

## APPENDIX F: DOWNLINK LTE CA RF CONDUCTED POWERS

### 1.1 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 component 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 1 – Example of Exclusion Table for SISO Configurations

Index	2CC	Supported Channel Bandwidth (MHz)		Restriction	Completely Covered by Measurement Superset
		CC1	CC2		
CCC #41	CA_2C	5, 10, 15, 20	5, 10, 15, 20		CCC #4
CCC #42	CA_2A-2C	5, 10, 15, 20	5, 10, 15, 20		CCC #4
CCC #43	CA_2A-2A	5, 10, 15, 20	5, 10, 15, 20		CCC #4
CCC #44	CA_2A-2A-4A	5, 10, 15, 20	5, 10, 15, 20		CCC #4
CCC #45	CA_2A-2A-4A-12A	5, 10, 15, 20	5, 10, 15, 20		CCC #4
CCC #46	CA_2A-2A-4A-12A	5, 10, 15, 20	5, 10, 15, 20		CCC #4
CCC #47	CA_2A-2A-4A-12A	5, 10, 15, 20	5, 10, 15, 20		CCC #4
CCC #48	CA_2A-2A-4A-12A	5, 10, 15, 20	5, 10, 15, 20		CCC #4
CCC #49	CA_2A-2A-4A-12A	5, 10, 15, 20	5, 10, 15, 20		CCC #4
CCC #50	CA_2A-2A-4A-12A	5, 10, 15, 20	5, 10, 15, 20		CCC #4
CCC #51	CA_2A-2A-4A-12A	5, 10, 15, 20	5, 10, 15, 20		CCC #4
CCC #52	CA_2A-2A-4A-12A	5, 10, 15, 20	5, 10, 15, 20		CCC #4
CCC #53	CA_2A-2A-4A-12A	5, 10, 15, 20	5, 10, 15, 20		CCC #4
CCC #54	CA_2A-2A-4A-12A	5, 10, 15, 20	5, 10, 15, 20		CCC #4
CCC #55	CA_2A-2A-4A-12A	5, 10, 15, 20	5, 10, 15, 20		CCC #4
CCC #56	CA_2A-2A-4A-12A	5, 10, 15, 20	5, 10, 15, 20		CCC #4
CCC #57	CA_2A-2A-4A-12A	5, 10, 15, 20	5, 10, 15, 20		CCC #4
CCC #58	CA_2A-2A-4A-12A	5, 10, 15, 20	5, 10, 15, 20		CCC #4
CCC #59	CA_2A-2A-4A-12A	5, 10, 15, 20	5, 10, 15, 20		CCC #4
CCC #60	CA_2A-2A-4A-12A	5, 10, 15, 20	5, 10, 15, 20		CCC #4
CCC #61	CA_2A-2A-4A-12A	5, 10, 15, 20	5, 10, 15, 20		CCC #4
CCC #62	CA_2A-2A-4A-12A	5, 10, 15, 20	5, 10, 15, 20		CCC #4
CCC #63	CA_2A-2A-4A-12A	5, 10, 15, 20	5, 10, 15, 20		CCC #4
CCC #64	CA_2A-2A-4A-12A	5, 10, 15, 20	5, 10, 15, 20		CCC #4
CCC #65	CA_2A-2A-4A-12A	5, 10, 15, 20	5, 10, 15, 20		CCC #4
CCC #66	CA_2A-2A-4A-12A	5, 10, 15, 20	5, 10, 15, 20		CCC #4
CCC #67	CA_2A-2A-4A-12A	5, 10, 15, 20	5, 10, 15, 20		CCC #4
CCC #68	CA_2A-2A-4A-12A	5, 10, 15, 20	5, 10, 15, 20		CCC #4
CCC #69	CA_2A-2A-4A-12A	5, 10, 15, 20	5, 10, 15, 20		CCC #4
CCC #70	CA_2A-2A-4A-12A	5, 10, 15, 20	5, 10, 15, 20		CCC #4
CCC #71	CA_2A-2A-4A-12A	5, 10, 15, 20	5, 10, 15, 20		CCC #4
CCC #72	CA_2A-2A-4A-12A	5, 10, 15, 20	5, 10, 15, 20		CCC #4
CCC #73	CA_2A-2A-4A-12A	5, 10, 15, 20	5, 10, 15, 20		CCC #4
CCC #74	CA_2A-2A-4A-12A	5, 10, 15, 20	5, 10, 15, 20		CCC #4
CCC #75	CA_2A-2A-4A-12A	5, 10, 15, 20	5, 10, 15, 20		CCC #4
CCC #76	CA_2A-2A-4A-12A	5, 10, 15, 20	5, 10, 15, 20		CCC #4
CCC #77	CA_2A-2A-4A-12A	5, 10, 15, 20	5, 10, 15, 20		CCC #4
CCC #78	CA_2A-2A-4A-12A	5, 10, 15, 20	5, 10, 15, 20		CCC #4
CCC #79	CA_2A-2A-4A-12A	5, 10, 15, 20	5, 10, 15, 20		CCC #4
CCC #80	CA_2A-2A-4A-12A	5, 10, 15, 20	5, 10, 15, 20		CCC #4
CCC #81	CA_2A-2A-4A-12A	5, 10, 15, 20	5, 10, 15, 20		CCC #4
CCC #82	CA_2A-2A-4A-12A	5, 10, 15, 20	5, 10, 15, 20		CCC #4
CCC #83	CA_2A-2A-4A-12A	5, 10, 15, 20	5, 10, 15, 20		CCC #4
CCC #84	CA_2A-2A-4A-12A	5, 10, 15, 20	5, 10, 15, 20		CCC #4
CCC #85	CA_2A-2A-4A-12A	5, 10, 15, 20	5, 10, 15, 20		CCC #4
CCC #86	CA_2A-2A-4A-12A	5, 10, 15, 20	5, 10, 15, 20		CCC #4
CCC #87	CA_2A-2A-4A-12A	5, 10, 15, 20	5, 10, 15, 20		CCC #4
CCC #88	CA_2A-2A-4A-12A	5, 10, 15, 20	5, 10, 15, 20		CCC #4
CCC #89	CA_2A-2A-4A-12A	5, 10, 15, 20	5, 10, 15, 20		CCC #4
CCC #90	CA_2A-2A-4A-12A	5, 10, 15, 20	5, 10, 15, 20		CCC #4
CCC #91	CA_2A-2A-4A-12A	5, 10, 15, 20	5, 10, 15, 20		CCC #4
CCC #92	CA_2A-2A-4A-12A	5, 10, 15, 20	5, 10, 15, 20		CCC #4
CCC #93	CA_2A-2A-4A-12A	5, 10, 15, 20	5, 10, 15, 20		CCC #4
CCC #94	CA_2A-2A-4A-12A	5, 10, 15, 20	5, 10, 15, 20		CCC #4
CCC #95	CA_2A-2A-4A-12A	5, 10, 15, 20	5, 10, 15, 20		CCC #4
CCC #96	CA_2A-2A-4A-12A	5, 10, 15, 20	5, 10, 15, 20		CCC #4
CCC #97	CA_2A-2A-4A-12A	5, 10, 15, 20	5, 10, 15, 20		CCC #4
CCC #98	CA_2A-2A-4A-12A	5, 10, 15, 20	5, 10, 15, 20		CCC #4
CCC #99	CA_2A-2A-4A-12A	5, 10, 15, 20	5, 10, 15, 20		CCC #4
CCC #100	CA_2A-2A-4A-12A	5, 10, 15, 20	5, 10, 15, 20		CCC #4
CCC #101	CA_2A-2A-4A-12A	5, 10, 15, 20	5, 10, 15, 20		CCC #4
CCC #102	CA_2A-2A-4A-12A	5, 10, 15, 20	5, 10, 15, 20		CCC #4
CCC #103	CA_2A-2A-4A-12A	5, 10, 15, 20	5, 10, 15, 20		CCC #4
CCC #104	CA_2A-2A-4A-12A	5, 10, 15, 20	5, 10, 15, 20		CCC #4
CCC #105	CA_2A-2A-4A-12A	5, 10, 15, 20	5, 10, 15, 20		CCC #4
CCC #106	CA_2A-2A-4A-12A	5, 10, 15, 20	5, 10, 15, 20		CCC #4
CCC #107	CA_2A-2A-4A-12A	5, 10, 15, 20	5, 10, 15, 20		CCC #4
CCC #108	CA_2A-2A-4A-12A	5, 10, 15, 20	5, 10, 15, 20		CCC #4
CCC #109	CA_2A-2A-4A-12A	5, 10, 15, 20	5, 10, 15, 20		CCC #4
CCC #110	CA_2A-2A-4A-12A	5, 10, 15, 20	5, 10, 15, 20		CCC #4
CCC #111	CA_2A-2A-4A-12A	5, 10, 15, 20	5, 10, 15, 20		CCC #4
CCC #112	CA_2A-2A-4A-12A	5, 10, 15, 20	5, 10, 15, 20		CCC #4
CCC #113	CA_2A-2A-4A-12A	5, 10, 15, 20	5, 10, 15, 20		CCC #4
CCC #114	CA_2A-2A-4A-12A	5, 10, 15, 20	5, 10, 15, 20		CCC #4
CCC #115	CA_2A-2A-4A-12A	5, 10, 15, 20	5, 10, 15, 20		CCC #4
CCC #116	CA_2A-2A-4A-12A	5, 10, 15, 20	5, 10, 15, 20		CCC #4
CCC #117	CA_2A-2A-4A-12A	5, 10, 15, 20	5, 10, 15, 20		CCC #4
CCC #118	CA_2A-2A-4A-12A	5, 10, 15, 20	5, 10, 15, 20		CCC #4
CCC #119	CA_2A-2A-4A-12A	5, 10, 15, 20	5, 10, 15, 20		CCC #4
CCC #120	CA_2A-2A-4A-12A	5, 10, 15, 20	5, 10, 15, 20		CCC #4
CCC #121	CA_2A-2A-4A-12A	5, 10, 15, 20	5, 10, 15, 20		CCC #4
CCC #122	CA_2A-2A-4A-12A	5, 10, 15, 20	5, 10, 15, 20		CCC #4
CCC #123	CA_2A-2A-4A-12A	5, 10, 15, 20	5, 10, 15, 20		CCC #4
CCC #124	CA_2A-2A-4A-12A	5, 10, 15, 20	5, 10, 15, 20		CCC #4
CCC #125	CA_2A-2A-4A-12A	5, 10, 15, 20	5, 10, 15, 20		CCC #4
CCC #126	CA_2A-2A-4A-12A	5, 10, 15, 20	5, 10, 15, 20		CCC #4
CCC #127	CA_2A-2A-4A-12A	5, 10, 15, 20	5, 10, 15, 20		CCC #4
CCC #128	CA_2A-2A-4A-12A	5, 10, 15, 20	5, 10, 15, 20		CCC #4
CCC #129	CA_2A-2A-4A-12A	5, 10, 15, 20	5, 10, 15, 20		CCC #4
CCC #130	CA_2A-2A-4A-12A	5, 10, 15, 20	5, 10, 15, 20		CCC #4
CCC #131	CA_2A-2A-4A-12A	5, 10, 15, 20	5, 10, 15, 20		CCC #4
CCC #132	CA_2A-2A-4A-12A	5, 10, 15, 20	5, 10, 15, 20		CCC #4
CCC #133	CA_2A-2A-4A-12A	5, 10, 15, 20	5, 10, 15, 20		CCC #4
CCC #134	CA_2A-2A-4A-12A	5, 10, 15, 20	5, 10, 15, 20		CCC #4
CCC #135	CA_2A-2A-4A-12A	5, 10, 15, 20	5, 10, 15, 20		CCC #4
CCC #136	CA_2A-2A-4A-12A	5, 10, 15, 20	5, 10, 15, 20		CCC #4
CCC #137	CA_2A-2A-4A-12A	5, 10, 15, 20	5, 10, 15, 20		CCC #4
CCC #138	CA_2A-2A-4A-12A	5, 10, 15, 20	5, 10, 15, 20		CCC #4
CCC #139	CA_2A-2A-4A-12A	5, 10, 15, 20	5, 10, 15, 20		CCC #4
CCC #140	CA_2A-2A-4A-12A	5, 10, 15, 20	5, 10, 15, 20		CCC #4
CCC #141	CA_2A-2A-4A-12A	5, 10, 15, 20	5, 10, 15, 20		CCC #4
CCC #142	CA_2A-2A-4A-12A	5, 10, 15, 20	5, 10, 15, 20		CCC #4
CCC #143	CA_2A-2A-4A-12A	5, 10, 15, 20	5, 10, 15, 20		CCC #4
CCC #144	CA_2A-2A-4A-12A	5, 10, 15, 20	5, 10, 15, 20		CCC #4
CCC #145	CA_2A-2A-4A-12A	5, 10, 15, 20	5, 10, 15, 20		CCC #4
CCC #146	CA_2A-2A-4A-12A	5, 10, 15, 20	5, 10, 15, 20		CCC #4
CCC #147	CA_2A-2A-4A-12A	5, 10, 15, 20	5, 10, 15, 20		CCC #4
CCC #148	CA_2A-2A-4A-12A	5, 10, 15, 20	5, 10, 15, 20		CCC #4
CCC #149	CA_2A-2A-4A-12A	5, 10, 15, 20	5, 10, 15, 20		CCC #4
CCC #150	CA_2A-2A-4A-12A	5, 10, 15, 20	5, 10, 15, 20		CCC #4
CCC #151	CA_2A-2A-4A-12A	5, 10, 15, 20	5, 10, 15, 20		CCC #4
CCC #152	CA_2A-2A-4A-12A	5, 10, 15, 20	5, 10, 15, 20		CCC #4
CCC #153	CA_2A-2A-4A-12A	5, 10, 15, 20	5, 10, 15, 20		CCC #4
CCC #154	CA_2A-2A-4A-12A	5, 10, 15, 20	5, 10, 15, 20		CCC #4
CCC #155	CA_2A-2A-4A-12A	5, 10, 15, 20	5, 10, 15, 20		CCC #4
CCC #156	CA_2A-2A-4A-12A	5, 10, 15, 20	5, 10, 15, 20		CCC #4
CCC #157	CA_2A-2A-4A-12A	5, 10, 15, 20	5, 10, 15, 20		CCC #4
CCC #158	CA_2A-2A-4A-12A	5, 10, 15, 20	5, 10, 15, 20		CCC #4
CCC #159	CA_2A-2A-4A-12A	5, 10, 15, 20	5, 10, 15, 20		CCC #4
CCC #160	CA_2A-2A-4A-12A	5, 10, 15, 20	5, 10, 15, 20		CCC #4
CCC #161	CA_2A-2A-4A-12A	5, 10, 15, 20	5, 10, 15, 20		CCC #4
CCC #162	CA_2A-2A-4A-12A	5, 10, 15, 20	5, 10, 15, 20		CCC #4
CCC #163	CA_2A-2A-4A-12A	5, 10, 15, 20	5, 10, 15, 20		CCC #4
CCC #164	CA_2A-2A-4A-12A	5, 10, 15, 20	5, 10, 15, 20		CCC #4
CCC #165	CA_2A-2A-4A-12A	5, 10, 15, 20	5, 10, 15, 20		CCC #4
CCC #166	CA_2A-2A-4A-12A	5, 10, 15, 20	5, 10, 15, 20		CCC #4
CCC #167	CA_2A-2A-4A-12A	5, 10, 15, 20	5, 10, 15, 20		CCC #4
CCC #168	CA_2A-2A-4A-12A	5, 10, 15, 20	5, 10, 15, 20		CCC #4
CCC #169	CA_2A-2A-4A-12A	5, 10, 15, 20	5, 10, 15, 20		CCC #4
CCC #170	CA_2A-2A-4A-				

## 1.2 LTE Downlink Only Carrier Aggregation Test Selection and Setup

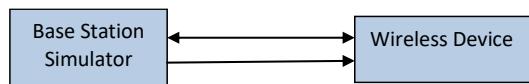
SAR test exclusion for LTE downlink Carrier Aggregation is determined by power measurements according to the number component carriers (CCs) supported by the product implementation. For those configurations required by April 2018 TCBC Workshop Notes, conducted power measurements with LTE Carrier Aggregation (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.

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.

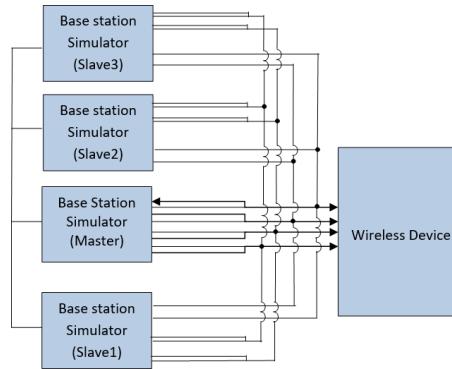
General PCC and SCC configuration selection procedure

- PCC uplink channel, channel bandwidth, modulation and RB configurations were selected based on section C(3)b)ii) of KDB 941225 D05 V01r02. 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 1**  
**DL CA Power Measurement Setup**

FCC ID: PY7-57441Y	 <b>PCTEST</b> Proud to be part of 	SAR EVALUATION REPORT		Reviewed by: Quality Manager
Test Dates: 08/23/20 - 09/16/20	DUT Type: Portable Handset			APPENDIX F: Page 2 of 9



**Figure 2**  
**DL CA with DL 4x4 MIMO Power Measurement Setup**

## 1.3 Downlink Carrier Aggregation RF Conducted Powers

### 1.3.1 LTE Band 12 as PCC

**Table 1**  
**Maximum Output Powers**

Combination	PCC						SCC 1			SCC 2			SCC 3			SCC 4			Power				
	PCC Band	PCC BW [MHz]	PCC (UL) Ch.	PCC (UL) Freq. [MHz]	Mod.	PCC UL/Freq.	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 Co-located [dBm]	LTE Single Carrier Tx Power [dBm]
CA_2A-12A(1)	LTE B12	5	23095	70.5	QPSK	1	0	5095	737.5	LTE B2	20	900	1960	-	-	-	-	-	-	-	-	24.43	24.20
CA_4A-12A(1)	LTE B12	5	23095	70.5	QPSK	1	0	5095	737.5	LTE B4	20	2175	2132.5	-	-	-	-	-	-	-	-	24.15	24.20
CA_12A-12A(1)	LTE B12	5	23095	70.5	QPSK	1	0	5095	737.5	LTE B12	20	2175	2132.5	-	-	-	-	-	-	-	-	24.15	24.20
CA_12A-12A(2)	LTE B12	5	23095	70.5	QPSK	1	0	5095	737.5	LTE B6	20	66785	2145	-	-	-	-	-	-	-	-	24.35	24.20
CA_12B	LTE B12	5	23095	70.5	QPSK	1	0	5095	737.5	LTE B6	20	66785	2145	-	-	-	-	-	-	-	-	24.35	24.20
CA_2A	LTE B12	5	23095	70.5	QPSK	1	0	5095	737.5	LTE B12	5	5047	732.7	-	-	-	-	-	-	-	-	24.26	24.20
CA_4A-12A	LTE B12	5	23095	70.5	QPSK	1	0	5095	737.5	LTE B2	20	900	1960	-	-	-	-	-	-	-	-	24.16	24.20
CA_4A-12A(2)	LTE B12	5	23095	70.5	QPSK	1	0	5095	737.5	LTE B4	20	2175	2132.5	-	-	-	-	-	-	-	-	24.16	24.20
CA_12A-12B	LTE B12	5	23095	70.5	QPSK	1	0	5095	737.5	LTE B20	20	66954	2145	LTE B66	20	66785	2145	LTE B66	20	66785	2145	2164.8	24.20
CA_12A-12B-6BA-6BA	LTE B12	5	23095	70.5	QPSK	1	0	5095	737.5	LTE B2	20	900	1960	LTE B20	20	700	1940	LTE B66	20	66785	2145	2164.8	24.20

### 1.3.2 LTE Band 13 as PCC

**Table 2**  
**Maximum Output Powers**

FCC ID: PY7-57441Y	 Proud to be part of 	SAR EVALUATION REPORT		Reviewed by: Quality Manager
Test Dates: 08/23/20 - 09/16/20	DUT Type: Portable Handset			APPENDIX F: Page 3 of 9

### 1.3.3 LTE Band 66 as PCC

**Table 3**  
**Maximum Output Powers**

### 1.3.4 LTE Band 7 as PCC

**Table 4**  
**Maximum Output Powers**

Combination	Maximum Output Powers										Power																
	PCC					SCC 1					SCC 2					SCC 3					SCC 4						
PCC Band	PCC BW [MHz]	PCC [UL] Ch.	PCC [UL] Freq. [MHz]	Mod.	PCC ULL RB Offset	PCC UL RB	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]	LTE TxPower with OK CW Enabled [dBm]	LTE Single Carrier Tx Power [dBm]	
CA, 5A-7A	LTE B7	5	28000	2505	640MM	1	0	2800	2655	LTE B6	10	2625	881.5	-	-	-	-	-	-	-	-	-	-	-	-	-	
CA, 7A-4A(1)	LTE B7	5	20775	2505	640MM	1	12	2775	2625.5	LTE B6	20	50685	637.5	-	-	-	-	-	-	-	-	-	-	-	-	-	
CA, 2A-4A(7)	LTE B7	5	20775	2502.5	640MM	1	12	2775	2625.5	LTE B2	20	900	1960	LTE B4	20	2175	2132.5	-	-	-	-	-	-	-	-	-	
CA, 2A-7A-7A	LTE B7	5	20775	2502.5	640MM	1	12	2775	2625.5	LTE B7	20	3350	1960	LTE B2	20	190	1960	-	-	-	-	-	-	-	-	-	
CA, 2A(7C)	LTE B7	10	28000	2505	640MM	1	0	2800	2655	LTE B7	20	2944	2604.4	LTE B6	20	900	1960	-	-	-	-	-	-	-	-	-	
CA, 2A(7A)	LTE B7	10	20775	2505	640MM	1	12	2775	2625	LTE B7	20	2944	2604.4	LTE B4	20	2175	2132.5	-	-	-	-	-	-	-	-	-	
CA, 4A-7C	LTE B7	10	20800	2505	640MM	1	0	2800	2620	LTE B7	20	2944	2604.4	LTE B4	20	2175	2132.5	-	-	-	-	-	-	-	-	-	
CA, 5A-7A-7A	LTE B7	10	20800	2505	640MM	1	0	2800	2625	LTE B7	20	3350	1960	LTE B6	10	2525	881.5	-	-	-	-	-	-	-	-	-	
CA, 5A-7C	LTE B7	10	20800	2505	640MM	1	0	2800	2625	LTE B7	20	2944	2604.4	LTE B4	10	2525	881.5	-	-	-	-	-	-	-	-	-	
CA, 7A-7A-6A(4)	LTE B7	5	20775	2502.5	640MM	1	12	2775	2625.5	LTE B7	20	3350	1960	LTE B4	20	50685	557.5	-	-	-	-	-	-	-	-	-	
CA, 7A-6A(4)-6A(1)	LTE B7	5	20775	2502.5	640MM	1	12	2775	2625.5	LTE B6	20	66786	2145	LTE B6	20	6236	2190	-	-	-	-	-	-	-	-	-	
CA, 7A-6B(4)-6A(1)	LTE B7	5	20775	2502.5	640MM	1	12	2775	2625.5	LTE B6	20	50685	637.5	LTE B6	20	50467	5517.7	LTE B4	20	50683	5607.3	-	-	-	-	-	-
CA, 7A-6E(6)	LTE B7	5	20775	2502.5	640MM	1	12	2775	2625.5	LTE B6	20	50685	535.5	LTE B6	20	50467	5317.7	LTE B4	20	50683	5557.3	LTE B4	20	51061	5577.1	-	
CA, 7A-6E(6)	LTE B7	5	20775	2502.5	640MM	1	12	2775	2625.5	LTE B6	20	50685	535.5	LTE B6	20	50467	5317.7	LTE B4	20	50683	5557.3	LTE B4	20	51061	5577.1	-	

### 1.3.5 LTE Band 41 as PCC

**Table 5**  
**Maximum Output Powers**

Combination	PCC						SCC 1			SCC 2			SCC 3			SCC 4			Power				
	PCC Band	PCC BW [MHz]	PCC (UL) Ch.	PCC (UL) Freq. [MHz]	Mod.	PCC UL/Freq.	PCC UL/RB Offset	PCC (DL) Channel	PCC (DL) Freq. [MHz]	SCC Band	SCC BW [MHz]	SCC (DL) Freq. [MHz]	SCC Band	SCC BW [MHz]	SCC (DL) Freq. [MHz]	SCC Band	SCC BW [MHz]	SCC (DL) Freq. [MHz]	SCC Band	SCC BW [MHz]	SCC (DL) Freq. [MHz]	LTE Tx Power with DL Co-Channel [dBm]	LTE Single Carrier Tx Power [dBm]
CA_41A-46A	LTE B41	5	41490	2680	QPSK	1	24	41490	2880	LTE B46	20	50665	5937.5	-	-	-	-	-	-	-	-	14.80	14.80
CA_41C (1)	LTE B41	5	41490	2680	QPSK	1	24	41490	2880	LTE B41	20	41373	2696.8	-	-	-	-	-	-	-	-	14.79	14.80
CA_41C (2)	LTE B41	5	41490	2680	QPSK	1	24	41490	2880	LTE B41	20	50665	5937.5	-	-	-	-	-	-	-	-	14.80	14.80
CA_41D	LTE B41	10	41490	2680	16QAM	1	24	41490	2880	LTE B46	20	50665	5937.5	LTE B41	20	50667	5917.7	-	-	-	-	14.80	14.71
CA_41A-46D	LTE B41	5	41490	2680	QPSK	1	24	41490	2880	LTE B46	20	50665	5937.5	LTE B41	20	41448	2645.8	-	-	-	-	14.80	14.71
CA_41A-46D	LTE B41	5	41490	2680	QPSK	1	24	41490	2880	LTE B46	20	50665	5937.5	LTE B41	20	50667	5917.7	LTE B46	20	50583	5907.3	14.82	14.80



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**Test Dates:**  
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### 1.3.6 LTE Band 48 as PCC

**Table 6**  
**Maximum Output Powers**

Combination	PCC										SCC 1										SCC 2										Power	
	PCC Band	PCC BW [MHz]	PCC (UL) Ch.	PCC (UL) Freq. [MHz]	Mod.	PCC ULP 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]	LTE Tx-Power with DL CA Enabled [dBm]	LTE Single Carrier Tx Power [dBm]					
CA_48A-48A	LTE B48	5	56232	3649.2	16QAM	1	0	56232	3649.2	LTE B48	20	562340	3660	-	-	-	-	-	-	-	-	-	-	-	-	-	-	14.37	14.37			
CA_48E	LTE B48	5	56232	3649.2	16QAM	1	0	56232	3649.2	LTE B48	20	561115	3637.5	LTE B48	20	559117	3617.7	LTE B48	20	557119	3597.9	-	-	-	-	-	-	14.42	14.37			
CA_48C-48D	LTE B48	5	56232	3649.2	16QAM	1	0	56232	3649.2	LTE B48	20	561115	3637.5	LTE B48	20	553401	3560	LTE B48	20	553388	3579.8	LTE B48	20	557386	3599.6	14.43	14.37					
CA_48D-48C	LTE B48	5	56232	3649.2	16QAM	1	0	56232	3649.2	LTE B48	20	561115	3637.5	LTE B48	20	559117	3617.7	LTE B48	20	566440	3690	LTE B48	20	564423	3670.2	14.44	14.37					

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## 1.4 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 1.2 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.

### 1.4.1 LTE 4x4 MIMO DL Standalone Powers

Table 7  
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]
66	3	131987	1711.5	64QAM	1	7	16.44	16.43
7	5	20775	2502.5	64QAM	1	12	16.54	16.39
41	5	41490	2680	QPSK	1	24	14.83	14.80
48	5	56232	3649.2	16QAM	1	0	14.38	14.37

### 1.4.2 LTE Band 12 as PCC

Table 8  
Maximum Output Powers

Combination	PCC						SCC 1			SCC 2			SCC 3			Power																
	PCC Band	PCC BW [MHz]	PCC (UL) Ch.	PCC (U) 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 DI CA Enabled (dBm)	LTE Single Carrier Tx Power (dBm)					
CA_ [2A]-12A (1)	LTE B12	5	23095	707.5	QPSK	1	0	5095	737.5	2x2	LTE B2	20	900	1960	4x4	-	-	-	-	-	-	-	-	-	-	24.40	24.20					
CA_ [4A]-12A (1)	LTE B12	5	23095	707.5	QPSK	1	0	5095	737.5	2x2	LTE B4	20	2175	2132.5	4x4	-	-	-	-	-	-	-	-	-	-	23.91	24.20					
CA_ [4A]-12A (2)	LTE B12	5	23095	707.5	QPSK	1	0	5095	737.5	2x2	LTE B4	20	2175	2132.5	4x4	-	-	-	-	-	-	-	-	-	-	23.91	24.20					
CA_ [4A]-12A (3)	LTE B12	5	23095	707.5	QPSK	1	0	5095	737.5	2x2	LTE B6	20	66786	2145	4x4	-	-	-	-	-	-	-	-	-	-	23.91	24.20					
CA_ [2A]-[6A] (2)	LTE B12	5	23095	707.5	QPSK	1	0	5095	737.5	2x2	LTE B6	20	66786	2145	4x4	-	-	-	-	-	-	-	-	-	-	23.91	24.20					
CA_ [2A]-2A-12A	LTE B12	5	23095	707.5	QPSK	1	0	5095	737.5	2x2	LTE B2	20	900	1960	4x4	LTE B2	20	700	1940	2x2	-	-	-	-	-	-	-	-	24.43	24.20		
CA_ [2A]-2A-12A	LTE B12	5	23095	707.5	QPSK	1	0	5095	737.5	2x2	LTE B2	20	900	1960	4x4	LTE B4	20	2175	2132.5	2x2	-	-	-	-	-	-	-	-	24.43	24.20		
CA_ [2A]-[4A]-12A	LTE B12	5	23095	707.5	QPSK	1	0	5095	737.5	2x2	LTE B2	20	900	1960	4x4	LTE B2	20	2175	2132.5	4x4	-	-	-	-	-	-	-	-	24.43	24.20		
CA_ [2A]-[4A]-12A	LTE B12	5	23095	707.5	QPSK	1	0	5095	737.5	2x2	LTE B2	20	900	1960	4x4	LTE B4	20	2175	2132.5	4x4	-	-	-	-	-	-	-	-	24.43	24.20		
CA_ [2A]-12A-66A	LTE B12	5	23095	707.5	QPSK	1	0	5095	737.5	2x2	LTE B2	20	900	1960	4x4	LTE B6	20	66786	2145	2x2	-	-	-	-	-	-	-	-	24.10	24.20		
CA_ [2A]-12A-66A	LTE B12	5	23095	707.5	QPSK	1	0	5095	737.5	2x2	LTE B2	20	900	1960	4x4	LTE B6	20	66786	2145	2x2	-	-	-	-	-	-	-	-	24.10	24.20		
CA_ [2A]-12A-66A	LTE B12	5	23095	707.5	QPSK	1	0	5095	737.5	2x2	LTE B2	20	900	1960	4x4	LTE B6	20	66786	2145	4x4	-	-	-	-	-	-	-	-	24.06	24.20		
CA_ [2A]-12A-66A	LTE B12	5	23095	707.5	QPSK	1	0	5095	737.5	2x2	LTE B2	20	900	1960	2x2	LTE B6	20	66786	2145	4x4	-	-	-	-	-	-	-	-	24.06	24.20		
CA_ [2A]-12A-66A	LTE B12	5	23095	707.5	QPSK	1	0	5095	737.5	2x2	LTE B4	20	2175	2132.5	4x4	LTE B4	10	2350	2150	2x2	3	-	-	-	-	-	-	-	24.06	24.20		
CA_ [4A]-12A-66A	LTE B12	5	23095	707.5	QPSK	1	0	5095	737.5	2x2	LTE B4	20	2175	2132.5	4x4	LTE B4	10	2350	2150	4x4	-	-	-	-	-	-	-	-	24.06	24.20		
CA_ [2A]-[6A]-66A	LTE B12	5	23095	707.5	QPSK	1	0	5095	737.5	2x2	LTE B6	20	66786	2145	4x4	LTE B6	20	67236	2190	2x2	-	-	-	-	-	-	-	-	24.03	24.20		
CA_ [2A]-[66]-66A	LTE B12	5	23095	707.5	QPSK	1	0	5095	737.5	2x2	LTE B6	20	66786	2145	4x4	LTE B6	20	66984	2164.8	4x4	-	-	-	-	-	-	-	-	24.07	24.20		
CA_ [2A]-[2A]-[12A]-[66A]	LTE B12	5	23095	707.5	QPSK	1	0	5095	737.5	2x2	LTE B2	20	900	1940	4x4	LTE B2	20	66786	2145	4x4	LTE B6	20	66786	2145	4x4	LTE B6	20	67236	2190	4x4	24.08	24.20
CA_ [2A]-[12A]-[66A]-[66A]	LTE B12	5	23095	707.5	QPSK	1	0	5095	737.5	2x2	LTE B2	20	900	1960	4x4	LTE B6	20	66786	2145	4x4	LTE B6	20	66786	2145	4x4	LTE B6	20	67236	2190	4x4	24.08	24.20

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### 1.4.3 LTE Band 13 as PCC

**Table 9**  
**Maximum Output Powers**



SAR EVALUATION REPORT

**SONY**

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Quality Manager

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#### 1.4.4 LTE Band 66 as PCC

**Table 10**  
**Maximum Output Powers**

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## 1.4.5 LTE Band 7 as PCC

**Table 11**  
**Maximum Output Powers**

Combination	PCC										SCC 1				SCC 2				SCC 3				SCC 4				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 (DL) Ch.	SCC (UL) Freq. [MHz]	Dl. Ant. Config.	SCC Band	SCC BW [MHz]	SCC (DL) Ch.	SCC (UL) Freq. [MHz]	Dl. Ant. Config.	SCC Band	SCC BW [MHz]	SCC (DL) Ch.	SCC (UL) Freq. [MHz]	Dl. Ant. Config.	LTE Tx. Power with DL CA Enabled (dBm)	LTE Single Carrier Tx. Power (dBm)			
CA_2A-[7A]	LTE B7	5	20775	2502.5	64QAM	1	12	2775	2622.5	4x4	LTE B9	20	900	1960	2x2	-	-	-	-	-	-	-	-	-	-	16.46	16.39			
CA_5A-[7A]	LTE B7	10	20800	2505	64QAM	1	0	2805	2625	4x4	LTE B9	10	2525	881.5	2x2	-	-	-	-	-	-	-	-	-	-	16.57	16.33			
CA_[7A]-[7A](1)	LTE B7	5	20775	2502.5	64QAM	1	12	2775	2622.5	4x4	LTE B7	20	3350	2880	4x4	-	-	-	-	-	-	-	-	-	-	16.51	16.39			
CA_[7A]-[7A](2)	LTE B7	5	20775	2502.5	64QAM	1	12	2775	2622.5	4x4	LTE B7	20	3350	2880	4x4	-	-	-	-	-	-	-	-	-	-	16.50	16.39			
CA_[4A]-[7A]-[7A]	LTE B7	5	20775	2502.5	64QAM	1	12	2775	2622.5	2x2	LTE B7	20	3350	2880	2x2	LTE B4	20	2175	2132.5	4x4	-	-	-	-	-	-	-	-	16.51	16.39
CA_[4A]-[7C]	LTE B7	10	20600	2505	64QAM	1	0	2800	2625	4x4	LTE B7	20	2944	2639.4	4x4	LTE B4	20	2175	2132.5	4x4	-	-	-	-	-	-	-	-	16.30	16.33
CA_5A-[7A]-[7A]	LTE B7	10	20800	2505	64QAM	1	0	2800	2625	4x4	LTE B7	20	3350	2880	2x2	LTE B5	10	2525	881.5	2x2	-	-	-	-	-	-	-	-	16.37	16.33
CA_5A-[7A]-[7A]	LTE B7	10	20800	2505	64QAM	1	0	2800	2625	2x2	LTE B7	20	3350	2880	4x4	LTE B5	10	2525	881.5	2x2	-	-	-	-	-	-	-	16.49	16.33	
CA_[7A]-[4B]-[1]	LTE B7	5	20775	2502.5	64QAM	1	12	2775	2622.5	4x4	LTE B4	20	50685	5337.5	2x2	LTE B4	20	194047	5317.7	2x2	-	-	-	-	-	-	-	16.49	16.30	
CA_[7A]-[4B]-[1]	LTE B7	5	20775	2502.5	64QAM	1	12	2775	2622.5	4x4	LTE B4	20	50685	5337.5	2x2	LTE B4	20	194047	5317.7	2x2	LTE B4	20	50683	5357.3	2x2	-	-	16.47	16.30	
CA_[7A]-[4E]	LTE B7	5	20775	2502.5	64QAM	1	12	2775	2622.5	4x4	LTE B4	20	50685	5337.5	2x2	LTE B4	20	50687	5517.7	2x2	LTE B4	20	51061	5577.1	2x2	-	-	16.57	16.39	

## 1.4.6 LTE Band 41 as PCC

**Table 12**  
**Maximum Output Powers**

Combination	PCC										SCC 1				SCC 2				SCC 3				SCC 4				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 (DL) Ch.	SCC (UL) Freq. [MHz]	Dl. Ant. Config.	SCC Band	SCC BW [MHz]	SCC (DL) Ch.	SCC (UL) Freq. [MHz]	Dl. Ant. Config.	SCC Band	SCC BW [MHz]	SCC (DL) Ch.	SCC (UL) Freq. [MHz]	Dl. Ant. Config.	LTE Tx. Power with DL CA Enabled (dBm)	LTE Single Carrier Tx. Power (dBm)		
CA_[41C] (1)	LTE B41	5	41490	2680	QPSK	1	24	41490	2680	4x4	LTE B41	20	41373	2668.3	4x4	-	-	-	-	-	-	-	-	-	-	14.78	14.80		
CA_[41D]	LTE B41	10	41490	2680	16QAM	1	49	41490	2680	4x4	LTE B41	20	41346	2665.6	4x4	LTE B41	20	41148	2645.8	4x4	-	-	-	-	-	-	-	14.73	14.73

## 1.4.7 LTE Band 48 as PCC

**Table 13**  
**Maximum Output Powers**

Combination	PCC										SCC 1				SCC 2				SCC 3				SCC 4				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 (DL) Ch.	SCC (UL) Freq. [MHz]	Dl. Ant. Config.	SCC Band	SCC BW [MHz]	SCC (DL) Ch.	SCC (UL) Freq. [MHz]	Dl. Ant. Config.	SCC Band	SCC BW [MHz]	SCC (DL) Ch.	SCC (UL) Freq. [MHz]	Dl. Ant. Config.	LTE Tx. Power with DL CA Enabled (dBm)	LTE Single Carrier Tx. Power (dBm)		
CA_4B4-[4B4]	LTE B48	5	56232	3649.2	16QAM	1	0	56232	3649.2	2x2	LTE B48	20	55340	3560	4x4	-	-	-	-	-	-	-	-	-	-	-	14.41	14.37	
CA_4B4-[4B4]	LTE B48	5	56232	3649.2	16QAM	1	0	56232	3649.2	4x4	LTE B48	20	55340	3560	2x2	LTE B48	20	55340	3560	4x4	-	-	-	-	-	-	-	14.40	14.37
CA_4B4-[4B4]	LTE B48	5	56232	3649.2	16QAM	1	0	56232	3649.2	4x4	LTE B48	20	55340	3560	4x4	LTE B48	20	55340	3560	2x2	LTE B48	20	55340	3560	4x4	-	-	14.40	14.37
CA_4B4-[4B4]	LTE B48	5	56232	3649.2	16QAM	1	0	56232	3649.2	4x4	LTE B48	20	55340	3560	4x4	LTE B48	20	55340	3560	2x2	LTE B48	20	55340	3560	4x4	-	-	14.40	14.37
CA_4B4-[4B4]	LTE B48	5	56232	3649.2	16QAM	1	0	56232	3649.2	4x4	LTE B48	20	55340	3560	4x4	LTE B48	20	55340	3560	2x2	LTE B48	20	55340	3560	4x4	-	-	14.40	14.37
CA_4B4-[4B4]	LTE B48	5	56232	3649.2	16QAM	1	0	56232	3649.2	4x4	LTE B48	20	55340	3560	4x4	LTE B48	20	55340	3560	2x2	LTE B48	20	55340	3560	4x4	-	-	14.40	14.37
CA_4B4-[4B4]	LTE B48	5	56232	3649.2	16QAM	1	0	56232	3649.2	4x4	LTE B48	20	55340	3560	4x4	LTE B48	20	55340	3560	2x2	LTE B48	20	55340	3560	4x4	-	-	14.40	14.37
CA_4B4-[4B4]	LTE B48	5	56232	3649.2	16QAM	1	0	56232	3649.2	4x4	LTE B48	20	55340	3560	4x4	LTE B48	20	55340	3560	2x2	LTE B48	20	55340	3560	4x4	-	-	14.40	14.37
CA_4B4-[4B4]	LTE B48	5	56232	3649.2	16QAM	1	0	56232	3649.2	4x4	LTE B48	20	55340	3560	4x4	LTE B48	20	55340	3560	2x2	LTE B48	20	55340	3560	4x4	-	-	14.40	14.37
CA_4B4-[4B4]	LTE B48	5	56232	3649.2	16QAM	1	0	56232	3649.2	4x4	LTE B48	20	55340	3560	4x4	LTE B48	20	55340	3560	2x2	LTE B48	20	55340	3560	4x4	-	-	14.40	14.37
CA_4B4-[4B4]	LTE B48	5	56232	3649.2	16QAM	1	0	56232	3649.2	4x4	LTE B48	20	55340	3560	4x4	LTE B48	20	55340	3560	2x2	LTE B48	20	55340	3560	4x4	-	-	14.40	14.37
CA_4B4-[4B4]	LTE B48	5	56232	3649.2	16QAM	1	0	56232	3649.2	4x4	LTE B48	20	55340	3560	4x4	LTE B48	20	55340	3560	2x2	LTE B48	20	55340	3560	4x4	-	-	14.40	14.37
CA_4B4-[4B4]	LTE B48	5	56232	3649.2	16QAM	1	0	56232	3649.2	4x4	LTE B48	20	55340	3560	4x4	LTE B48	20	55340	3560	2x2	LTE B48	20	55340	3560	4x4	-	-	14.40	14.37
CA_4B4-[4B4]	LTE B48	5	56232	3649.2	16QAM	1	0	56232	3649.2	4x4	LTE B48	20	55340	3560	4x4	LTE B48	20	55340	3560	2x2	LTE B48	20	55340	3560	4x4	-	-	14.40	14.37
CA_4B4-[4B4]	LTE B48	5	56232	3649.2	16QAM	1	0	56232	3649.2	4x4	LTE B48	20	55340	3560	4x4	LTE B48	20	55340	3560	2x2	LTE B48	20	55340	3560	4x4	-	-	14.40	14.37
CA_4B4-[4B4]	LTE B48	5	56232	3649.2	16QAM	1	0	56232	3649.2	4x4	LTE B48	20	55340	3560	4x4	LTE B48	20	55340	3560	2x2	LTE B48	20	55340	3560	4x4	-	-	14.40	14.37
CA_4B4-[4B4]	LTE B48	5	56232	3649.2	16QAM	1	0	56232	3649.2	4x4	LTE B48	20	55340	3560	4x4	LTE B48	20	55340	3560	2x2	LTE B48	20	55340	3560	4x4	-			