2A-2A,10A	LTE-B30	5	27210	2310	QPSK	1	12	8630	2355	44a	LTE-B2	20	700	1860	242	LTE-B2	20	700	1860	242	LTE-B20	10	9715	722.5	242	22.51	22.42
CA 2A,2A-2A,10A	LTE-B30	5	27210	2310	QPSK	1	12	8630	2355	44a	LTE-B2	20	700	1860	242	LTE-B20	10	9715	722.5	242	LTE-B20	10	9715	722.5	242	22.51	22.42
CA 2A,2A-2A,10A	LTE-B30	5	27210	2310	QPSK	1	12	8630	2355	44a	LTE-B2	20	700	1860	242	LTE-B20	10	9715	722.5	242	LTE-B20	10	9715	722.5	242	22.51	22.42
CA 2A,2A-2A,10A	LTE-B30	5	27210	2310	QPSK	1	12	8630	2355	44a	LTE-B2	20	700	1860	242	LTE-B20	10	9715	722.5	242	LTE-B20	10	9715	722.5	242	22.51	22.42
CA 2A,2A-2A,10A	LTE-B30	5	27210	2310	QPSK	1	12	8630	2355	44a	LTE-B2	20	700	1860	242	LTE-B20	10	9715	722.5	242	LTE-B20	10	9715	722.5	242	22.51	22.42
CA 2A,2A-2A,10A	LTE-B30	5	27210	2310	QPSK	1	12	8630	2355	44a	LTE-B2	20	700	1860	242	LTE-B20	10	9715	722.5	242	LTE-B20	10	9715	722.5	242	22.51	22.42
CA 2A,2A-2A,10A	LTE-B30	5	27210	2310	QPSK	1	12	8630	2355	44a	LTE-B2	20	700	1860	242	LTE-B20	10	9715	722.5	242	LTE-B20	10	9715	722.5	242	22.51	22.42
CA 2A,2A-2A,10A	LTE-B30	5	27210	2310	QPSK	1	12	8630	2355	44a	LTE-B2	20	700	1860	242	LTE-B20	10	9715	722.5	242	LTE-B20	10	9715	722.5	242	22.51	22.42
CA 2A,2A-2A,10A	LTE-B30	5	27210	2310	QPSK	1	12	8630	2355	44a	LTE-B2	20	700	1860	242	LTE-B20	10	9715	722.5	242	LTE-B20	10	9715	722.5	242	22.51	22.42
CA 2A,2A-2A,10A	LTE-B30	5	27210	2310	QPSK	1	12	8630	2355	44a	LTE-B2	20	700	1860	242	LTE-B20	10	9715	722.5	242	LTE-B20	10	9715	722.5	242	22.51	22.42
CA 2A,2A-2A,10A	LTE-B30	5	27210	2310	QPSK	1	12	8630	2355	44a	LTE-B2	20	700	1860	242	LTE-B20	10	9715	722.5	242	LTE-B20	10	9715	722.5	242	22.51	22.42
CA 2A,2A-2A,10A	LTE-B30	5	27210	2310	QPSK	1	12	8630	2355	44a	LTE-B2	20	700	1860	242	LTE-B20	10	9715	722.5	242	LTE-B20	10	9715	722.5	242	22.51	22.42
CA 2A,2A-2A,10A	LTE-B30	5	27210	2310	QPSK	1	12	8630	2355	44a	LTE-B2	20	700	1860	242	LTE-B20	10	9715	722.5	242	LTE-B20	10	9715	722.5	242	22.51	22.42
CA 2A,2A-2A,10A	LTE-B30	5	27210	2310	QPSK	1	12	8630	2355	44a	LTE-B2	20	700	1860	242	LTE-B20	10	9715	722.5	242	LTE-B20	10	9715	722.5	242	22.51	22.42
CA 2A,2A-2A,10A	LTE-B30	5	27210	2310	QPSK	1	12	8630	2355	44a	LTE-B2	20	700	1860	242	LTE-B20	10	9715	722.5	242	LTE-B20	10	9715	722.5	242	22.51	22.42
CA 2A,2A-2A,10A	LTE-B30	5	27210	2310	QPSK	1	12	8630	2355	44a	LTE-B2	20	700	1860	242	LTE-B20	10	9715	722.5	242	LTE-B20	10	9715	722.5	242	22.51	22.42
CA 2A,2A-2A,10A	LTE-B30	5	27210	2310	QPSK	1	12	8630	2355	44a	LTE-B2	20	700	1860	242	LTE-B20	10	9715	722.5	242	LTE-B20	10	9715	722.5	242	22.51	22.42
CA 2A,2A-2A,10A	LTE-B30	5	27210	2310	QPSK	1	12	8630	2355	44a	LTE-B2	20	700	1860	242	LTE-B20	10	9715	722.5	242	LTE-B20	10	9715	722.5	242	22.51	22.42
CA 2A,2A-2A,10A	LTE-B30	5	27210	2310	QPSK	1	12	8630	2355	44a	LTE-B2	20	700	1860	242	LTE-B20	10	9715	722.5	242	LTE-B20	10	9715	722.5	242	22.51	22.42
CA 2A,2A-2A,10A	LTE-B30	5	27210	2310	QPSK	1	12	8630	2355	44a	LTE-B2	20	700	1860	242	LTE-B20	10	9715	722.5	242	LTE-B20	10	9715	722.5	242	22.51	22.42
CA 2A,2A-2A,10A	LTE-B30	5	27210	2310	QPSK	1	12	8630	2355	44a	LTE-B2	20	700	1860	242	LTE-B20	10	9715	722.5	242	LTE-B20	10	9715	722.5	242	22.51	22.42
CA 2A,2A-2A,10A	LTE-B30	5	27210	2310	QPSK	1	12	8630	2355	44a	LTE-B2	20	700	1860	242	LTE-B20	10	9715	722.5	242	LTE-B20	10	9715	722.5	242	22.51	22.42
CA 2A,2A-2A,10A	LTE-B30	5	27210	2310	QPSK	1	12	8630	2355	44a	LTE-B2	20	700	1860	242	LTE-B20	10	9715	722.5	242	LTE-B20	10	9715	722.5	242	22.51	22.42
CA 2A,2A-2A,10A	LTE-B30	5	27210	2310	QPSK	1	12	8630	2355	44a	LTE-B2	20	700	1860	242	LTE-B20	10	9715	722.5	242	LTE-B20	10	9715	722.5	242	22.51	22.42
CA 2A,2A-2A,10A	LTE-B30	5	27210	2310	QPSK	1	12	8630	2355	44a	LTE-B2	20	700	1860	242	LTE-B20	10	9715	722.5	242	LTE-B20	10	9715	722.5	242	22.51	22.42
CA 2A,2A-2A,10A	LTE-B30	5	27210	2310	QPSK	1	12	8630	2355	44a	LTE-B2	20	700	1860	242	LTE-B20	10	9715	722.5	242	LTE-B20	10	9715	722.5	242	22.51	22.42
CA 2A,2A-2A,10A	LTE-B30	5	27210	2310	QPSK	1	12	8630	2355	44a	LTE-B2	20	700	1860	242	LTE-B20	10	9715	722.5	242	LTE-B20	10	9715	722.5	242	22.51	22.42
CA 2A,2A-2A,10A	LTE-B30	5	27210	2310	QPSK	1	12	8630	2355	44a	LTE-B2	20	700	1860	242	LTE-B20	10	9715	722.5	242	LTE-B20	10	9715	722.5	242	22.51	22.42
CA 2A,2A-2A,10A	LTE-B30	5	27210	2310	QPSK	1	12	8630	2355	44a	LTE-B2	20	700	1860	242	LTE-B20	10	9715	722.5	242	LTE-B20	10	9715	722.5	242	22.51	22.42
CA 2A,2A-2A,10A	LTE-B30	5	27210	2310	QPSK	1	12	8630	2355	44a	LTE-B2	20	700	1860	242	LTE-B20	10	9715	722.5	242	LTE-B20	10	9715	722.5	242	22.51	22.42
CA 2A,2A-2A,10A	LTE-B30	5	27210	2310	QPSK	1	12	8630	2355	44a	LTE-B2	20	700	1860	242	LTE-B20	10	9715	722.5	242	LTE-B20	10	9715	722.5	242	22.51	22.42
CA 2A,2A-2A,10A	LTE-B30	5	27210	2310	QPSK	1	12	8630	2355	44a	LTE-B2	20	700	1860	242	LTE-B20	10	9715	722.5	242	LTE-B20	10	9715	722.5	242	22.51	22.42
CA 2A,2A-2A,10A	LTE-B30	5	27210	2310	QPSK	1	12	8630	2355	44a	LTE-B2	20	700	1860	242	LTE-B20	10	9715	722.5	242	LTE-B20	10	9715	722.5	242	22.51	22.42
CA 2A,2A-2A,10A	LTE-B30	5	27210	2310	QPSK	1	12	8630	2355	44a	LTE-B2	20	700	1860	242	LTE-B20	10	9715	722.5	242	LTE-B20	10	9715	722.5	242	22.51	22.42
CA 2A,2A-2A,10A	LTE-B30	5	27210	2310	QPSK	1	12	8630	2355	44a	LTE-B2	20	700	1860	242	LTE-B20	10	9715	722.5	242	LTE-B20	10	9715	722.5	242	22.51	22.42
CA 2A,2A-2A,10A	LTE-B30	5	27210	2310	QPSK	1	12	8630	2355	44a	LTE-B2	20	700	1860	242	LTE-B20	10	9715	722.5	242	LTE-B20	10	9715	722.5	242	22.51	22.42
CA 2A,2A-2A,10A	LTE-B30	5	27210	2310	QPSK	1	12	8630	2355	44a	LTE-B2	20	700	1860	242	LTE-B20	10	9715	722.5	242	LTE-B20	10	9715	722.5	242	22.51	22.42
CA 2A,2A-2A,10A	LTE-B30	5	27210	2310	QPSK	1	12	8630	2355	44a	LTE-B2	20	700	1860	242	LTE-B20	10	9715	722.5	242	LTE-B20	10	9715	722.5	242	22.51	22.42
CA 2A,2A-2A,10A	LTE-B30	5	27210	2310	QPSK	1	12	8630	2355	44a	LTE-B2	20	700	1860	242	LTE-B20	10	9715	722.5	242	LTE-B20	10	9715	722.5	242	22.51	22.42
CA 2A,2A-2A,10A	LTE-B30	5	27210	2310	QPSK	1	12	8630	2355	44a	LTE-B2	20	700	1860	242	LTE-B20	10	9715	722.5	242	LTE-B20	10	9715	722.5	242	22.51	22.42
CA 2A,2A-2A,10A	LTE-B30	5	27210	2310	QPSK	1	12	8630	2355	44a	LTE-B2	20	700	1860	242	LTE-B20	10	9715	722.5	242	LTE-B20	10	9715	722.5	242	22.51	22.42
CA 2A,2A-2A,10A	LTE-B30	5	27210	2310	QPSK	1	12	8630	2355	44a	LTE-B2	20	700	1860	242	LTE-B20	10	9715	722.5	242	LTE-B20	10	9715	722.5	242	22.51	22.42
CA 2A,2A-2A,10A	LTE-B30	5	27210	2310	QPSK	1	12	8630	2355	44a	LTE-B2	20	700	1860	242	LTE-B20	10	9715	722.5	242	LTE-B20	10	9715	722.5	242	22.51	22.42
CA 2A,2A-2A,10A	LTE-B30	5	27210	2310	QPSK	1	12	8630	2355	44a	LTE-B2	20	700	1860	242	LTE-B20	10	9715	722.5	242	LTE-B20	10	9715	722.5	242	22.51	22.42
CA 2A,2A-2A,10A	LTE-B30	5	27210	2310	QPSK	1	12	8630	2355	44a	LTE-B2	20	700	1860	242	LTE-B20	10	9715	722.5	242	LTE-B20	10	9715	722.5	242	22.51	22.42
CA 2A,2A-2A,10A	LTE-B30	5	27210	2310	QPSK	1	12	8630	2355	44a	LTE-B2	20	700	1860	242	LTE-B20	10	9715	722.5	242	LTE-B20	10	9715	722.5	242	22.51	22.42
CA 2A,2A-2A,10A	LTE-B30	5	27210	2310	QPSK	1	12	8630	2355	44a	LTE-B2	20	700	1860	242	LTE-B20	10	9715	722.5	242	LTE-B20	10	9715	722.5	242	22.51	22.42
CA 2A,2A-2A,10A	LTE-B30	5	27210	2310	QPSK	1	12	8630	2355	44a	LTE-B2	20	700	1860	242	LTE-B20	10	9715	722.5	242	LTE-B20	10	9715</				

I.3.10 LTE Band 41 as PCC

Table I-22
Maximum Output Powers

Combination	PCC Band	PCC BW [MHz]	PCC (UL) Ch.	PCC						SCC 1					SCC 2					Power		
				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 [41A]-41A (1)	LTE B41	10	39750	2506	QPSK	1	25	39750	2506	4x4	LTE B41	20	41490	2680	2x2	-	-	-	-	23.78	23.88	
CA 41A-41A (1)	LTE B41	10	39750	2506	QPSK	1	25	39750	2506	2x2	LTE B41	20	41490	2680	4x4	-	-	-	-	23.87	23.88	
CA [41A]-41A (1)	LTE B41	10	39750	2506	QPSK	1	25	39750	2506	4x4	LTE B41	20	41490	2680	4x4	-	-	-	-	23.85	23.88	
CA [41A]-41C (1)	LTE B41	10	39750	2506	QPSK	1	25	39750	2506	2x2	LTE B41	20	41292	2660.2	4x4	LTE B41	20	41490	2680	4x4	23.71	23.88
CA [41C]-41A (1)	LTE B41	10	39750	2506	QPSK	1	25	39750	2506	4x4	LTE B41	20	39894	2520.4	4x4	LTE B41	20	41490	2680	2x2	23.73	23.88
CA [41A]-41C (1)	LTE B41	10	39750	2506	QPSK	1	25	39750	2506	4x4	LTE B41	20	41292	2660.2	2x2	LTE B41	20	41490	2680	2x2	23.76	23.88
CA [41C]-41A (1)	LTE B41	10	39750	2506	QPSK	1	25	39750	2506	2x2	LTE B41	20	39894	2520.4	2x2	LTE B41	20	41490	2680	4x4	23.68	23.88
CA [41A]-41C (1)	LTE B41	10	39750	2506	QPSK	1	25	39750	2506	4x4	LTE B41	20	41292	2660.2	4x4	LTE B41	20	41490	2680	4x4	23.77	23.88
CA [41A]-41A (1)	LTE B41	10	39750	2506	QPSK	1	25	39750	2506	4x4	LTE B41	20	39894	2520.4	4x4	LTE B41	20	41490	2680	4x4	23.70	23.88
CA [41C]-41A (1)	LTE B41	10	39750	2506	QPSK	1	25	39750	2506	4x4	LTE B41	20	39894	2520.4	4x4	LTE B41	20	40092	2560.2	4x4	23.77	23.88

FCC ID: A3LSMS911U

DUT Type:
Portable Handset

SAR EVALUATION REPORT

Approved by:
Technical Manager

APPENDIX I:
Page 14 of 16

I.3.1 LTE Band 48 as PCC

Table I-23
Maximum Output Powers

Combination	PCC Band	PCC BW [MHz]	PCC [UL] Ch.	PCC [UL] Freq. [MHz]	Mod.	PCC				DL Ant. Config.	SCC 1				DL Ant. Config.	SCC 2				DL Ant. Config.	SCC 3				DL Ant. Config.	SCC 4				Power				
						PCC UL RB	PCC UL RB Offset	PCC [DL] Ch.	PCC [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]		SCC Band	SCC BW [MHz]	SCC [DL] Ch.	SCC [DL] Freq. [MHz]		SCC Band	SCC BW [MHz]	SCC [DL] Ch.	SCC [DL] Freq. [MHz]	LTE Tx Power with DL CA Enabled (dBm)	LTE Single Carrier Tx Power (dBm)			
CA_48A-48A	LTE B48	20	56223	3648.3	QPSK	25	0	56223	3648.3	2x2	LTE B48	20	55340	3660	4x4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	23.94	21.40		
CA_48B-48A	LTE B48	20	56223	3648.3	QPSK	25	0	56223	3648.3	4x4	LTE B48	20	55340	3660	2x2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	23.96	21.40	
CA_48A-48A	LTE B48	20	56223	3648.3	QPSK	25	0	56223	3648.3	4x4	LTE B48	20	55340	3660	4x4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	23.93	21.40	
CA_48B	LTE B48	20	56223	3648.3	QPSK	25	0	56223	3648.3	4x4	LTE B48	20	56224	3652.4	4x4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	23.92	21.40	
CA_48A-48C	LTE B48	20	56223	3648.3	QPSK	25	0	56223	3648.3	2x2	LTE B48	20	55340	3660	4x4	LTE B48	20	55338	3679.8	4x4	-	-	-	-	-	-	-	-	-	-	-	-	21.32	21.40
CA_48C-48A	LTE B48	20	56223	3648.3	QPSK	25	0	56223	3648.3	4x4	LTE B48	20	56079	3633.9	4x4	LTE B48	20	55340	3660	2x2	-	-	-	-	-	-	-	-	-	-	-	-	23.92	21.40
CA_48A-48C	LTE B48	20	56223	3648.3	QPSK	25	0	56223	3648.3	4x4	LTE B48	20	55340	3660	2x2	LTE B48	20	55338	3679.8	2x2	-	-	-	-	-	-	-	-	-	-	-	-	21.35	21.40
CA_48C-48A	LTE B48	20	56223	3648.3	QPSK	25	0	56223	3648.3	2x2	LTE B48	20	56079	3633.9	2x2	LTE B48	20	55340	3660	4x4	-	-	-	-	-	-	-	-	-	-	-	-	21.27	21.40
CA_48A-48C	LTE B48	20	56223	3648.3	QPSK	25	0	56223	3648.3	4x4	LTE B48	20	55340	3660	4x4	LTE B48	20	55338	3679.8	4x4	-	-	-	-	-	-	-	-	-	-	-	-	21.28	21.40
CA_48C-48A	LTE B48	20	56223	3648.3	QPSK	25	0	56223	3648.3	4x4	LTE B48	20	56079	3633.9	4x4	LTE B48	20	55340	3660	4x4	-	-	-	-	-	-	-	-	-	-	-	-	21.33	21.40
CA_48A-48C	LTE B48	20	56223	3648.3	QPSK	25	0	56223	3648.3	2x2	LTE B48	20	55340	3660	4x4	LTE B48	20	55338	3679.8	4x4	LTE B48	20	55738	3699.8	4x4	-	-	-	-	-	-	-	21.39	21.40
CA_48C-48A	LTE B48	20	56223	3648.3	QPSK	25	0	56223	3648.3	4x4	LTE B48	20	56079	3633.9	4x4	LTE B48	20	55881	3614.1	4x4	LTE B48	20	56640	3690	2x2	-	-	-	-	-	-	-	23.39	21.40
CA_48A-48C	LTE B48	20	56223	3648.3	QPSK	25	0	56223	3648.3	4x4	LTE B48	20	55340	3660	2x2	LTE B48	20	55338	3679.8	2x2	LTE B48	20	55738	3699.8	4x4	-	-	-	-	-	-	-	23.43	21.40
CA_48C-48A	LTE B48	20	56223	3648.3	QPSK	25	0	56223	3648.3	2x2	LTE B48	20	56079	3633.9	2x2	LTE B48	20	55881	3614.1	2x2	LTE B48	20	56640	3690	4x4	-	-	-	-	-	-	-	23.48	21.40
CA_48A-48C	LTE B48	20	56223	3648.3	QPSK	25	0	56223	3648.3	4x4	LTE B48	20	55340	3660	4x4	LTE B48	20	55881	3614.1	4x4	LTE B48	20	55738	3699.8	4x4	-	-	-	-	-	-	-	23.35	21.40
CA_48C-48A	LTE B48	20	56223	3648.3	QPSK	25	0	56223	3648.3	2x2	LTE B48	20	56079	3633.9	2x2	LTE B48	20	55340	3660	4x4	-	-	-	-	-	-	-	-	-	-	-	-	23.39	21.40
CA_48C-48A	LTE B48	20	56223	3648.3	QPSK	25	0	56223	3648.3	4x4	LTE B48	20	56079	3633.9	4x4	LTE B48	20	55340	3660	2x2	LTE B48	20	55338	3679.8	2x2	-	-	-	-	-	-	-	23.38	21.40
CA_48C-48A	LTE B48	20	56223	3648.3	QPSK	25	0	56223	3648.3	4x4	LTE B48	20	56079	3633.9	4x4	LTE B48	20	55340	3660	4x4	LTE B48	20	55338	3679.8	4x4	-	-	-	-	-	-	-	23.41	21.40
CA_48C-48C	LTE B48	20	56223	3648.3	QPSK	25	0	56223	3648.3	4x4	LTE B48	20	56079	3633.9	4x4	LTE B48	20	55881	3614.1	4x4	LTE B48	20	55881	3614.1	4x4	-	-	-	-	-	-	-	23.37	21.40
CA_48C-48C	LTE B48	20	56223	3648.3	QPSK	25	0	56223	3648.3	2x2	LTE B48	20	56079	3633.9	2x2	LTE B48	20	55340	3660	4x4	LTE B48	20	55538	3679.8	4x4	-	-	-	-	-	-	-	21.04	21.40
CA_48C-48C	LTE B48	20	56223	3648.3	QPSK	25	0	56223	3648.3	4x4	LTE B48	20	56079	3633.9	4x4	LTE B48	20	55881	3614.1	4x4	LTE B48	20	55538	3679.8	4x4	-	-	-	-	-	-	-	21.09	21.40
CA_48C-48C	LTE B48	20	56223	3648.3	QPSK	25	0	56223	3648.3	4x4	LTE B48	20	56079	3633.9	4x4	LTE B48	20	55340	3660	2x2	LTE B48	20	55538	3679.8	2x2	-	-	-	-	-	-	-	21.35	21.40
CA_48C-48C	LTE B48	20	56223	3648.3	QPSK	25	0	56223	3648.3	2x2	LTE B48	20	56079	3633.9	2x2	LTE B48	20	55881	3614.1	2x2	LTE B48	20	55640	3690	4x4	-	-	-	-	-	-	-	21.30	21.40
CA_48C-48C	LTE B48	20	56223	3648.3	QPSK	25	0	56223	3648.3	4x4	LTE B48	20	56079	3633.9	4x4	LTE B48	20	55340	3660	4x4	LTE B48	20	55538	3679.8	4x4	-	-	-	-	-	-	-	21.38	21.40
CA_48C-48C	LTE B48	20	56223	3648.3	QPSK	25	0	56223	3648.3	4x4	LTE B48	20	56079	3633.9	4x4	LTE B48	20	55881	3614.1	4x4	LTE B48	20	55640	3690	4x4	-	-	-	-	-	-	-	21.43	21.40
CA_48C-48C	LTE B48	20	56223	3648.3	QPSK	25	0	56223	3648.3	4x4	LTE B48	20	56079	3633.9	4x4	LTE B48	20	55881	3614.1	4x4	LTE B48	20	55640	3690	4x4	-	-	-	-	-	-	-	21.39	21.40

I.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_5B, CA_66B, CA_66C, CA_41C, or CA_48C ULCA active.

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

Table I-24
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 [UL] Ch.	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 [DL] Channel	SCC [DL] Freq. [MHz]	SCC Band	SCC BW [MHz]	SCC [DL] Channel	SCC [DL] Freq. [MHz]	ULCA TxPower with add'l CA config. active (dBm)	ULCA Tx Power [dBm]													
CA 3B-45A	LTE B3	10	20525	836.5	QPSK	1	0	20525	881.5	LTE B5	5	20453	829.3	QPSK	1	24	2043	874.3	LTE B45	20	80085	937.5						24.43	24.43												
CA 3B-46C	LTE B5	10	20525	836.5	QPSK	1	0	20525	881.5	LTE B5	5	20453	829.3	QPSK	1	24	2053	874.3	LTE B45	20	80085	937.5	LTE B45	20	95487	9517.7		24.45	24.43												
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] Channel	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] Channel	SCC [DL] Freq. [MHz]	SCC Band	SCC BW [MHz]	SCC [DL] Channel	SCC [DL] Freq. [MHz]	ULCA TxPower with add'l CA config. active (dBm)	ULCA Tx Power [dBm]																	
CA 41C-41A	LTE B41	20	40185	2549.5	QPSK	1	0	40185	2549.5	LTE B41	20	39987	2529.7	QPSK	1	99	39987	2529.7	LTE B41	20	41450	2580			24.02	24.09															
CA 41D	LTE B41	20	40185	2549.5	QPSK	1	0	40185	2549.5	LTE B41	20	39987	2529.7	QPSK	1	99	39987	2529.7	LTE B41	20	40363	2569.3			24.06	24.09															
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 [UL] Ch.	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 [DL] Channel	SCC [DL] Freq. [MHz]	SCC Band	SCC BW [MHz]	SCC [DL] Channel	SCC [DL] Freq. [MHz]	ULCA TxPower with add'l CA config. active (dBm)	ULCA Tx Power [dBm]													
CA 48C	LTE B48	20	55207	3646.7	QPSK	1	99	55207	3646.7	LTE B48	20	55405	3666.5	QPSK	1	0	55405	3666.5	LTE B48	20	56009	3626.9					23.89	23.89													

I.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 I-25
Maximum Output Powers

Combination	PCC										SCC 1										Power	
	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 add'l CA config. active [dBm]	ULCA Tx Power [dBm]
CA [66B]	LTE B66	10	132022	1715	QPSK	1	49	66486	2115	4x4	LTE B66	10	132121	1724.9	QPSK	1	0	66585	2124.9	4x4	23.31	23.40
CA [66C]	LTE B66	20	132072	1720	QPSK	1	99	66536	2120	4x4	LTE B66	20	132270	1739.8	QPSK	1	0	66734	2139.8	4x4	23.43	23.46
Combination	PCC										SCC 1										Power	
	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 add'l CA config. active [dBm]	ULCA Tx Power [dBm]
CA [41C]	LTE B41	20	40185	2549.5	QPSK	1	0	40185	2549.5	4x4	LTE B41	20	39987	2529.7	QPSK	1	99	39987	2529.7	4x4	23.88	24.09
CA 41C-41A	LTE B41	20	40185	2549.5	QPSK	1	0	40185	2549.5	2x2	LTE B41	20	39987	2529.7	QPSK	1	99	39987	2529.7	2x2	24.04	24.09
CA 41C-41A	LTE B41	20	40185	2549.5	QPSK	1	0	40185	2549.5	4x4	LTE B41	20	39987	2529.7	QPSK	1	99	39987	2529.7	4x4	23.75	24.09
CA 41C-41A	LTE B41	20	40185	2549.5	QPSK	1	0	40185	2549.5	4x4	LTE B41	20	39987	2529.7	QPSK	1	99	39987	2529.7	4x4	23.77	24.09
CA [41D]	LTE B41	20	40185	2549.5	QPSK	1	0	40185	2549.5	4x4	LTE B41	20	39987	2529.7	QPSK	1	99	39987	2529.7	4x4	23.84	24.09
Combination	PCC										SCC 1										Power	
	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 add'l CA config. active [dBm]	ULCA Tx Power [dBm]
CA [48C]	LTE B48	20	56207	3646.7	QPSK	1	99	56207	3646.7	4x4	LTE B48	20	56405	3656.5	QPSK	1	0	56405	3656.5	4x4	20.83	20.93
CA [48D]	LTE B48	20	56207	3646.7	QPSK	1	99	56207	3646.7	4x4	LTE B48	20	56405	3656.5	QPSK	1	0	56405	3656.5	4x4	20.85	20.93
CA [48E]	LTE B48	20	56207	3646.7	QPSK	1	99	56207	3646.7	4x4	LTE B48	20	56405	3656.5	QPSK	1	0	56405	3656.5	4x4	20.90	20.93

FCC ID: A3LSMS911U	SAR EVALUATION REPORT	Approved by: Technical Manager
DUT Type: Portable Handset		APPENDIX I: Page 16 of 16