

# 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 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 1 – Example of Exclusion Table for SISO Configurations

| Index    | CCC          | Supported Channel Bandwidth (MHz) | Restriction | Completely Covered by Measurement Superset |
|----------|--------------|-----------------------------------|-------------|--------------------------------------------|
| CCC #1   | CA [2A]      | 5, 10, 15, 20                     | B20-B4      | No                                         |
| CCC #2   | CA [2A]-[2A] | 5, 10, 15, 20                     | B20-B4      | No                                         |
| CCC #3   | CA [2A]-[2A] | 5, 10, 15, 20                     | B20-B4      | No                                         |
| CCC #4   | CA [2A]-[2A] | 5, 10, 15, 20                     | B20-B4      | No                                         |
| CCC #5   | CA [2A]-[2A] | 5, 10, 15, 20                     | B20-B4      | No                                         |
| CCC #6   | CA [2A]-[2A] | 5, 10, 15, 20                     | B20-B4      | No                                         |
| CCC #7   | CA [2A]-[2A] | 5, 10, 15, 20                     | B20-B4      | No                                         |
| CCC #8   | CA [2A]-[2A] | 5, 10, 15, 20                     | B20-B4      | No                                         |
| CCC #9   | CA [2A]-[2A] | 5, 10, 15, 20                     | B20-B4      | No                                         |
| CCC #10  | CA [2A]-[2A] | 5, 10, 15, 20                     | B20-B4      | No                                         |
| CCC #11  | CA [2A]-[2A] | 5, 10, 15, 20                     | B20-B4      | No                                         |
| CCC #12  | CA [2A]-[2A] | 5, 10, 15, 20                     | B20-B4      | No                                         |
| CCC #13  | CA [2A]-[2A] | 5, 10, 15, 20                     | B20-B4      | No                                         |
| CCC #14  | CA [2A]-[2A] | 5, 10, 15, 20                     | B20-B4      | No                                         |
| CCC #15  | CA [2A]-[2A] | 5, 10, 15, 20                     | B20-B4      | No                                         |
| CCC #16  | CA [2A]-[2A] | 5, 10, 15, 20                     | B20-B4      | No                                         |
| CCC #17  | CA [2A]-[2A] | 5, 10, 15, 20                     | B20-B4      | No                                         |
| CCC #18  | CA [2A]-[2A] | 5, 10, 15, 20                     | B20-B4      | No                                         |
| CCC #19  | CA [2A]-[2A] | 5, 10, 15, 20                     | B20-B4      | No                                         |
| CCC #20  | CA [2A]-[2A] | 5, 10, 15, 20                     | B20-B4      | No                                         |
| CCC #21  | CA [2A]-[2A] | 5, 10, 15, 20                     | B20-B4      | No                                         |
| CCC #22  | CA [2A]-[2A] | 5, 10, 15, 20                     | B20-B4      | No                                         |
| CCC #23  | CA [2A]-[2A] | 5, 10, 15, 20                     | B20-B4      | No                                         |
| CCC #24  | CA [2A]-[2A] | 5, 10, 15, 20                     | B20-B4      | No                                         |
| CCC #25  | CA [2A]-[2A] | 5, 10, 15, 20                     | B20-B4      | No                                         |
| CCC #26  | CA [2A]-[2A] | 5, 10, 15, 20                     | B20-B4      | No                                         |
| CCC #27  | CA [2A]-[2A] | 5, 10, 15, 20                     | B20-B4      | No                                         |
| CCC #28  | CA [2A]-[2A] | 5, 10, 15, 20                     | B20-B4      | No                                         |
| CCC #29  | CA [2A]-[2A] | 5, 10, 15, 20                     | B20-B4      | No                                         |
| CCC #30  | CA [2A]-[2A] | 5, 10, 15, 20                     | B20-B4      | No                                         |
| CCC #31  | CA [2A]-[2A] | 5, 10, 15, 20                     | B20-B4      | No                                         |
| CCC #32  | CA [2A]-[2A] | 5, 10, 15, 20                     | B20-B4      | No                                         |
| CCC #33  | CA [2A]-[2A] | 5, 10, 15, 20                     | B20-B4      | No                                         |
| CCC #34  | CA [2A]-[2A] | 5, 10, 15, 20                     | B20-B4      | No                                         |
| CCC #35  | CA [2A]-[2A] | 5, 10, 15, 20                     | B20-B4      | No                                         |
| CCC #36  | CA [2A]-[2A] | 5, 10, 15, 20                     | B20-B4      | No                                         |
| CCC #37  | CA [2A]-[2A] | 5, 10, 15, 20                     | B20-B4      | No                                         |
| CCC #38  | CA [2A]-[2A] | 5, 10, 15, 20                     | B20-B4      | No                                         |
| CCC #39  | CA [2A]-[2A] | 5, 10, 15, 20                     | B20-B4      | No                                         |
| CCC #40  | CA [2A]-[2A] | 5, 10, 15, 20                     | B20-B4      | No                                         |
| CCC #41  | CA [2A]-[2A] | 5, 10, 15, 20                     | B20-B4      | No                                         |
| CCC #42  | CA [2A]-[2A] | 5, 10, 15, 20                     | B20-B4      | No                                         |
| CCC #43  | CA [2A]-[2A] | 5, 10, 15, 20                     | B20-B4      | No                                         |
| CCC #44  | CA [2A]-[2A] | 5, 10, 15, 20                     | B20-B4      | No                                         |
| CCC #45  | CA [2A]-[2A] | 5, 10, 15, 20                     | B20-B4      | No                                         |
| CCC #46  | CA [2A]-[2A] | 5, 10, 15, 20                     | B20-B4      | No                                         |
| CCC #47  | CA [2A]-[2A] | 5, 10, 15, 20                     | B20-B4      | No                                         |
| CCC #48  | CA [2A]-[2A] | 5, 10, 15, 20                     | B20-B4      | No                                         |
| CCC #49  | CA [2A]-[2A] | 5, 10, 15, 20                     | B20-B4      | No                                         |
| CCC #50  | CA [2A]-[2A] | 5, 10, 15, 20                     | B20-B4      | No                                         |
| CCC #51  | CA [2A]-[2A] | 5, 10, 15, 20                     | B20-B4      | No                                         |
| CCC #52  | CA [2A]-[2A] | 5, 10, 15, 20                     | B20-B4      | No                                         |
| CCC #53  | CA [2A]-[2A] | 5, 10, 15, 20                     | B20-B4      | No                                         |
| CCC #54  | CA [2A]-[2A] | 5, 10, 15, 20                     | B20-B4      | No                                         |
| CCC #55  | CA [2A]-[2A] | 5, 10, 15, 20                     | B20-B4      | No                                         |
| CCC #56  | CA [2A]-[2A] | 5, 10, 15, 20                     | B20-B4      | No                                         |
| CCC #57  | CA [2A]-[2A] | 5, 10, 15, 20                     | B20-B4      | No                                         |
| CCC #58  | CA [2A]-[2A] | 5, 10, 15, 20                     | B20-B4      | No                                         |
| CCC #59  | CA [2A]-[2A] | 5, 10, 15, 20                     | B20-B4      | No                                         |
| CCC #60  | CA [2A]-[2A] | 5, 10, 15, 20                     | B20-B4      | No                                         |
| CCC #61  | CA [2A]-[2A] | 5, 10, 15, 20                     | B20-B4      | No                                         |
| CCC #62  | CA [2A]-[2A] | 5, 10, 15, 20                     | B20-B4      | No                                         |
| CCC #63  | CA [2A]-[2A] | 5, 10, 15, 20                     | B20-B4      | No                                         |
| CCC #64  | CA [2A]-[2A] | 5, 10, 15, 20                     | B20-B4      | No                                         |
| CCC #65  | CA [2A]-[2A] | 5, 10, 15, 20                     | B20-B4      | No                                         |
| CCC #66  | CA [2A]-[2A] | 5, 10, 15, 20                     | B20-B4      | No                                         |
| CCC #67  | CA [2A]-[2A] | 5, 10, 15, 20                     | B20-B4      | No                                         |
| CCC #68  | CA [2A]-[2A] | 5, 10, 15, 20                     | B20-B4      | No                                         |
| CCC #69  | CA [2A]-[2A] | 5, 10, 15, 20                     | B20-B4      | No                                         |
| CCC #70  | CA [2A]-[2A] | 5, 10, 15, 20                     | B20-B4      | No                                         |
| CCC #71  | CA [2A]-[2A] | 5, 10, 15, 20                     | B20-B4      | No                                         |
| CCC #72  | CA [2A]-[2A] | 5, 10, 15, 20                     | B20-B4      | No                                         |
| CCC #73  | CA [2A]-[2A] | 5, 10, 15, 20                     | B20-B4      | No                                         |
| CCC #74  | CA [2A]-[2A] | 5, 10, 15, 20                     | B20-B4      | No                                         |
| CCC #75  | CA [2A]-[2A] | 5, 10, 15, 20                     | B20-B4      | No                                         |
| CCC #76  | CA [2A]-[2A] | 5, 10, 15, 20                     | B20-B4      | No                                         |
| CCC #77  | CA [2A]-[2A] | 5, 10, 15, 20                     | B20-B4      | No                                         |
| CCC #78  | CA [2A]-[2A] | 5, 10, 15, 20                     | B20-B4      | No                                         |
| CCC #79  | CA [2A]-[2A] | 5, 10, 15, 20                     | B20-B4      | No                                         |
| CCC #80  | CA [2A]-[2A] | 5, 10, 15, 20                     | B20-B4      | No                                         |
| CCC #81  | CA [2A]-[2A] | 5, 10, 15, 20                     | B20-B4      | No                                         |
| CCC #82  | CA [2A]-[2A] | 5, 10, 15, 20                     | B20-B4      | No                                         |
| CCC #83  | CA [2A]-[2A] | 5, 10, 15, 20                     | B20-B4      | No                                         |
| CCC #84  | CA [2A]-[2A] | 5, 10, 15, 20                     | B20-B4      | No                                         |
| CCC #85  | CA [2A]-[2A] | 5, 10, 15, 20                     | B20-B4      | No                                         |
| CCC #86  | CA [2A]-[2A] | 5, 10, 15, 20                     | B20-B4      | No                                         |
| CCC #87  | CA [2A]-[2A] | 5, 10, 15, 20                     | B20-B4      | No                                         |
| CCC #88  | CA [2A]-[2A] | 5, 10, 15, 20                     | B20-B4      | No                                         |
| CCC #89  | CA [2A]-[2A] | 5, 10, 15, 20                     | B20-B4      | No                                         |
| CCC #90  | CA [2A]-[2A] | 5, 10, 15, 20                     | B20-B4      | No                                         |
| CCC #91  | CA [2A]-[2A] | 5, 10, 15, 20                     | B20-B4      | No                                         |
| CCC #92  | CA [2A]-[2A] | 5, 10, 15, 20                     | B20-B4      | No                                         |
| CCC #93  | CA [2A]-[2A] | 5, 10, 15, 20                     | B20-B4      | No                                         |
| CCC #94  | CA [2A]-[2A] | 5, 10, 15, 20                     | B20-B4      | No                                         |
| CCC #95  | CA [2A]-[2A] | 5, 10, 15, 20                     | B20-B4      | No                                         |
| CCC #96  | CA [2A]-[2A] | 5, 10, 15, 20                     | B20-B4      | No                                         |
| CCC #97  | CA [2A]-[2A] | 5, 10, 15, 20                     | B20-B4      | No                                         |
| CCC #98  | CA [2A]-[2A] | 5, 10, 15, 20                     | B20-B4      | No                                         |
| CCC #99  | CA [2A]-[2A] | 5, 10, 15, 20                     | B20-B4      | No                                         |
| CCC #100 | CA [2A]-[2A] | 5, 10, 15, 20                     | B20-B4      | No                                         |

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

| Supported Channel Bandwidth (MHz) |              |               |               |          | Restriction  | Completely Covered by Measurement Superset |
|-----------------------------------|--------------|---------------|---------------|----------|--------------|--------------------------------------------|
| Index                             | 3CC          | CC1           | CC2           |          |              |                                            |
| CCC #M1                           | CA [2A]      | 5, 10, 15, 20 | 5, 10, 15, 20 | CCC #M6  |              |                                            |
| CCC #M2                           | CA [2A]-[2A] | 5, 10, 15, 20 | 5, 10, 15, 20 | CCC #M7  | CA [2A]-[2A] | 5, 10, 15, 20                              |
| CCC #M3                           | CA [2A]-[2A] | 5, 10, 15, 20 | 5, 10, 15, 20 | No       |              |                                            |
| CCC #M4                           | CA [2A]-[2A] | 5, 10, 15, 20 | 5, 10, 15, 20 | CCC #M5  |              |                                            |
| CCC #M5                           | CA [2A]-[2A] | 5, 10, 15, 20 | 5, 10, 15, 20 | No       |              |                                            |
| CCC #M6                           | CA [2A]-[2A] | 5, 10, 15, 20 | 5, 10         | CCC #M8  | CA [2A]-[2A] | 5, 10, 15, 20                              |
| CCC #M7                           | CA [2A]-[2A] | 5, 10, 15, 20 | 5, 10         | CCC #M9  | CA [2A]-[2A] | 5, 10, 15, 20                              |
| CCC #M8                           | CA [2A]-[2A] | 5, 10, 15, 20 | 5, 10         | CCC #M10 | CA [2A]-[2A] | 5, 10, 15, 20                              |
| CCC #M9                           | CA [2A]-[2A] | 5, 10         | 5, 10         | No       |              |                                            |
| CCC #M10                          | CA [2A]-[2A] | 5, 10         | 5, 10         | CCC #M12 |              |                                            |
| CCC #M11                          | CA [2A]-[2A] | 5, 10         | 5, 10         | CCC #M13 | CA [2A]-[2A] | 5, 10, 15, 20                              |
| CCC #M12                          | CA [2A]-[2A] | 5, 10, 15, 20 | 5, 10, 15, 20 | CCC #M14 | CA [2A]-[2A] | 5, 10, 15, 20                              |
| CCC #M13                          | CA [2A]-[2A] | 5, 10, 15, 20 | 5, 10, 15, 20 | CCC #M15 | CA [2A]-[2A] | 5, 10, 15, 20                              |
| CCC #M14                          | CA [2A]-[2A] | 5, 10, 15, 20 | 5, 10, 15, 20 | CCC #M16 | CA [2A]-[2A] | 5, 10, 15, 20                              |
| CCC #M15                          | CA [2A]-[2A] | 5, 10, 15, 20 | 5, 10, 15, 20 | CCC #M17 | CA [2A]-[2A] | 5, 10, 15, 20                              |
| CCC #M16                          | CA [2A]-[2A] | 5, 10, 15, 20 | 5, 10, 15, 20 | CCC #M18 | CA [2A]-[2A] | 5, 10, 15, 20                              |
| CCC #M17                          | CA [2A]-[2A] | 5, 10, 15, 20 | 5, 10, 15, 20 | CCC #M19 | CA [2A]-[2A] | 5, 10, 15, 20                              |
| CCC #M18                          | CA [2A]-[2A] | 5, 10, 15, 20 | 5, 10, 15, 20 | CCC #M20 | CA [2A]-[2A] | 5, 10, 15, 20                              |
| CCC #M19                          | CA [2A]-[2A] | 5, 10, 15, 20 | 5, 10, 15, 20 | CCC #M21 | CA [2A]-[2A] | 5, 10, 15, 20                              |
| CCC #M20                          | CA [2A]-[2A] | 5, 10, 15, 20 | 5, 10, 15, 20 | CCC #M22 | CA [2A]-[2A] | 5, 10, 15, 20                              |
| CCC #M21                          | CA [2A]-[2A] | 5, 10, 15, 20 | 5, 10, 15, 20 | CCC #M23 | CA [2A]-[2A] | 5, 10, 15, 20                              |
| CCC #M22                          | CA [2A]-[2A] | 5, 10, 15, 20 | 5, 10, 15, 20 | CCC #M24 | CA [2A]-[2A] | 5, 10, 15, 20                              |
| CCC #M23                          | CA [2A]-[2A] | 5, 10, 15, 20 | 5, 10, 15, 20 | No       |              |                                            |

| Supported Channel Bandwidth (MHz) |              |               |               |               | Restriction   | Completely Covered by Measurement Superset |
|-----------------------------------|--------------|---------------|---------------|---------------|---------------|--------------------------------------------|
| Index                             | 3CC          | CC1           | CC2           | CC3           |               |                                            |
| CCC #M1                           | CA [2A]-[2A] | 5, 10, 15, 20 | 5, 10         | 5, 10         | 5, 10, 15, 20 | No                                         |
| CCC #M2                           | CA [2A]-[2A] | 5, 10, 15, 20 | 5, 10         | 5, 10         | 5, 10, 15, 20 | No                                         |
| CCC #M3                           | CA [2A]-[2A] | 5, 10, 15, 20 | 5, 10         | 5, 10, 15     | 5, 10, 15     | No                                         |
| CCC #M4                           | CA [2A]-[2A] | 5, 10, 15, 20 | 5, 10         | 5, 10, 15     | 5, 10, 15     | No                                         |
| CCC #M5                           | CA [2A]-[2A] | 5, 10, 15, 20 | 5, 10         | 5, 10, 15     | 5, 10, 15     | No                                         |
| CCC #M6                           | CA [2A]-[2A] | 5, 10, 15, 20 | 5, 10         | 5, 10, 15     | 5, 10, 15, 20 | No                                         |
| CCC #M7                           | CA [2A]-[2A] | 5, 10, 15, 20 | 5, 10         | 5, 10, 15, 20 | 5, 10, 15, 20 | No                                         |
| CCC #M8                           | CA [2A]-[2A] | 5, 10, 15, 20 | 5, 10         | 5, 10, 15, 20 | 5, 10, 15, 20 | No                                         |
| CCC #M9                           | CA [2A]-[2A] | 5, 10, 15, 20 | 5, 10, 15, 20 | 5, 10, 15, 20 | 5, 10, 15, 20 | No                                         |
| CCC #M10                          | CA [2A]-[2A] | 5, 10, 15, 20 | 5, 10, 15, 20 | 5, 10, 15, 20 | 5, 10, 15, 20 | No                                         |
| CCC #M11                          | CA [2A]-[2A] | 5, 10, 15, 20 | 5, 10, 15, 20 | 5, 10, 15, 20 | 5, 10, 15, 20 | No                                         |
| CCC #M12                          | CA [2A]-[2A] | 5, 10, 15, 20 | 5, 10, 15, 20 | 5, 10, 15, 20 | 5, 10, 15, 20 | No                                         |
| CCC #M13                          | CA [2A]-[2A] | 5, 10, 15, 20 | 5, 10, 15, 20 | 5, 10, 15, 20 | 5, 10, 15, 20 | No                                         |
| CCC #M14                          | CA [2A]-[2A] | 5, 10, 15, 20 | 5, 10, 15, 20 | 5, 10, 15, 20 | 5, 10, 15, 20 | No                                         |
| CCC #M15                          | CA [2A]-[2A] | 5, 10, 15, 20 | 5, 10         | 5, 10, 15, 20 | 5, 10, 15, 20 | No                                         |
| CCC #M16                          | CA [2A]-[2A] | 5, 10, 15, 20 | 5, 10         | 5, 10, 15, 20 | 5, 10, 15, 20 | No                                         |
| CCC #M17                          | CA [2A]-[2A] | 5, 10, 15, 20 | 5, 10         | 5, 10, 15, 20 | 5, 10, 15, 20 | No                                         |
| CCC #M18                          | CA [2A]-[2A] | 5, 10, 15, 20 | 5, 10         | 5, 10, 15, 20 | 5, 10, 15, 20 | No                                         |
| CCC #M19                          | CA [2A]-[2A] | 5, 10, 15, 20 | 5, 10         | 5, 10, 15, 20 | 5, 10, 15, 20 | No                                         |
| CCC #M20                          | CA [2A]-[2A] | 5, 10, 15, 20 | 5, 10         | 5, 10, 15, 20 | 5, 10, 15, 20 | No                                         |
| CCC #M21                          | CA [2A]-[2A] | 5, 10, 15, 20 | 5, 10, 15     | 5, 10, 15     | 5, 10, 15     | CCC #M1                                    |
| CCC #M22                          | CA [2A]-[2A] | 5, 10, 15, 20 | 5, 10, 15     | 5, 10, 15     | 5, 10, 15     | CCC #M1                                    |
| CCC #M23                          | CA [2A]-[2A] | 5, 10, 15, 20 | 5, 10, 15     | 5, 10, 15     | 5, 10, 15     | CCC #M1                                    |
| CCC #M24                          | CA [2A]-[2A] | 5, 10, 15, 20 | 5, 10, 15, 20 | 5, 10, 15, 20 | 5, 10, 15, 20 | CCC #M1                                    |
| CCC #M25                          | CA [2A]-[2A] | 5, 10, 15, 20 | 5, 10, 15, 20 | 5, 10, 15, 20 | 5, 10, 15, 20 | CCC #M1                                    |
| CCC #M26                          | CA [2A]-[2A] | 5, 10, 15, 20 | 5, 10, 15, 20 | 5, 10, 15, 20 | 5, 10, 15, 20 | CCC #M1                                    |
| CCC #M27                          | CA [2A]-[2A] | 5, 10, 15, 20 | 5, 10, 15, 20 | 5, 10, 15, 20 | 5, 10, 15, 20 | No                                         |
| CCC #M28                          | CA [2A]-[2A] | 5, 10, 15, 20 | 5, 10, 15, 20 | 5, 10, 15, 20 | 5, 10, 15, 20 | No                                         |
| CCC #M29                          | CA [2A]-[2A] | 5, 10, 15, 20 | 5, 10, 15, 20 | 5, 10, 15, 20 | 5, 10, 15, 20 | No                                         |

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

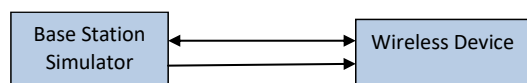
SAR test exclusion for LTE downlink Carrier Aggregation is determined by power measurements according to the number component carriers (CCs) supported by the product implementation. For those configurations required by April 2018 TCBC Workshop Notes, conducted power measurements with LTE Carrier Aggregation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

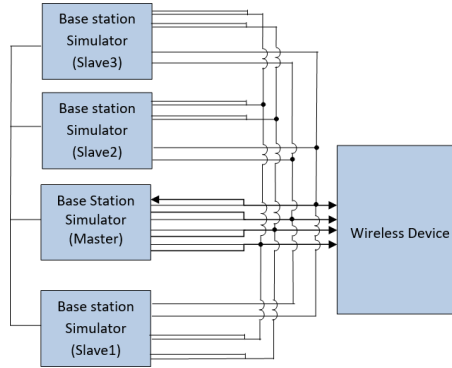
General PCC and SCC configuration selection procedure

- 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: A3LSMG998U                 |  <b>PCTEST</b><br>Proud to be part of  | SAR EVALUATION REPORT |  | Reviewed by:<br>Quality Manager |
| Test Dates:<br>09/29/20 - 12/14/20 | DUT Type:<br>Portable Handset                                                                                                                                                                                |                       |                                                                                       | APPENDIX F:<br>Page 2 of 16     |



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

## 1.3 Downlink Carrier Aggregation RF Conducted Powers

### 1.3.1 LTE Band 71 as PCC

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

| Combination     | PCC Band | PCC BW [MHz] | PCC (UL) Ch. | PCC                  |      |   |    | Mod.  | PCC UL RB | PCC UL RB Offset | PCC (DL) Channel | PCC (DL) Freq. [MHz] | SCC 1    |              |                  |                      | SCC 2    |              |                  |                      | SCC 3    |              |                  |                      | Power                                 |                                   |
|-----------------|----------|--------------|--------------|----------------------|------|---|----|-------|-----------|------------------|------------------|----------------------|----------|--------------|------------------|----------------------|----------|--------------|------------------|----------------------|----------|--------------|------------------|----------------------|---------------------------------------|-----------------------------------|
|                 |          |              |              | PCC (UL) Freq. [MHz] | QPSK | 1 | 50 |       |           |                  |                  |                      | 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  | 20           | 133297       | 680.5                | QPSK | 1 | 50 | 68761 | 634.5     | LTE B48          | 20               | 2175                 | 2125     | LTE B48      | 10               | 2350                 | 2150     | -            | -                | -                    | -        | -            | -                | 25.18                | 25.29                                 |                                   |
| CA 4B-4B-71A    | LTE B71  | 20           | 133297       | 680.5                | QPSK | 1 | 50 | 68761 | 634.5     | LTE B48          | 20               | 55990                | 3625     | LTE B48      | 20               | 56640                | 3690     | -            | -                | -                    | -        | -            | -                | 25.21                | 25.29                                 |                                   |
| CA 4C-71A       | LTE B71  | 20           | 133297       | 680.5                | QPSK | 1 | 50 | 68761 | 634.5     | LTE B48          | 20               | 55990                | 3625     | LTE B48      | 20               | 56180                | 3648.8   | -            | -                | -                    | -        | -            | -                | 25.16                | 25.29                                 |                                   |
| CA 2A-2A-4A-71A | LTE B71  | 20           | 133297       | 680.5                | QPSK | 1 | 50 | 68761 | 634.5     | LTE B2           | 20               | 900                  | 1960     | LTE B2       | 20               | 700                  | 1940     | LTE B4       | 20               | 2375                 | 2152.5   | -            | -                | 25.34                | 25.29                                 |                                   |
| CA 2A-2A-6A-71A | LTE B71  | 20           | 133297       | 680.5                | QPSK | 1 | 50 | 68761 | 634.5     | LTE B2           | 20               | 900                  | 1960     | LTE B2       | 20               | 700                  | 1940     | LTE B6B      | 20               | 6725                 | 2145     | -            | -                | 25.32                | 25.29                                 |                                   |
| CA 2A-6A-6A-71A | LTE B71  | 20           | 133297       | 680.5                | QPSK | 1 | 50 | 68761 | 634.5     | LTE B2           | 20               | 900                  | 1960     | LTE B6B      | 20               | 66786                | 2145     | LTE B6B      | 20               | 67230                | 2190     | -            | -                | 25.36                | 25.29                                 |                                   |
| CA 2A-6A-71A    | LTE B71  | 20           | 133297       | 680.5                | QPSK | 1 | 50 | 68761 | 634.5     | LTE B2           | 20               | 900                  | 1960     | LTE B6B      | 20               | 66786                | 2145     | LTE B6B      | 20               | 66984                | 2164.8   | -            | -                | 25.42                | 25.29                                 |                                   |

### 1.3.2 LTE Band 12 as PCC

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

|                     |          | PCC          |              |                      |      |            |                   |                  |                      |          |              | SCC 1            |                      |          |              | SCC 2            |                      |          |              | SCC 3            |                      |          |              | SCC 4            |                      |                                       |                                   | Power |        |       |       |
|---------------------|----------|--------------|--------------|----------------------|------|------------|-------------------|------------------|----------------------|----------|--------------|------------------|----------------------|----------|--------------|------------------|----------------------|----------|--------------|------------------|----------------------|----------|--------------|------------------|----------------------|---------------------------------------|-----------------------------------|-------|--------|-------|-------|
| Combination         | PCC Band | PCC BW [MHz] | PCC (UL) Ch. | PCC (UL) Freq. [MHz] | Mod. | PCC UL# RB | PCC UL# RB Offset | PCC (DL) Channel | PCC (DL) Freq. [MHz] | PCC 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 2A-12A (1)       | LTE B12  | 10           | 23095        | 707.5                | QPSK | 1          | 0                 | 5095             | 737.5                | LTE B2   | 20           | 900              | 1960                 | -        | -            | -                | -                    | -        | -            | -                | -                    | -        | -            | -                | -                    | -                                     | 25.49                             | 25.30 |        |       |       |
| CA 4A-12A (1)       | LTE B12  | 10           | 23095        | 707.5                | QPSK | 1          | 0                 | 5095             | 737.5                | LTE B4   | 20           | 2175             | 2132.5               | -        | -            | -                | -                    | -        | -            | -                | -                    | -        | -            | -                | -                    | -                                     | 25.43                             | 25.30 |        |       |       |
| CA 4A-12A (2)       | LTE B12  | 10           | 23095        | 707.5                | QPSK | 1          | 0                 | 5095             | 737.5                | LTE B4   | 20           | 2175             | 2132.5               | -        | -            | -                | -                    | -        | -            | -                | -                    | -        | -            | -                | -                    | -                                     | 25.43                             | 25.30 |        |       |       |
| CA 12A-25A          | LTE B12  | 10           | 23095        | 707.5                | QPSK | 1          | 0                 | 5095             | 737.5                | LTE B25  | 20           | 8365             | 1962.5               | -        | -            | -                | -                    | -        | -            | -                | -                    | -        | -            | -                | -                    | -                                     | 25.52                             | 25.30 |        |       |       |
| CA 12A-6A           | LTE B12  | 10           | 23095        | 707.5                | QPSK | 1          | 0                 | 5095             | 737.5                | LTE B6   | 20           | 5045             | 5537.5               | -        | -            | -                | -                    | -        | -            | -                | -                    | -        | -            | -                | -                    | -                                     | 25.24                             | 25.30 |        |       |       |
| CA 12A-6A (1)       | LTE B12  | 10           | 23095        | 707.5                | QPSK | 1          | 0                 | 5095             | 737.5                | LTE B6   | 20           | 66786            | 2145                 | -        | -            | -                | -                    | -        | -            | -                | -                    | -        | -            | -                | -                    | -                                     | 25.45                             | 25.30 |        |       |       |
| CA 12A-6A (2)       | LTE B12  | 10           | 23095        | 707.5                | QPSK | 1          | 0                 | 5095             | 737.5                | LTE B6   | 20           | 66786            | 2145                 | -        | -            | -                | -                    | -        | -            | -                | -                    | -        | -            | -                | -                    | -                                     | 25.45                             | 25.30 |        |       |       |
| CA 12A-6A           | LTE B12  | 10           | 23095        | 707.5                | QPSK | 1          | 0                 | 5095             | 737.5                | LTE B6   | 20           | 5045             | 5537.5               | -        | -            | -                | -                    | -        | -            | -                | -                    | -        | -            | -                | -                    | -                                     | 25.43                             | 25.30 |        |       |       |
| CA 2A-2A-4A-12A     | LTE B12  | 10           | 23095        | 707.5                | QPSK | 1          | 0                 | 5095             | 737.5                | LTE B2   | 20           | 900              | 1960                 | LTE B2   | 20           | 900              | 1960                 | LTE B4   | 20           | 2175             | 2132.5               | LTE B4   | 20           | 2175             | 2132.5               | LTE B4                                | 20                                | 2175  | 2132.5 | 25.19 | 25.30 |
| CA 2A-4A-12A        | LTE B12  | 10           | 23095        | 707.5                | QPSK | 1          | 0                 | 5095             | 737.5                | LTE B2   | 20           | 900              | 1960                 | LTE B4   | 20           | 2175             | 2132.5               | LTE B4   | 20           | 2175             | 2132.5               | LTE B4   | 20           | 2175             | 2132.5               | LTE B4                                | 20                                | 2175  | 2132.5 | 25.22 | 25.30 |
| CA 2A-12A-12B       | LTE B12  | 5            | 23095        | 707.5                | QPSK | 1          | 12                | 5095             | 737.5                | LTE B12  | 5            | 5047             | 732.7                | LTE B2   | 20           | 900              | 1960                 | LTE B4   | 20           | 2175             | 2132.5               | LTE B12  | 5            | 5047             | 732.7                | LTE B12                               | 5                                 | 5047  | 732.7  | 25.17 | 25.30 |
| CA 4A-4A-12B        | LTE B12  | 5            | 23095        | 707.5                | QPSK | 1          | 12                | 5095             | 737.5                | LTE B12  | 5            | 5047             | 732.7                | LTE B6   | 20           | 66786            | 2145                 | LTE B6   | 20           | 66786            | 2145                 | LTE B6   | 20           | 66786            | 2145                 | LTE B6                                | 20                                | 66786 | 2145   | 25.23 | 25.31 |
| CA 12A-6A           | LTE B12  | 10           | 23095        | 707.5                | QPSK | 1          | 0                 | 5095             | 737.5                | LTE B6   | 20           | 5045             | 5537.5               | LTE B46  | 20           | 50467            | 5537.7               | LTE B46  | 20           | 50467            | 5537.7               | LTE B46  | 20           | 50467            | 5537.7               | LTE B46                               | 20                                | 50467 | 5537.7 | 25.13 | 25.30 |
| CA 2A-2A-12A-30A-6A | LTE B12  | 10           | 23095        | 707.5                | QPSK | 1          | 0                 | 5095             | 737.5                | LTE B2   | 20           | 900              | 1960                 | LTE B2   | 20           | 900              | 1960                 | LTE B2   | 20           | 900              | 1960                 | LTE B2   | 20           | 900              | 1960                 | LTE B2                                | 20                                | 900   | 1960   | 25.42 | 25.30 |
| CA 2A-2A-12A-6A-6A  | LTE B12  | 10           | 23095        | 707.5                | QPSK | 1          | 0                 | 5095             | 737.5                | LTE B2   | 20           | 900              | 1960                 | LTE B2   | 20           | 900              | 1960                 | LTE B6   | 20           | 66786            | 2145                 | LTE B6   | 20           | 66786            | 2145                 | LTE B6                                | 20                                | 66786 | 2145   | 25.13 | 25.30 |
| CA 2A-2A-12B-6A     | LTE B12  | 5            | 23095        | 707.5                | QPSK | 1          | 12                | 5095             | 737.5                | LTE B12  | 5            | 5047             | 732.7                | LTE B2   | 20           | 900              | 1960                 | LTE B2   | 20           | 900              | 1960                 | LTE B2   | 20           | 900              | 1960                 | LTE B2                                | 20                                | 900   | 1960   | 25.25 | 25.31 |
| CA 2A-12A-30A-6A-6A | LTE B12  | 10           | 23095        | 707.5                | QPSK | 1          | 0                 | 5095             | 737.5                | LTE B2   | 20           | 900              | 1960                 | LTE B2   | 20           | 900              | 1960                 | LTE B2   | 20           | 900              | 1960                 | LTE B2   | 20           | 900              | 1960                 | LTE B2                                | 20                                | 900   | 1960   | 25.37 | 25.30 |
| CA 2A-12B-6A-6A     | LTE B12  | 5            | 23095        | 707.5                | QPSK | 1          | 12                | 5095             | 737.5                | LTE B12  | 5            | 5047             | 732.7                | LTE B2   | 20           | 900              | 1960                 | LTE B6   | 20           | 66786            | 2145                 | LTE B6   | 20           | 66786            | 2145                 | LTE B6                                | 20                                | 66786 | 2145   | 25.30 | 25.31 |

|                                    |                                                                                                                           |                             |                                                                                               |                                 |
|------------------------------------|---------------------------------------------------------------------------------------------------------------------------|-----------------------------|-----------------------------------------------------------------------------------------------|---------------------------------|
| FCC ID: A3LSMG998U                 |  PCTEST<br>Proud to be part of element | SAR EVALUATION REPORT       |  SAMSUNG | Reviewed by:<br>Quality Manager |
| Test Dates:<br>09/29/20 - 12/14/20 | DUT Type:<br>Portable Handset                                                                                             | APPENDIX F:<br>Page 3 of 16 |                                                                                               |                                 |





### 1.3.10 LTE Band 41 as PCC

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

| Combination    | PCC Band | PCC BW [MHz] | PCC          |                      |      |           | SCC 1            |                  |                      |          | SCC 2        |                      |          |              | SCC 3            |                      |          |              | SCC 4            |                      |          |              | Power            |                      |                                       |                                   |       |
|----------------|----------|--------------|--------------|----------------------|------|-----------|------------------|------------------|----------------------|----------|--------------|----------------------|----------|--------------|------------------|----------------------|----------|--------------|------------------|----------------------|----------|--------------|------------------|----------------------|---------------------------------------|-----------------------------------|-------|
|                |          |              | PCC [UL] Ch. | PCC [UL] Freq. [MHz] | Mod. | PCC UL RB | PCC UL RB Offset | PCC [DL] Channel | PCC [DL] Freq. [MHz] | SCC Band | SCC BW [MHz] | SCC [DL] 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 41A-41A (1) | LTE B41  | 20           | 41490        | 2680                 | QPSK | 1         | 50               | 41490            | 2680                 | LTE B41  | 20           | 39750                | 2506     | -            | -                | -                    | -        | -            | -                | -                    | -        | -            | -                | -                    | 23.96                                 | 24.00                             |       |
| CA 41A-41C     | LTE B41  | 20           | 41490        | 2680                 | QPSK | 1         | 50               | 41490            | 2680                 | LTE B41  | 20           | 39948                | 2525.8   | LTE B41      | 20               | 39750                | 2506     | -            | -                | -                    | -        | -            | -                | -                    | 24.08                                 | 24.00                             |       |
| CA 41C-41A     | LTE B41  | 20           | 41490        | 2680                 | QPSK | 1         | 50               | 41490            | 2680                 | LTE B41  | 20           | 41292                | 2660.2   | LTE B41      | 20               | 39750                | 2506     | -            | -                | -                    | -        | -            | -                | -                    | 24.12                                 | 24.00                             |       |
| CA 41A-41D     | LTE B41  | 20           | 41490        | 2680                 | QPSK | 1         | 50               | 41490            | 2680                 | LTE B41  | 20           | 40146                | 2545.8   | LTE B41      | 20               | 39948                | 2525.8   | LTE B41      | 20               | 39750                | 2506     | -            | -                | -                    | -                                     | 23.98                             | 24.00 |
| CA 41D-41A     | LTE B41  | 20           | 41490        | 2680                 | QPSK | 1         | 50               | 41490            | 2680                 | LTE B41  | 20           | 41292                | 2660.2   | LTE B41      | 20               | 39948                | 2525.8   | LTE B41      | 20               | 39750                | 2506     | -            | -                | -                    | -                                     | 24.12                             | 24.00 |
| CA 41C-41C     | LTE B41  | 20           | 41490        | 2680                 | QPSK | 1         | 50               | 41490            | 2680                 | LTE B41  | 20           | 41292                | 2660.2   | LTE B41      | 20               | 39948                | 2525.8   | LTE B41      | 20               | 39750                | 2506     | -            | -                | -                    | -                                     | 24.14                             | 24.00 |
| CA 41E         | LTE B41  | 20           | 41490        | 2680                 | QPSK | 1         | 50               | 41490            | 2680                 | LTE B41  | 20           | 41292                | 2660.2   | LTE B41      | 20               | 41292                | 2660.2   | LTE B41      | 20               | 39948                | 2525.8   | LTE B41      | 20               | 39948                | 2525.8                                | 23.96                             | 24.00 |
| CA 41C-41D     | LTE B41  | 20           | 41490        | 2680                 | QPSK | 1         | 50               | 41490            | 2680                 | LTE B41  | 20           | 41292                | 2660.2   | LTE B41      | 20               | 40146                | 2545.8   | LTE B41      | 20               | 39948                | 2525.8   | LTE B41      | 20               | 39948                | 2525.8                                | 24.01                             | 24.00 |
| CA 41D-41C     | LTE B41  | 20           | 41490        | 2680                 | QPSK | 1         | 50               | 41490            | 2680                 | LTE B41  | 20           | 41292                | 2660.2   | LTE B41      | 20               | 41292                | 2660.2   | LTE B41      | 20               | 39948                | 2525.8   | LTE B41      | 20               | 39948                | 2525.8                                | 24.08                             | 24.00 |

### 1.3.11 LTE Band 48 as PCC

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

| Combination | PCC Band | PCC BW [MHz] | PCC          |                      |       |           |                  | SCC 1            |                      |          |              | SCC 2            |                      |          |              | SCC 3            |                      |          |              | SCC 4            |                      |          |              | Power            |                      |                                       |                                |
|-------------|----------|--------------|--------------|----------------------|-------|-----------|------------------|------------------|----------------------|----------|--------------|------------------|----------------------|----------|--------------|------------------|----------------------|----------|--------------|------------------|----------------------|----------|--------------|------------------|----------------------|---------------------------------------|--------------------------------|
|             |          |              | PCC [UL] Ch. | PCC [UL] Freq. [MHz] | Mod.  | PCC UL RB | PCC UL RB Offset | PCC [DL] Channel | PCC [DL] Freq. [MHz] | SCC Band | SCC BW [MHz] | SCC [DL] Channel | SCC [DL] Freq. [MHz] | SCC Band | SCC BW [MHz] | SCC [DL] Channel | SCC [DL] Freq. [MHz] | SCC Band | SCC BW [MHz] | SCC [DL] Channel | SCC [DL] Freq. [MHz] | SCC Band | SCC BW [MHz] | SCC [DL] Channel | SCC [DL] Freq. [MHz] | LTE Tx Power with DL CA Enabled (dBm) | LTE Single Carrier Power (dBm) |
| CA 48A-48A  | LTE B48  | 20           | 55340        | 3560                 | 16QAM | 1         | 50               | 55340            | 3560                 | LTE B48  | 20           | 55640            | 3600                 | -        | -            | -                | -                    | -        | -            | -                | -                    | -        | -            | -                | -                    | 22.99                                 | 22.99                          |
| CA 48A-48C  | LTE B48  | 20           | 55340        | 3560                 | 16QAM | 1         | 50               | 55340            | 3560                 | LTE B48  | 20           | 55640            | 3600                 | LTE B48  | 20           | 55642            | 3602.2               | -        | -            | -                | -                    | -        | -            | -                | -                    | 22.97                                 | 22.99                          |
| CA 48C-48A  | LTE B48  | 20           | 55340        | 3560                 | 16QAM | 1         | 50               | 55340            | 3560                 | LTE B48  | 20           | 55638            | 3597.8               | LTE B48  | 20           | 55640            | 3600                 | -        | -            | -                | -                    | -        | -            | -                | -                    | 22.97                                 | 22.99                          |
| CA 48A-48D  | LTE B48  | 20           | 55340        | 3560                 | 16QAM | 1         | 50               | 55340            | 3560                 | LTE B48  | 20           | 55640            | 3600                 | LTE B48  | 20           | 55642            | 3602.2               | LTE B48  | 20           | 55244            | 3550.4               | -        | -            | -                | -                    | 22.94                                 | 22.99                          |
| CA 48D-48A  | LTE B48  | 20           | 55340        | 3560                 | 16QAM | 1         | 50               | 55340            | 3560                 | LTE B48  | 20           | 55638            | 3597.8               | LTE B48  | 20           | 55638            | 3599.6               | LTE B48  | 20           | 55640            | 3600                 | -        | -            | -                | -                    | 22.98                                 | 22.99                          |
| CA 48C-48C  | LTE B48  | 20           | 55340        | 3560                 | 16QAM | 1         | 50               | 55340            | 3560                 | LTE B48  | 20           | 55638            | 3597.8               | LTE B48  | 20           | 55640            | 3600                 | LTE B48  | 20           | 55642            | 3602.2               | -        | -            | -                | -                    | 22.97                                 | 22.99                          |
| CA 48A-48E  | LTE B48  | 20           | 55340        | 3560                 | 16QAM | 1         | 50               | 55340            | 3560                 | LTE B48  | 20           | 55640            | 3600                 | LTE B48  | 20           | 55642            | 3602.2               | LTE B48  | 20           | 55244            | 3550.6               | LTE B48  | 20           | 55640            | 3600                 | 22.92                                 | 22.99                          |
| CA 48E-48A  | LTE B48  | 20           | 55340        | 3560                 | 16QAM | 1         | 50               | 55340            | 3560                 | LTE B48  | 20           | 55638            | 3597.8               | LTE B48  | 20           | 55638            | 3599.6               | LTE B48  | 20           | 55640            | 3600                 | -        | -            | -                | -                    | 22.99                                 | 22.99                          |
| CA 48C-48D  | LTE B48  | 20           | 55340        | 3560                 | 16QAM | 1         | 50               | 55340            | 3560                 | LTE B48  | 20           | 55638            | 3597.8               | LTE B48  | 20           | 55638            | 3599.6               | LTE B48  | 20           | 55642            | 3602.2               | LTE B48  | 20           | 55644            | 3604.4               | 22.98                                 | 22.99                          |
| CA 48D-48C  | LTE B48  | 20           | 55340        | 3560                 | 16QAM | 1         | 50               | 55340            | 3560                 | LTE B48  | 20           | 55638            | 3597.8               | LTE B48  | 20           | 55638            | 3599.6               | LTE B48  | 20           | 55640            | 3600                 | -        | -            | -                | -                    | 22.99                                 | 22.99                          |
| CA 48F      | LTE B48  | 20           | 55340        | 3560                 | 16QAM | 1         | 50               | 55340            | 3560                 | LTE B48  | 20           | 55638            | 3597.8               | LTE B48  | 20           | 55640            | 3600                 | LTE B48  | 20           | 55644            | 3602.6               | LTE B48  | 20           | 55244            | 3602.2               | 22.93                                 | 22.99                          |

## 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 12**  
**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       | 1.4             | 132322  | 1745            | QPSK       | 1       | 2         | 23.40                       | 23.42                          |
| 25       | 15              | 26115   | 1857.5          | QPSK       | 1       | 36        | 23.50                       | 23.55                          |
| 30       | 5               | 27710   | 2310            | QPSK       | 1       | 12        | 23.12                       | 23.14                          |
| 41       | 20              | 41490   | 2680            | QPSK       | 1       | 50        | 24.01                       | 24.00                          |
| 48       | 20              | 55340   | 3560            | 16QAM      | 1       | 50        | 23.00                       | 22.99                          |

|                                    |                                                                                                                           |                             |                                                                                               |                                 |
|------------------------------------|---------------------------------------------------------------------------------------------------------------------------|-----------------------------|-----------------------------------------------------------------------------------------------|---------------------------------|
| FCC ID: A3LSMG998U                 |  PCTEST<br>Proud to be part of element | SAR EVALUATION REPORT       |  SAMSUNG | Reviewed by:<br>Quality Manager |
| Test Dates:<br>09/29/20 - 12/14/20 | DUT Type:<br>Portable Handset                                                                                             | APPENDIX F:<br>Page 6 of 16 |                                                                                               |                                 |



### 1.4.2 LTE Band 71 as PCC

**Table 13**  
**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] Ch. | PCC [DL] Freq. [MHz] | DL Ant. Config. | SCC Band | SCC BW [MHz] | SCC 1        |                      | DL Ant. Config. | SCC Band | SCC BW [MHz] | SCC 2        |                      | DL Ant. Config. | SCC Band | SCC BW [MHz] | SCC 3        |                      | DL Ant. Config. | LTE Tx Power [dBm] | LTE Single Carrier Tx Power [dBm] |
|-------------------|----------|--------------|--------------|----------------------|------|-------------|--------------------|--------------|----------------------|-----------------|----------|--------------|--------------|----------------------|-----------------|----------|--------------|--------------|----------------------|-----------------|----------|--------------|--------------|----------------------|-----------------|--------------------|-----------------------------------|
|                   |          |              |              |                      |      |             |                    |              |                      |                 |          |              | SCC [DL] Ch. | SCC [DL] Freq. [MHz] |                 |          |              | SCC [DL] Ch. | SCC [DL] Freq. [MHz] |                 |          |              | SCC [DL] Ch. | SCC [DL] Freq. [MHz] |                 |                    |                                   |
| CA [4A]-4A-71A    | LTE B71  | 20           | 133297       | 680.5                | QPSK | 1           | 50                 | 68761        | 634.5                | 2x2             | LTE B4   | 20           | 2175         | 2132.5               | 4x4             | LTE B4   | 10           | 2350         | 2150                 | 2x2             | -        | -            | -            | -                    | -               | 25.37              | 25.29                             |
| CA [4A]-6A-71A    | LTE B71  | 20           | 133297       | 680.5                | QPSK | 1           | 50                 | 68761        | 634.5                | 2x2             | LTE B4   | 20           | 2175         | 2132.5               | 4x4             | LTE B4   | 10           | 2350         | 2150                 | 4x4             | -        | -            | -            | -                    | -               | 25.32              | 25.29                             |
| CA [4A]-8A-71A    | LTE B71  | 20           | 133297       | 680.5                | QPSK | 1           | 50                 | 68761        | 634.5                | 2x2             | LTE B4B  | 20           | 55990        | 3625                 | 4x4             | LTE B4B  | 20           | 56540        | 3600                 | 2x2             | -        | -            | -            | -                    | -               | 25.33              | 25.29                             |
| CA [4BA]-6A-71A   | LTE B71  | 20           | 133297       | 680.5                | QPSK | 1           | 50                 | 68761        | 634.5                | 2x2             | LTE B4B  | 20           | 55990        | 3625                 | 4x4             | LTE B4B  | 20           | 55990        | 3625                 | 4x4             | -        | -            | -            | -                    | -               | 25.31              | 25.29                             |
| CA [4B]-71A       | LTE B71  | 20           | 133297       | 680.5                | QPSK | 1           | 50                 | 68761        | 634.5                | 2x2             | LTE B4B  | 20           | 55990        | 3625                 | 4x4             | LTE B4B  | 20           | 56188        | 3648.4               | 8x4             | -        | -            | -            | -                    | -               | 25.29              | 25.29                             |
| CA [2A]-2A-4A-71A | LTE B71  | 20           | 133297       | 680.5                | QPSK | 1           | 50                 | 68761        | 634.5                | 2x2             | LTE B2   | 20           | 900          | 1960                 | 4x4             | LTE B2   | 20           | 700          | 1940                 | 2x2             | LTE B4   | 20           | 2175         | 2132.5               | 2x2             | 25.31              | 25.29                             |
| CA [2A]-2A-4A-71A | LTE B71  | 20           | 133297       | 680.5                | QPSK | 1           | 50                 | 68761        | 634.5                | 2x2             | LTE B2   | 20           | 900          | 1960                 | 2x2             | LTE B2   | 20           | 700          | 1940                 | 2x2             | LTE B4   | 20           | 2175         | 2132.5               | 4x4             | 25.28              | 25.29                             |
| CA [2A]-2A-4A-71A | LTE B71  | 20           | 133297       | 680.5                | QPSK | 1           | 50                 | 68761        | 634.5                | 2x2             | LTE B2   | 20           | 900          | 1960                 | 4x4             | LTE B2   | 20           | 700          | 1940                 | 4x4             | LTE B4   | 20           | 2175         | 2132.5               | 2x2             | 25.33              | 25.29                             |
| CA [2A]-2A-6A-71A | LTE B71  | 20           | 133297       | 680.5                | QPSK | 1           | 50                 | 68761        | 634.5                | 2x2             | LTE B2   | 20           | 900          | 1960                 | 4x4             | LTE B2   | 20           | 700          | 1940                 | 2x2             | LTE B4   | 20           | 2175         | 2132.5               | 4x4             | 25.28              | 25.29                             |
| CA [2A]-4A-4A-71A | LTE B71  | 20           | 133297       | 680.5                | QPSK | 1           | 50                 | 68761        | 634.5                | 2x2             | LTE B2   | 20           | 900          | 1960                 | 4x4             | LTE B2   | 20           | 700          | 1940                 | 4x4             | LTE B4   | 20           | 2175         | 2132.5               | 4x4             | 25.25              | 25.29                             |
| CA [2A]-6A-6A-71A | LTE B71  | 20           | 133297       | 680.5                | QPSK | 1           | 50                 | 68761        | 634.5                | 2x2             | LTE B2   | 20           | 900          | 1960                 | 4x4             | LTE B2   | 20           | 700          | 1940                 | 2x2             | LTE B6B  | 20           | 66786        | 2145                 | 2x2             | 25.28              | 25.29                             |
| CA [2A]-6A-6A-71A | LTE B71  | 20           | 133297       | 680.5                | QPSK | 1           | 50                 | 68761        | 634.5                | 2x2             | LTE B2   | 20           | 900          | 1960                 | 2x2             | LTE B2   | 20           | 700          | 1940                 | 2x2             | LTE B6B  | 20           | 66786        | 2145                 | 4x4             | 25.33              | 25.29                             |
| CA [2A]-6A-6A-71A | LTE B71  | 20           | 133297       | 680.5                | QPSK | 1           | 50                 | 68761        | 634.5                | 2x2             | LTE B2   | 20           | 900          | 1960                 | 4x4             | LTE B2   | 20           | 700          | 1940                 | 4x4             | LTE B6B  | 20           | 66786        | 2145                 | 4x4             | 25.28              | 25.29                             |
| CA [2A]-6A-6A-71A | LTE B71  | 20           | 133297       | 680.5                | QPSK | 1           | 50                 | 68761        | 634.5                | 2x2             | LTE B2   | 20           | 900          | 1960                 | 4x4             | LTE B2   | 20           | 700          | 1940                 | 2x2             | LTE B6B  | 20           | 66786        | 2145                 | 4x4             | 25.28              | 25.29                             |
| CA [2A]-6A-6A-71A | LTE B71  | 20           | 133297       | 680.5                | QPSK | 1           | 50                 | 68761        | 634.5                | 2x2             | LTE B2   | 20           | 900          | 1960                 | 4x4             | LTE B6B  | 20           | 66786        | 2145                 | 2x2             | LTE B6B  | 20           | 67236        | 2190                 | 2x2             | 25.13              | 25.29                             |
| CA [2A]-6A-6A-71A | LTE B71  | 20           | 133297       | 680.5                | QPSK | 1           | 50                 | 68761        | 634.5                | 2x2             | LTE B2   | 20           | 900          | 1960                 | 2x2             | LTE B6B  | 20           | 66786        | 2145                 | 4x4             | LTE B6B  | 20           | 67236        | 2190                 | 2x2             | 25.13              | 25.29                             |
| CA [2A]-6A-6A-71A | LTE B71  | 20           | 133297       | 680.5                | QPSK | 1           | 50                 | 68761        | 634.5                | 2x2             | LTE B2   | 20           | 900          | 1960                 | 4x4             | LTE B6B  | 20           | 66786        | 2145                 | 4x4             | LTE B6B  | 20           | 67236        | 2190                 | 4x4             | 25.22              | 25.29                             |
| CA [2A]-6A-6A-71A | LTE B71  | 20           | 133297       | 680.5                | QPSK | 1           | 50                 | 68761        | 634.5                | 2x2             | LTE B2   | 20           | 900          | 1960                 | 2x2             | LTE B6B  | 20           | 66786        | 2145                 | 4x4             | LTE B6B  | 20           | 67236        | 2190                 | 4x4             | 25.17              | 25.29                             |
| CA [2A]-6A-6A-71A | LTE B71  | 20           | 133297       | 680.5                | QPSK | 1           | 50                 | 68761        | 634.5                | 2x2             | LTE B2   | 20           | 900          | 1960                 | 4x4             | LTE B6B  | 20           | 66786        | 2145                 | 4x4             | LTE B6B  | 20           | 67236        | 2190                 | 4x4             | 25.21              | 25.29                             |
| CA [2A]-6A-6A-71A | LTE B71  | 20           | 133297       | 680.5                | QPSK | 1           | 50                 | 68761        | 634.5                | 2x2             | LTE B2   | 20           | 900          | 1960                 | 4x4             | LTE B6B  | 20           | 66786        | 2145                 | 2x2             | LTE B6B  | 20           | 66984        | 2148                 | 2x2             | 25.31              | 25.29                             |
| CA [2A]-6A-6A-71A | LTE B71  | 20           | 133297       | 680.5                | QPSK | 1           | 50                 | 68761        | 634.5                | 2x2             | LTE B2   | 20           | 900          | 1960                 | 2x2             | LTE B6B  | 20           | 66786        | 2145                 | 4x4             | LTE B6B  | 20           | 66984        | 2148                 | 4x4             | 25.31              | 25.29                             |
| CA [2A]-6A-6A-71A | LTE B71  | 20           | 133297       | 680.5                | QPSK | 1           | 50                 | 68761        | 634.5                | 2x2             | LTE B2   | 20           | 900          | 1960                 | 4x4             | LTE B6B  | 20           | 66786        | 2145                 | 4x4             | LTE B6B  | 20           | 66984        | 2148                 | 4x4             | 25.28              | 25.29                             |

### 1.4.3 LTE Band 12 as PCC

**Table 14**  
**Maximum Output Powers**

[illegible]

|                                           |                                                                                                                                                 |                             |                                                                                       |                                        |
|-------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------|---------------------------------------------------------------------------------------|----------------------------------------|
| FCC ID: A3LSMG998U                        |  <b>PCTEST</b><br><small>Proud to be part of element</small> | SAR EVALUATION REPORT       |  | <b>Reviewed by:</b><br>Quality Manager |
| <b>Test Dates:</b><br>09/29/20 - 12/14/20 | <b>DUT Type:</b><br>Portable Handset                                                                                                            | APPENDIX F:<br>Page 7 of 16 |                                                                                       |                                        |





## 1.4.6 LTE Band 5 as PCC

Table 17  
Maximum Output Powers

| Combination | PCC Band | PCC BW [MHz] | PCC [DL] Ch. Freq. [MHz] | PCC [UL] Ch. Freq. [MHz] | Mod. | PCC |  |  |  | SCC 1 |  |  |  | SCC 2 |  |  |  | SCC 3 |  |  |  | SCC 4 |  |  |  | SCC 5 |  |  |  | SCC 6 |  |  |  | SCC 7 |  |  |  | SCC 8 |  |  |  | SCC 9 |  |  |  | SCC 10 |  |  |  | SCC 11 |  |  |  | SCC 12 |  |  |  | SCC 13 |  |  |  | SCC 14 |  |  |  | SCC 15 |  |  |  | SCC 16 |  |  |  | SCC 17 |  |  |  | SCC 18 |  |  |  | SCC 19 |  |  |  | SCC 20 |  |  |  | SCC 21 |  |  |  | SCC 22 |  |  |  | SCC 23 |  |  |  | SCC 24 |  |  |  | SCC 25 |  |  |  | SCC 26 |  |  |  | SCC 27 |  |  |  | SCC 28 |  |  |  | SCC 29 |  |  |  | SCC 30 |  |  |  | SCC 31 |  |  |  | SCC 32 |  |  |  | SCC 33 |  |  |  | SCC 34 |  |  |  | SCC 35 |  |  |  | SCC 36 |  |  |  | SCC 37 |  |  |  | SCC 38 |  |  |  | SCC 39 |  |  |  | SCC 40 |  |  |  | SCC 41 |  |  |  | SCC 42 |  |  |  | SCC 43 |  |  |  | SCC 44 |  |  |  | SCC 45 |  |  |  | SCC 46 |  |  |  | SCC 47 |  |  |  | SCC 48 |  |  |  | SCC 49 |  |  |  | SCC 50 |  |  |  | SCC 51 |  |  |  | SCC 52 |  |  |  | SCC 53 |  |  |  | SCC 54 |  |  |  | SCC 55 |  |  |  | SCC 56 |  |  |  | SCC 57 |  |  |  | SCC 58 |  |  |  | SCC 59 |  |  |  | SCC 60 |  |  |  | SCC 61 |  |  |  | SCC 62 |  |  |  | SCC 63 |  |  |  | SCC 64 |  |  |  | SCC 65 |  |  |  | SCC 66 |  |  |  | SCC 67 |  |  |  | SCC 68 |  |  |  | SCC 69 |  |  |  | SCC 70 |  |  |  | SCC 71 |  |  |  | SCC 72 |  |  |  | SCC 73 |  |  |  | SCC 74 |  |  |  | SCC 75 |  |  |  | SCC 76 |  |  |  | SCC 77 |  |  |  | SCC 78 |  |  |  | SCC 79 |  |  |  | SCC 80 |  |  |  | SCC 81 |  |  |  | SCC 82 |  |  |  | SCC 83 |  |  |  | SCC 84 |  |  |  | SCC 85 |  |  |  | SCC 86 |  |  |  | SCC 87 |  |  |  | SCC 88 |  |  |  | SCC 89 |  |  |  | SCC 90 |  |  |  | SCC 91 |  |  |  | SCC 92 |  |  |  | SCC 93 |  |  |  | SCC 94 |  |  |  | SCC 95 |  |  |  | SCC 96 |  |  |  | SCC 97 |  |  |  | SCC 98 |  |  |  | SCC 99 |  |  |  | SCC 100 |  |  |  | SCC 101 |  |  |  | SCC 102 |  |  |  | SCC 103 |  |  |  | SCC 104 |  |  |  | SCC 105 |  |  |  | SCC 106 |  |  |  | SCC 107 |  |  |  | SCC 108 |  |  |  | SCC 109 |  |  |  | SCC 110 |  |  |  | SCC 111 |  |  |  | SCC 112 |  |  |  | SCC 113 |  |  |  | SCC 114 |  |  |  | SCC 115 |  |  |  | SCC 116 |  |  |  | SCC 117 |  |  |  | SCC 118 |  |  |  | SCC 119 |  |  |  | SCC 120 |  |  |  | SCC 121 |  |  |  | SCC 122 |  |  |  | SCC 123 |  |  |  | SCC 124 |  |  |  | SCC 125 |  |  |  | SCC 126 |  |  |  | SCC 127 |  |  |  | SCC 128 |  |  |  | SCC 129 |  |  |  | SCC 130 |  |  |  | SCC 131 |  |  |  | SCC 132 |  |  |  | SCC 133 |  |  |  | SCC 134 |  |  |  | SCC 135 |  |  |  | SCC 136 |  |  |  | SCC 137 |  |  |  | SCC 138 |  |  |  | SCC 139 |  |  |  | SCC 140 |  |  |  | SCC 141 |  |  |  | SCC 142 |  |  |  | SCC 143 |  |  |  | SCC 144 |  |  |  | SCC 145 |  |  |  | SCC 146 |  |  |  | SCC 147 |  |  |  | SCC 148 |  |  |  | SCC 149 |  |  |  | SCC 150 |  |  |  | SCC 151 |  |  |  | SCC 152 |  |  |  | SCC 153 |  |  |  | SCC 154 |  |  |  | SCC 155 |  |  |  | SCC 156 |  |  |  | SCC 157 |  |  |  | SCC 158 |  |  |  | SCC 159 |  |  |  | SCC 160 |  |  |  | SCC 161 |  |  |  | SCC 162 |  |  |  | SCC 163 |  |  |  | SCC 164 |  |  |  | SCC 165 |  |  |  | SCC 166 |  |  |  | SCC 167 |  |  |  | SCC 168 |  |  |  | SCC 169 |  |  |  | SCC 170 |  |  |  | SCC 171 |  |  |  | SCC 172 |  |  |  | SCC 173 |  |  |  | SCC 174 |  |  |  | SCC 175 |  |  |  | SCC 176 |  |  |  | SCC 177 |  |  |  | SCC 178 |  |  |  | SCC 179 |  |  |  | SCC 180 |  |  |  | SCC 181 |  |  |  | SCC 182 |  |  |  | SCC 183 |  |  |  | SCC 184 |  |  |  | SCC 185 |  |  |  | SCC 186 |  |  |  | SCC 187 |  |  |  | SCC 188 |  |  |  | SCC 189 |  |  |  | SCC 190 |  |  |  | SCC 191 |  |  |  | SCC 192 |  |  |  | SCC 193 |  |  |  | SCC 194 |  |  |  | SCC 195 |  |  |  | SCC 196 |  |  |  | SCC 197 |  |  |  | SCC 198 |  |  |  | SCC 199 |  |  |  | SCC 200 |  |  |  | SCC 201 |  |  |  | SCC 202 |  |  |  | SCC 203 |  |  |  | SCC 204 |  |  |  | SCC 205 |  |  |  | SCC 206 |  |  |  | SCC 207 |  |  |  | SCC 208 |  |  |  | SCC 209 |  |  |  | SCC 210 |  |  |  | SCC 211 |  |  |  | SCC 212 |  |  |  | SCC 213 |  |  |  | SCC 214 |  |  |  | SCC 215 |  |  |  | SCC 216 |  |  |  | SCC 217 |  |  |  | SCC 218 |  |  |  | SCC 219 |  |  |  | SCC 220 |  |  |  | SCC 221 |  |  |  | SCC 222 |  |  |  | SCC 223 |  |  |  | SCC 224 |  |  |  | SCC 225 |  |  |  | SCC 226 |  |  |  | SCC 227 |  |  |  | SCC 228 |  |  |  | SCC 229 |  |  |  | SCC 230 |  |  |  | SCC 231 |  |  |  | SCC 232 |  |  |  | SCC 233 |  |  |  | SCC 234 |  |  |  | SCC 235 |  |  |  | SCC 236 |  |  |  | SCC 237 |  |  |  | SCC 238 |  |  |  | SCC 239 |  |  |  | SCC 240 |  |  |  | SCC 241 |  |  |  | SCC 242 |  |  |  | SCC 243 |  |  |  | SCC 244 |  |  |  | SCC 245 |  |  |  | SCC 246 |  |  |  | SCC 247 |  |  |  | SCC 248 |  |  |  | SCC 249 |  |  |  | SCC 250 |  |  |  | SCC 251 |  |  |  | SCC 252 |  |  |  | SCC 253 |  |  |  | SCC 254 |  |  |  | SCC 255 |  |  |  | SCC 256 |  |  |  | SCC 257 |  |  |  | SCC 258 |  |  |  | SCC 259 |  |  |  | SCC 260 |  |  |  | SCC 261 |  |  |  | SCC 262 |  |  |  | SCC 263 |  |  |  | SCC 264 |  |  |  | SCC 265 |  |  |  | SCC 266 |  |  |  | SCC 267 |  |  |  | SCC 268 |  |  |  | SCC 269 |  |  |  | SCC 270 |  |  |  | SCC 271 |  |  |  |
|-------------|----------|--------------|--------------------------|--------------------------|------|-----|--|--|--|-------|--|--|--|-------|--|--|--|-------|--|--|--|-------|--|--|--|-------|--|--|--|-------|--|--|--|-------|--|--|--|-------|--|--|--|-------|--|--|--|--------|--|--|--|--------|--|--|--|--------|--|--|--|--------|--|--|--|--------|--|--|--|--------|--|--|--|--------|--|--|--|--------|--|--|--|--------|--|--|--|--------|--|--|--|--------|--|--|--|--------|--|--|--|--------|--|--|--|--------|--|--|--|--------|--|--|--|--------|--|--|--|--------|--|--|--|--------|--|--|--|--------|--|--|--|--------|--|--|--|--------|--|--|--|--------|--|--|--|--------|--|--|--|--------|--|--|--|--------|--|--|--|--------|--|--|--|--------|--|--|--|--------|--|--|--|--------|--|--|--|--------|--|--|--|--------|--|--|--|--------|--|--|--|--------|--|--|--|--------|--|--|--|--------|--|--|--|--------|--|--|--|--------|--|--|--|--------|--|--|--|--------|--|--|--|--------|--|--|--|--------|--|--|--|--------|--|--|--|--------|--|--|--|--------|--|--|--|--------|--|--|--|--------|--|--|--|--------|--|--|--|--------|--|--|--|--------|--|--|--|--------|--|--|--|--------|--|--|--|--------|--|--|--|--------|--|--|--|--------|--|--|--|--------|--|--|--|--------|--|--|--|--------|--|--|--|--------|--|--|--|--------|--|--|--|--------|--|--|--|--------|--|--|--|--------|--|--|--|--------|--|--|--|--------|--|--|--|--------|--|--|--|--------|--|--|--|--------|--|--|--|--------|--|--|--|--------|--|--|--|--------|--|--|--|--------|--|--|--|--------|--|--|--|--------|--|--|--|--------|--|--|--|--------|--|--|--|--------|--|--|--|--------|--|--|--|--------|--|--|--|--------|--|--|--|--------|--|--|--|--------|--|--|--|--------|--|--|--|--------|--|--|--|--------|--|--|--|--------|--|--|--|--------|--|--|--|--------|--|--|--|--------|--|--|--|--------|--|--|--|--------|--|--|--|---------|--|--|--|---------|--|--|--|---------|--|--|--|---------|--|--|--|---------|--|--|--|---------|--|--|--|---------|--|--|--|---------|--|--|--|---------|--|--|--|---------|--|--|--|---------|--|--|--|---------|--|--|--|---------|--|--|--|---------|--|--|--|---------|--|--|--|---------|--|--|--|---------|--|--|--|---------|--|--|--|---------|--|--|--|---------|--|--|--|---------|--|--|--|---------|--|--|--|---------|--|--|--|---------|--|--|--|---------|--|--|--|---------|--|--|--|---------|--|--|--|---------|--|--|--|---------|--|--|--|---------|--|--|--|---------|--|--|--|---------|--|--|--|---------|--|--|--|---------|--|--|--|---------|--|--|--|---------|--|--|--|---------|--|--|--|---------|--|--|--|---------|--|--|--|---------|--|--|--|---------|--|--|--|---------|--|--|--|---------|--|--|--|---------|--|--|--|---------|--|--|--|---------|--|--|--|---------|--|--|--|---------|--|--|--|---------|--|--|--|---------|--|--|--|---------|--|--|--|---------|--|--|--|---------|--|--|--|---------|--|--|--|---------|--|--|--|---------|--|--|--|---------|--|--|--|---------|--|--|--|---------|--|--|--|---------|--|--|--|---------|--|--|--|---------|--|--|--|---------|--|--|--|---------|--|--|--|---------|--|--|--|---------|--|--|--|---------|--|--|--|---------|--|--|--|---------|--|--|--|---------|--|--|--|---------|--|--|--|---------|--|--|--|---------|--|--|--|---------|--|--|--|---------|--|--|--|---------|--|--|--|---------|--|--|--|---------|--|--|--|---------|--|--|--|---------|--|--|--|---------|--|--|--|---------|--|--|--|---------|--|--|--|---------|--|--|--|---------|--|--|--|---------|--|--|--|---------|--|--|--|---------|--|--|--|---------|--|--|--|---------|--|--|--|---------|--|--|--|---------|--|--|--|---------|--|--|--|---------|--|--|--|---------|--|--|--|---------|--|--|--|---------|--|--|--|---------|--|--|--|---------|--|--|--|---------|--|--|--|---------|--|--|--|---------|--|--|--|---------|--|--|--|---------|--|--|--|---------|--|--|--|---------|--|--|--|---------|--|--|--|---------|--|--|--|---------|--|--|--|---------|--|--|--|---------|--|--|--|---------|--|--|--|---------|--|--|--|---------|--|--|--|---------|--|--|--|---------|--|--|--|---------|--|--|--|---------|--|--|--|---------|--|--|--|---------|--|--|--|---------|--|--|--|---------|--|--|--|---------|--|--|--|---------|--|--|--|---------|--|--|--|---------|--|--|--|---------|--|--|--|---------|--|--|--|---------|--|--|--|---------|--|--|--|---------|--|--|--|---------|--|--|--|---------|--|--|--|---------|--|--|--|---------|--|--|--|---------|--|--|--|---------|--|--|--|---------|--|--|--|---------|--|--|--|---------|--|--|--|---------|--|--|--|---------|--|--|--|---------|--|--|--|---------|--|--|--|---------|--|--|--|---------|--|--|--|---------|--|--|--|---------|--|--|--|---------|--|--|--|---------|--|--|--|---------|--|--|--|---------|--|--|--|---------|--|--|--|---------|--|--|--|---------|--|--|--|---------|--|--|--|---------|--|--|--|---------|--|--|--|---------|--|--|--|---------|--|--|--|---------|--|--|--|---------|--|--|--|---------|--|--|--|---------|--|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### 1.4.8 LTE Band 66 as PCC

**Table 19**  
**Maximum Output Powers**

|                   |                    |              |                          |               |        |                  |                          |                 |          |              |                          |                 |          |              | Power                    |                 |          |              |                          |                 |                            |                                  |       |       |      |       |       |       |
|-------------------|--------------------|--------------|--------------------------|---------------|--------|------------------|--------------------------|-----------------|----------|--------------|--------------------------|-----------------|----------|--------------|--------------------------|-----------------|----------|--------------|--------------------------|-----------------|----------------------------|----------------------------------|-------|-------|------|-------|-------|-------|
| Combination       | PCC Band           | PCC BW [MHz] | PCC [UL] Ch. Freq. [MHz] | PCC [UL] Mod. | PCC RB | PCC UL RB Offset | PCC [DL] Ch. Freq. [MHz] | DL Ant. Config. | SCC Band | SCC BW [MHz] | SCC [DL] Ch. Freq. [MHz] | DL Ant. Config. | SCC Band | SCC BW [MHz] | SCC [DL] Ch. Freq. [MHz] | DL Ant. Config. | SCC Band | SCC BW [MHz] | SCC [DL] Ch. Freq. [MHz] | DL Ant. Config. | LTE Power with DCA Enabled | LTE Single Carrier TxPower (dBm) |       |       |      |       |       |       |
| CA 12A+66A (1)    | LTE B66            | 1.4          | 132322                   | 1745          | QPSK   | 1                | 2                        | 66786           | 2145     | 4x4          | LTE B12                  | 10              | 5095     | 737.5        | 2x2                      | -               | -        | -            | -                        | -               | -                          | 23.37                            | 23.42 |       |      |       |       |       |
| CA 12A+66A (2)    | LTE B66            | 20           | 130372                   | 1720          | QPSK   | 1                | 50                       | 66536           | 2120     | 4x4          | LTE B12                  | 10              | 5095     | 737.5        | 2x2                      | -               | -        | -            | -                        | -               | -                          | 23.31                            | 23.36 |       |      |       |       |       |
| CA 5A+66A+66A     | LTE B66            | 20           | 130372                   | 1720          | QPSK   | 1                | 50                       | 66536           | 2120     | 4x4          | LTE B5                   | 10              | 2525     | 881.5        | 2x2                      | LTE B46         | 20       | 50665        | 5537.5                   | 2x2             | -                          | 23.31                            | 23.36 |       |      |       |       |       |
|                   | CA 13A+66A+66A     | LTE B66      | 20                       | 130372        | 1720   | QPSK             | 1                        | 50              | 66536    | 2120         | 4x4                      | LTE B13         | 10       | 5230         | 751                      | 2x2             | LTE B46  | 20           | 50665                    | 5537.5          | 2x2                        | -                                | 23.25 | 23.36 |      |       |       |       |
|                   | CA 46A+66A+66A     | LTE B66      | 20                       | 130372        | 1720   | QPSK             | 1                        | 50              | 66536    | 2120         | 4x4                      | LTE B66         | 20       | 67236        | 2190                     | 2x2             | LTE B46  | 20           | 50665                    | 5537.5          | 2x2                        | -                                | 23.29 | 23.36 |      |       |       |       |
|                   | CA 46A+66A+66A     | LTE B66      | 20                       | 130372        | 1720   | QPSK             | 1                        | 50              | 66536    | 2120         | 2x2                      | LTE B66         | 20       | 67236        | 2190                     | 4x4             | LTE B46  | 20           | 50665                    | 5537.5          | 2x2                        | -                                | 23.33 | 23.36 |      |       |       |       |
|                   | CA 46A+66A+66A     | LTE B66      | 20                       | 130372        | 1720   | QPSK             | 1                        | 50              | 66536    | 2120         | 4x4                      | LTE B66         | 20       | 66734        | 2193.8                   | 2x2             | LTE B46  | 20           | 50665                    | 5537.5          | 2x2                        | -                                | 23.30 | 23.36 |      |       |       |       |
|                   | CA 16A+66A         | LTE B66      | 20                       | 130372        | 1720   | QPSK             | 1                        | 50              | 66536    | 2120         | 4x4                      | LTE B66         | 20       | 67038        | 2170.2                   | 2x2             | LTE B66  | 20           | 67236                    | 2190            | 2x2                        | -                                | 23.31 | 23.36 |      |       |       |       |
|                   | CA 66C+66A         | LTE B66      | 20                       | 130372        | 1720   | QPSK             | 1                        | 50              | 66536    | 2120         | 2x2                      | LTE B66         | 20       | 66734        | 2193.8                   | 2x2             | LTE B66  | 20           | 67236                    | 2190            | 4x4                        | -                                | 23.36 | 23.36 |      |       |       |       |
|                   | CA 66A+66C         | LTE B66      | 20                       | 130372        | 1720   | QPSK             | 1                        | 50              | 66536    | 2120         | 2x2                      | LTE B66         | 20       | 67038        | 2170.2                   | 4x4             | LTE B66  | 20           | 67236                    | 2190            | 4x4                        | -                                | 23.47 | 23.36 |      |       |       |       |
|                   | CA 16C+66A         | LTE B66      | 20                       | 130372        | 1720   | QPSK             | 1                        | 50              | 66536    | 2120         | 4x4                      | LTE B66         | 20       | 66734        | 2193.8                   | 4x4             | LTE B66  | 20           | 67236                    | 2190            | 2x2                        | -                                | 23.49 | 23.36 |      |       |       |       |
|                   | CA 16A+66C         | LTE B66      | 20                       | 130372        | 1720   | QPSK             | 1                        | 50              | 66536    | 2120         | 4x4                      | LTE B66         | 20       | 67038        | 2170.2                   | 4x4             | LTE B66  | 20           | 67236                    | 2190            | 4x4                        | -                                | 23.30 | 23.36 |      |       |       |       |
| CA 16C+66A        | LTE B66            | 20           | 130372                   | 1720          | QPSK   | 1                | 50                       | 66536           | 2120     | 4x4          | LTE B66                  | 20              | 66734    | 2193.8       | 4x4                      | LTE B66         | 20       | 67236        | 2190                     | 4x4             | -                          | 23.25                            | 23.36 |       |      |       |       |       |
| CA 12A+2A+66A+71A | LTE B66            | 20           | 130372                   | 1720          | QPSK   | 1                | 50                       | 66536           | 2120     | 2x2          | LTE B2                   | 20              | 900      | 1960         | 4x4                      | LTE B2          | 20       | 700          | 1940                     | 2x2             | LTE B71                    | 20                               | 68761 | 6345  | 2x2  | 23.29 | 23.36 |       |
|                   | CA 2A+2A+66A+71A   | LTE B66      | 20                       | 130372        | 1720   | QPSK             | 1                        | 50              | 66536    | 2120         | 4x4                      | LTE B2          | 20       | 900          | 1960                     | 2x2             | LTE B2   | 20           | 700                      | 1940            | 2x2                        | LTE B71                          | 20    | 68761 | 6345 | 2x2   | 23.26 | 23.36 |
|                   | CA 12A+12A+66A+71A | LTE B66      | 20                       | 130372        | 1720   | QPSK             | 1                        | 50              | 66536    | 2120         | 2x2                      | LTE B2          | 20       | 900          | 1960                     | 4x4             | LTE B2   | 20           | 700                      | 1940            | 4x4                        | LTE B71                          | 20    | 68761 | 6345 | 2x2   | 23.31 | 23.36 |
|                   | CA 12A+2A+66A+71A  | LTE B66      | 20                       | 130372        | 1720   | QPSK             | 1                        | 50              | 66536    | 2120         | 4x4                      | LTE B2          | 20       | 900          | 1960                     | 4x4             | LTE B2   | 20           | 700                      |                 |                            |                                  |       |       |      |       |       |       |

|                                           |                                                                                                                                                 |                              |                                                                                       |                                 |
|-------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------|---------------------------------------------------------------------------------------|---------------------------------|
| FCC ID: A3LSMG998U                        |  <b>PCTEST</b><br><small>Proud to be part of element</small> | SAR EVALUATION REPORT        |  | Reviewed by:<br>Quality Manager |
| <b>Test Dates:</b><br>09/29/20 - 12/14/20 | <b>DUT Type:</b><br>Portable Handset                                                                                                            | APPENDIX F:<br>Page 10 of 16 |                                                                                       |                                 |

### Maximum Output Powers Continued

[illegible]

FCC ID: A3LSMG998U



# SAR EVALUATION REPORT



|              |                 |
|--------------|-----------------|
| Reviewed by: | Quality Manager |
|--------------|-----------------|

**Test Dates:**  
09/29/20 - 12/14/20

|                  |
|------------------|
| DUT Type:        |
| Portable Handset |

APPENDIX F:  
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### Maximum Output Powers Continued

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## Maximum Output Powers Continued

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         |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |       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|-------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----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|             |           | PCU (MHz) | PCU (MHz) | PCU (MHz) | PCU (MHz) | SCU (MHz) | SCU (MHz) | SCU (MHz) | SCU (MHz) | SCU (MHz) | SCU (MHz) | SCU (MHz) | SCU (MHz) | SCU (MHz) | SCU (MHz) | SCU (MHz) | SCU (MHz) | SCU (MHz) | SCU (MHz) | SCU (MHz) | SCU (MHz) | SCU (MHz) | SCU (MHz) | SCU (MHz) | SCU (MHz) | SCU (MHz) | SCU (MHz) | SCU (MHz) | SCU (MHz) | SCU (MHz) | SCU (MHz) | SCU (MHz) | SCU (MHz) | SCU (MHz) | SCU (MHz) | SCU (MHz) | SCU (MHz) | SCU (MHz) | SCU (MHz) | SCU (MHz) | SCU (MHz) | SCU (MHz) | SCU (MHz) | SCU (MHz) | SCU (MHz) | SCU (MHz) | SCU (MHz) | SCU (MHz) | SCU (MHz) | SCU (MHz) | SCU (MHz) | SCU (MHz) | SCU (MHz) | SCU (MHz) | SCU (MHz) | SCU (MHz) | SCU (MHz) | SCU (MHz) | SCU (MHz) | SCU (MHz) | SCU (MHz) | SCU (MHz) | SCU (MHz) | SCU (MHz) | SCU (MHz) | SCU (MHz) | SCU (MHz) | SCU (MHz) | SCU (MHz) | SCU (MHz) | SCU (MHz) | SCU (MHz) | SCU (MHz) | SCU (MHz) | SCU (MHz) | SCU (MHz) | SCU (MHz) | SCU (MHz) | SCU (MHz) | SCU (MHz) | SCU (MHz) | SCU (MHz) | SCU (MHz) | SCU (MHz) | SCU (MHz) | SCU (MHz) | SCU (MHz) | SCU (MHz) | SCU (MHz) | SCU (MHz) | SCU (MHz) | SCU (MHz) | SCU (MHz) | SCU (MHz) | SCU (MHz) | SCU (MHz) | SCU (MHz) | SCU (MHz) | SCU (MHz) | SCU (MHz) | SCU (MHz) | SCU (MHz) | SCU (MHz) | SCU (MHz) | SCU (MHz) | SCU (MHz) | SCU (MHz) | SCU (MHz) | SCU (MHz) | SCU (MHz) | SCU (MHz) | SCU (MHz) | SCU (MHz) | SCU (MHz) | SCU (MHz) | SCU (MHz) | SCU (MHz) | SCU (MHz) | SCU (MHz) | SCU (MHz) | SCU (MHz) | SCU (MHz) | SCU (MHz) | SCU (MHz) | SCU (MHz) | SCU (MHz) | SCU (MHz) | SCU (MHz) | SCU (MHz) | SCU (MHz) | SCU (MHz) | SCU (MHz) | SCU (MHz) | SCU (MHz) | SCU (MHz) | SCU (MHz) | SCU (MHz) | SCU (MHz) | SCU (MHz) | SCU (MHz) | SCU (MHz) | SCU (MHz) | SCU (MHz) | SCU (MHz) | SCU (MHz) | SCU (MHz) | SCU (MHz) | SCU (MHz) | SCU (MHz) | SCU (MHz) | SCU (MHz) | SCU (MHz) | SCU (MHz) | SCU (MHz) | SCU (MHz) | SCU (MHz) | SCU (MHz) | SCU (MHz) | SCU (MHz) | SCU (MHz) | SCU (MHz) | SCU (MHz) | SCU (MHz) | SCU (MHz) | SCU (MHz) | SCU 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(MHz) | SCU (MHz) | SCU (MHz) | SCU (MHz) | SCU (MHz) | SCU (MHz) | SCU (MHz) | SCU (MHz) | SCU (MHz) | SCU (MHz) | SCU (MHz) | SCU (MHz) | SCU (MHz) | SCU (MHz) | SCU (MHz) | SCU (MHz) | SCU (MHz) | SCU (MHz) | SCU (MHz) | SCU (MHz) | SCU (MHz) | SCU (MHz) | SCU (MHz) | SCU (MHz) | SCU (MHz) | SCU (MHz) | SCU (MHz) | SCU (MHz) | SCU (MHz) | SCU (MHz) | SCU (MHz) | SCU (MHz) | SCU (MHz) | SCU (MHz) | SCU (MHz) | SCU (MHz) |

### 1.4.9 LTE Band 25 as PCC

### Maximum Output Powers

| Combination     | PCB Band | PCC          |                      |                      |      | SEC1      |           |                      |                      | SEC2            |              |                      |                 | SEC3         |                      |                 |              | SEC4                 |                 |          |                              | Power                             |       |       |
|-----------------|----------|--------------|----------------------|----------------------|------|-----------|-----------|----------------------|----------------------|-----------------|--------------|----------------------|-----------------|--------------|----------------------|-----------------|--------------|----------------------|-----------------|----------|------------------------------|-----------------------------------|-------|-------|
|                 |          | PCB BW [MHz] | PCC [CU] Freq. [MHz] | PCC [LU] Freq. [MHz] | Mod. | PCCULB RB | PCCULB RB | PCC [CU] Freq. [MHz] | PCC [LU] Freq. [MHz] | DL Ant. Config. | SEC BW [MHz] | SEC [CU] Freq. [MHz] | DL Ant. Config. | SEC BW [MHz] | SEC [CU] Freq. [MHz] | DL Ant. Config. | SEC BW [MHz] | SEC [CU] Freq. [MHz] | DL Ant. Config. | SEC Band | LTE Tx Power with CA Enabled | LTE Single Carrier Tx Power (dBm) |       |       |
| CA_25A(25A)     | LTE B20  | 15           | 26115                | 18575                | QPSK | 1         | 36        | 8115                 | 19575                | 4ea             | LTE B10      | 20                   | 2527            | 881          | 2                    | 2               | -            | -                    | -               | -        | 23.66                        | 23.55                             |       |       |
| CA_25A(25A)     | LTE B20  | 15           | 26115                | 18575                | QPSK | 1         | 36        | 8115                 | 19575                | 4ea             | LTE B40      | 20                   | 5065            | 5537         | 2                    | 2               | -            | -                    | -               | -        | 23.63                        | 23.55                             |       |       |
| CA_25A(25A-26A) | LTE B20  | 15           | 26115                | 18575                | QPSK | 1         | 36        | 8115                 | 19575                | 4ea             | LTE B20      | 20                   | 8590            | 2985         | 2                    | 2               | LTE B20      | 5                    | 8865            | 8765     | 2                            | 2                                 | 23.66 | 23.55 |
| CA_25A(25A-26A) | LTE B20  | 15           | 26115                | 18575                | QPSK | 1         | 36        | 8115                 | 19575                | 4ea             | LTE B20      | 20                   | 8590            | 2985         | 2                    | 2               | LTE B20      | 5                    | 8865            | 8765     | 2                            | 2                                 | 23.71 | 23.55 |
| CA_25A(25A-26A) | LTE B20  | 15           | 26115                | 18575                | QPSK | 1         | 36        | 8115                 | 19575                | 4ea             | LTE B20      | 20                   | 8590            | 2985         | 2                    | 2               | LTE B20      | 5                    | 8865            | 8765     | 2                            | 2                                 | 23.66 | 23.55 |
| CA_25A(25A-41A) | LTE B20  | 15           | 26115                | 18575                | QPSK | 1         | 36        | 8115                 | 19575                | 4ea             | LTE B20      | 20                   | 8590            | 2985         | 2                    | 2               | LTE B41      | 20                   | 4020            | 2593     | 2                            | 2                                 | 23.51 | 23.55 |
| CA_25A(25A-41A) | LTE B20  | 15           | 26115                | 18575                | QPSK | 1         | 36        | 8115                 | 19575                | 4ea             | LTE B20      | 20                   | 8590            | 2985         | 2                    | 2               | LTE B41      | 20                   | 4020            | 2593     | 2                            | 2                                 | 23.60 | 23.55 |
| CA_25A(25A-41A) | LTE B20  | 15           | 26115                | 18575                | QPSK | 1         | 36        | 8115                 | 19575                | 4ea             | LTE B20      | 20                   | 8590            | 2985         | 2                    | 2               | LTE B41      | 20                   | 4020            | 2593     | 2                            | 2                                 | 23.63 | 23.55 |
| CA_25A(25A-41A) | LTE B20  | 15           | 26115                | 18575                | QPSK | 1         | 36        | 8115                 | 19575                | 4ea             | LTE B20      | 20                   | 8590            | 2985         | 2                    | 2               | LTE B41      | 20                   | 4020            | 2593     | 2                            | 2                                 | 23.81 | 23.55 |
| CA_25A(25A-41A) | LTE B20  | 15           | 26115                | 18575                | QPSK | 1         | 36        | 8115                 | 19575                | 4ea             | LTE B20      | 20                   | 8590            | 2985         | 2                    | 2               | LTE B41      | 20                   | 4020            | 2593     | 2                            | 2                                 | 23.65 | 23.55 |
| CA_25A(25A-41A) | LTE B20  | 15           | 26115                | 18575                | QPSK | 1         | 36        | 8115                 | 19575                | 4ea             | LTE B20      | 20                   | 8590            | 2985         | 2                    | 2               | LTE B41      | 20                   | 4020            | 2593     | 2                            | 2                                 | 23.69 | 23.55 |
| CA_25A(25A-41A) | LTE B20  | 15           | 26115                | 18575                | QPSK | 1         | 36        | 8115                 | 19575                | 4ea             | LTE B20      | 20                   | 8590            | 2985         | 2                    | 2               | LTE B41      | 20                   | 4020            | 2593     | 2                            | 2                                 | 23.75 | 23.55 |
| CA_25A(25A-41A) | LTE B20  | 15           | 26115                | 18575                | QPSK | 1         | 36        | 8115                 | 19575                | 4ea             | LTE B20      | 20                   | 8590            | 2985         | 2                    | 2               | LTE B41      | 20                   | 4020            | 2593     | 2                            | 2                                 | 23.75 | 23.55 |
| CA_25A(25A-41A) | LTE B20  | 15           | 26115                | 18575                | QPSK | 1         | 36        | 8115                 | 19575                | 4ea             | LTE B20      | 20                   | 8590            | 2985         | 2                    | 2               | LTE B41      | 20                   | 4020            | 2593     | 2                            | 2                                 | 23.66 | 23.55 |
| CA_25A(25A-41C) | LTE B20  | 15           | 26115                | 18575                | QPSK | 1         | 36        | 8115                 | 19575                | 4ea             | LTE B41      | 20                   | 4020            | 2593         | 2                    | 2               | LTE B41      | 20                   | 4020            | 2593     | 2                            | 2                                 | 23.65 | 23.55 |
| CA_25A(41C)     | LTE B20  | 15           | 26115                | 18575                | QPSK | 1         | 36        | 8115                 | 19575                | 4ea             | LTE B41      | 20                   | 4020            | 2593         | 2                    | 2               | LTE B41      | 20                   | 4020            | 2593     | 2                            | 2                                 | 23.66 | 23.55 |
| CA_25A(41C)     | LTE B20  | 15           | 26115                | 18575                | QPSK | 1         | 36        | 8115                 | 19575                | 4ea             | LTE B41      | 20                   | 4020            | 2593         | 2                    | 2               | LTE B41      | 20                   | 4020            | 2593     | 2                            | 2                                 | 23.65 | 23.55 |
| CA_25A(41C)     | LTE B20  | 15           | 26115                | 18575                | QPSK | 1         | 36        | 8115                 | 19575                | 4ea             | LTE B41      |                      |                 |              |                      |                 |              |                      |                 |          |                              |                                   |       |       |

ECC ID: A3I SMG998U



## SAR EVALUATION REPORT



|                 |
|-----------------|
| Reviewed by:    |
| Quality Manager |

**Test Dates:**  
09/29/20 - 12/14/20

|                  |                  |
|------------------|------------------|
| <b>DUT Type:</b> | Portable Handset |
|------------------|------------------|

APPENDIX F:  
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#### 1.4.10 LTE Band 30 as PCC

**Table 24**  
**Maximum Output Powers**

| Power                             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|-----------------------------------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| LTE Tx Power [dBm]                |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| LTE Single Carrier Tx Power (dBm) |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Power                             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Power                             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Power                             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Power                             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Power                             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Power                             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Power                             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Power                             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Power                             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Power                             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Power                             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Power                             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Power                             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Power                             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Power                             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Power                             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Power                             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Power                             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Power                             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Power                             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Power                             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Power                             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Power                             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Power                             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Power                             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Power                             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Power                             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Power                             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Power                             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Power                             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Power                             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Power                             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Power                             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Power                             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Power                             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Power                             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Power                             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Power                             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Power                             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Power                             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Power                             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Power                             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Power                             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Power                             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Power                             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Power                             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Power                             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Power                             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Power                             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Power                             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Power                             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Power                             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Power                             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Power                             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Power                             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Power                             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Power                             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Power                             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Power                             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Power                             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Power                             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Power                             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Power                             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Power                             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Power                             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Power                             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Power                             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Power                             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Power                             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Power                             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Power                             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Power                             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Power                             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Power                             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Power                             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Power                             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Power                             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Power                             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Power                             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Power                             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Power                             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Power                             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Power                             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Power                             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Power                             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Power                             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Power                             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Power                             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Power                             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Power                             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Power                             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Power                             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Power                             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Power                             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Power                             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Power                             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Power                             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Power                             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Power                             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Power                             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Power                             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Power                             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Power                             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Power                             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Power                             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Power                             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Power                             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Power                             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Power                             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Power                             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Power                             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Power                             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Power                             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Power                             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Power                             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Power                             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Power                             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Power                             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Power                             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Power                             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Power                             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Power                             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Power                             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Power                             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Power                             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Power                             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Power                             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Power                             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Power                             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Power                             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Power                             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Power                             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Power                             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Power                             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Power                             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Power                             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Power                             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Power                             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Power                             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Power                             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Power                             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Power                             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Power                             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Power                             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Power                             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
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| Power                             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Power                             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
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| Power                             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Power                             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Power                             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Power                             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Power                             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Power                             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Power                             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Power                             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Power                             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Power                             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Power                             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Power                             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Power                             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Power                             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Power                             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Power                             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Power                             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
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| Power                             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Power                             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Power                             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Power                             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Power                             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Power                             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Power                             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Power                             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Power                             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Power                             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Power                             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Power                             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Power                             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Power                             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Power                             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Power                             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Power                             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Power                             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Power                             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Power                             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Power                             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Power                             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Power                             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Power                             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Power                             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Power                             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Power                             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Power                             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Power                             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Power                             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Power                             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Power                             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Power                             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Power                             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Power                             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Power                             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Power                             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Power                             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Power                             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Power                             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Power                             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Power                             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Power                             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Power                             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Power                             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Power                             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Power                             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Power                             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Power                             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Power                             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Power                             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Power                             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Power                             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Power                             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Power                             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Power                             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Power                             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Power                             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Power                             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Power                             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Power                             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Power                             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Power                             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Power                             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Power                             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Power                             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Power                             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Power                             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Power                             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Power                             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Power                             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Power                             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Power                             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Power                             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Power                             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Power                             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Power                             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Power                             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Power                             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Power                             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Power                             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Power                             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Power                             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Power                             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Power                             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Power                             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Power                             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Power                             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Power                             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Power                             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Power                             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Power                             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Power                             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Power                             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Power                             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Power                             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Power                             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Power                             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Power                             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Power                             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Power                             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Power                             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Power                             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|                                   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

|                                           |                                                                                                                                                                                                                                            |                              |                                                                                       |                                 |
|-------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------|---------------------------------------------------------------------------------------|---------------------------------|
| FCC ID: A3LSMG998U                        |  <b>PCTEST</b><br><small>Proud to be part of</small>  <b>element</b> | SAR EVALUATION REPORT        |  | Reviewed by:<br>Quality Manager |
| <b>Test Dates:</b><br>09/29/20 - 12/14/20 | <b>DUT Type:</b><br>Portable Handset                                                                                                                                                                                                       | APPENDIX F:<br>Page 14 of 16 |                                                                                       |                                 |



## 1.4.11 LTE Band 41 as PCC

Table 25  
Maximum Output Powers

| Combination      | PCC Band | PCC BW [MHz] | PCC [U] Ch. | PCC [U] Freq. [MHz] | Mod. | PCC              |              | PCC [DL] Freq. [MHz] | DL Ant. Config. | SCC Band | SCC 1        |              | DL Ant. Config. | SCC Band | SCC 2        |              | DL Ant. Config. | SCC Band | SCC 3        |              | DL Ant. Config. | SCC Band | SCC 4        |              | DL Ant. Config. | Tx Power with DL CA | LTE Single Carrier Power (dBm) |              |              |       |       |       |
|------------------|----------|--------------|-------------|---------------------|------|------------------|--------------|----------------------|-----------------|----------|--------------|--------------|-----------------|----------|--------------|--------------|-----------------|----------|--------------|--------------|-----------------|----------|--------------|--------------|-----------------|---------------------|--------------------------------|--------------|--------------|-------|-------|-------|
|                  |          |              |             |                     |      | PCC UL RB Offset | PCC [DL] Ch. |                      |                 |          | SCC BW [MHz] | SCC [DL] Ch. |                 |          | SCC BW [MHz] | SCC [DL] Ch. |                 |          | SCC BW [MHz] | SCC [DL] Ch. |                 |          | SCC BW [MHz] | SCC [DL] Ch. |                 |                     |                                | SCC BW [MHz] | SCC [DL] Ch. |       |       |       |
| CA 1(A)1A (1)    | LTE B41  | 20           | 41400       | 2680                | QPSK | 1                | 50           | 41400                | 2680            | 4x4      | LTE B41      | 20           | 39750           | 2506     | 2x2          | LTE B41      | 20              | 39750    | 2506         | 2x2          | -               | -        | -            | -            | -               | -                   | 21.99                          | 24.00        |              |       |       |       |
| CA 41A 1(A)A (3) | LTE B41  | 20           | 41400       | 2680                | QPSK | 1                | 50           | 41400                | 2680            | 2x2      | LTE B41      | 20           | 39750           | 2506     | 4x4          | -            | -               | -        | -            | -            | -               | -        | -            | -            | -               | -                   | 21.99                          | 24.00        |              |       |       |       |
| CA 1(A)1A (1)    | LTE B41  | 20           | 41400       | 2680                | QPSK | 1                | 50           | 41400                | 2680            | 4x4      | LTE B41      | 20           | 39750           | 2506     | 4x4          | -            | -               | -        | -            | -            | -               | -        | -            | -            | -               | -                   | 21.99                          | 24.00        |              |       |       |       |
| CA 1(A)1C        | LTE B41  | 20           | 41400       | 2680                | QPSK | 1                | 50           | 41400                | 2680            | 4x4      | LTE B41      | 20           | 39948           | 2525.8   | 2x2          | LTE B41      | 20              | 39750    | 2506         | 2x2          | -               | -        | -            | -            | -               | -                   | -                              | 24.00        | 24.00        |       |       |       |
| CA 41C 1(A)C     | LTE B41  | 20           | 41400       | 2680                | QPSK | 1                | 50           | 41400                | 2680            | 2x2      | LTE B41      | 20           | 41292           | 2660.2   | 2x2          | LTE B41      | 20              | 39750    | 2506         | 4x4          | -               | -        | -            | -            | -               | -                   | -                              | 24.04        | 24.00        |       |       |       |
| CA 1(A)1C        | LTE B41  | 20           | 41400       | 2680                | QPSK | 1                | 50           | 41400                | 2680            | 2x2      | LTE B41      | 20           | 39948           | 2525.8   | 4x4          | LTE B41      | 20              | 39750    | 2506         | 4x4          | -               | -        | -            | -            | -               | -                   | -                              | 21.99        | 24.00        |       |       |       |
| CA 41C 1(A)C     | LTE B41  | 20           | 41400       | 2680                | QPSK | 1                | 50           | 41400                | 2680            | 4x4      | LTE B41      | 20           | 41292           | 2660.2   | 4x4          | LTE B41      | 20              | 39750    | 2506         | 2x2          | -               | -        | -            | -            | -               | -                   | -                              | 21.99        | 24.00        |       |       |       |
| CA 1(A)1D        | LTE B41  | 20           | 41400       | 2680                | QPSK | 1                | 50           | 41400                | 2680            | 4x4      | LTE B41      | 20           | 39948           | 2525.8   | 4x4          | LTE B41      | 20              | 39750    | 2506         | 4x4          | -               | -        | -            | -            | -               | -                   | -                              | 21.94        | 24.00        |       |       |       |
| CA 41D 1(A)D     | LTE B41  | 20           | 41400       | 2680                | QPSK | 1                | 50           | 41400                | 2680            | 4x4      | LTE B41      | 20           | 40146           | 2545.6   | 2x2          | LTE B41      | 20              | 39948    | 2525.8       | 2x2          | LTE B41         | 20       | 39750        | 2506         | 2x2             | -                   | -                              | -            | 21.97        | 24.00 |       |       |
| CA 1(A)1D        | LTE B41  | 20           | 41400       | 2680                | QPSK | 1                | 50           | 41400                | 2680            | 4x4      | LTE B41      | 20           | 40146           | 2545.6   | 4x4          | LTE B41      | 20              | 39948    | 2525.8       | 4x4          | LTE B41         | 20       | 39750        | 2506         | 4x4             | -                   | -                              | -            | 24.09        | 24.00 |       |       |
| CA 41D 1(A)D     | LTE B41  | 20           | 41400       | 2680                | QPSK | 1                | 50           | 41400                | 2680            | 2x2      | LTE B41      | 20           | 41292           | 2660.2   | 2x2          | LTE B41      | 20              | 41094    | 2640.4       | 2x2          | LTE B41         | 20       | 39750        | 2506         | 4x4             | -                   | -                              | -            | 24.00        | 24.00 |       |       |
| CA 1(A)1D        | LTE B41  | 20           | 41400       | 2680                | QPSK | 1                | 50           | 41400                | 2680            | 2x2      | LTE B41      | 20           | 40146           | 2545.6   | 2x2          | LTE B41      | 20              | 39948    | 2525.8       | 2x2          | LTE B41         | 20       | 39750        | 2506         | 2x2             | -                   | -                              | -            | 24.03        | 24.00 |       |       |
| CA 41D 1(A)D     | LTE B41  | 20           | 41400       | 2680                | QPSK | 1                | 50           | 41400                | 2680            | 4x4      | LTE B41      | 20           | 41292           | 2660.2   | 4x4          | LTE B41      | 20              | 41094    | 2640.4       | 4x4          | LTE B41         | 20       | 39750        | 2506         | 4x4             | -                   | -                              | -            | 24.11        | 24.00 |       |       |
| CA 1(A)1C        | LTE B41  | 20           | 41400       | 2680                | QPSK | 1                | 50           | 41400                | 2680            | 4x4      | LTE B41      | 20           | 41292           | 2660.2   | 4x4          | LTE B41      | 20              | 39948    | 2525.8       | 4x4          | LTE B41         | 20       | 39750        | 2506         | 4x4             | -                   | -                              | -            | 24.00        | 24.00 |       |       |
| CA 41C 1(A)C     | LTE B41  | 20           | 41400       | 2680                | QPSK | 1                | 50           | 41400                | 2680            | 2x2      | LTE B41      | 20           | 41292           | 2660.2   | 2x2          | LTE B41      | 20              | 39948    | 2525.8       | 4x4          | LTE B41         | 20       | 39750        | 2506         | 4x4             | -                   | -                              | -            | 21.93        | 24.00 |       |       |
| CA 1(A)1C        | LTE B41  | 20           | 41400       | 2680                | QPSK | 1                | 50           | 41400                | 2680            | 4x4      | LTE B41      | 20           | 41292           | 2660.2   | 4x4          | LTE B41      | 20              | 39948    | 2525.8       | 4x4          | LTE B41         | 20       | 39750        | 2506         | 4x4             | -                   | -                              | -            | 21.97        | 24.00 |       |       |
| CA 41C 1(A)C     | LTE B41  | 20           | 41400       | 2680                | QPSK | 1                | 50           | 41400                | 2680            | 4x4      | LTE B41      | 20           | 41292           | 2660.2   | 4x4          | LTE B41      | 20              | 41094    | 2640.4       | 4x4          | LTE B41         | 20       | 39750        | 2506         | 4x4             | -                   | -                              | -            | 24.03        | 24.00 |       |       |
| CA 1(A)1C        | LTE B41  | 20           | 41400       | 2680                | QPSK | 1                | 50           | 41400                | 2680            | 4x4      | LTE B41      | 20           | 41292           | 2660.2   | 4x4          | LTE B41      | 20              | 40146    | 2545.6       | 2x2          | LTE B41         | 20       | 39948        | 2525.8       | 2x2             | LTE B41             | 20                             | 39750        | 2506         | 2x2   | 24.07 | 24.00 |
| CA 41C 1(A)C     | LTE B41  | 20           | 41400       | 2680                | QPSK | 1                | 50           | 41400                | 2680            | 2x2      | LTE B41      | 20           | 41292           | 2660.2   | 2x2          | LTE B41      | 20              | 41094    | 2640.4       | 2x2          | LTE B41         | 20       | 39948        | 2525.8       | 4x4             | LTE B41             | 20                             | 39750        | 2506         | 4x4   | 24.11 | 24.00 |
| CA 1(A)1C        | LTE B41  | 20           | 41400       | 2680                | QPSK | 1                | 50           | 41400                | 2680            | 2x2      | LTE B41      | 20           | 40146           | 2545.6   | 4x4          | LTE B41      | 20              | 39948    | 2525.8       | 4x4          | LTE B41         | 20       | 39750        | 2506         | 4x4             | -                   | -                              | -            | 24.19        | 24.00 |       |       |
| CA 41C 1(A)C     | LTE B41  | 20           | 41400       | 2680                | QPSK | 1                | 50           | 41400                | 2680            | 4x4      | LTE B41      | 20           | 41292           | 2660.2   | 4x4          | LTE B41      | 20              | 41094    | 2640.4       | 4x4          | LTE B41         | 20       | 39948        | 2525.8       | 4x4             | LTE B41             | 20                             | 39750        | 2506         | 4x4   | 24.12 | 24.00 |
| CA 1(A)1C        | LTE B41  | 20           | 41400       | 2680                | QPSK | 1                | 50           | 41400                | 2680            | 4x4      | LTE B41      | 20           | 41292           | 2660.2   | 4x4          | LTE B41      | 20              | 41094    | 2640.4       | 4x4          | LTE B41         | 20       | 39948        | 2525.8       | 4x4             | LTE B41             | 20                             | 39750        | 2506         | 4x4   | 24.02 | 24.00 |

## 1.4.12 LTE Band 48 as PCC

Table 26  
Maximum Output Powers

| Combination | PCC Band | PCC BW [MHz] | PCC [U] Ch. | PCC [U] Freq. [MHz] | Mod.  | PCC              |             | PCC [DL] Freq. [MHz] | DL Ant. Config. | SCC Band | SCC 1        |             | DL Ant. Config. | SCC Band | SCC 2        |             | DL Ant. Config. | SCC Band | SCC 3        |             | DL Ant. Config. | SCC Band | SCC 4        |             | DL Ant. Config. | Power        |             |                     |             |                              |                                   |       |
|-------------|----------|--------------|-------------|---------------------|-------|------------------|-------------|----------------------|-----------------|----------|--------------|-------------|-----------------|----------|--------------|-------------|-----------------|----------|--------------|-------------|-----------------|----------|--------------|-------------|-----------------|--------------|-------------|---------------------|-------------|------------------------------|-----------------------------------|-------|
|             |          |              |             |                     |       | PCC UL RB Offset | PCC [U] Ch. |                      |                 |          | SCC BW [MHz] | SCC [U] Ch. |                 |          | SCC BW [MHz] | SCC [U] Ch. |                 |          | SCC BW [MHz] | SCC [U] Ch. |                 |          | SCC BW [MHz] | SCC [U] Ch. |                 | SCC BW [MHz] | SCC [U] Ch. | SCC [U] Freq. [MHz] | SCC [U] Ch. | LTE Tx Power with CA Enabled | LTE Single Carrier Tx Power [dBm] |       |
| CA 48A 48A  | LTE B48  | 20           | 55340       | 3560                | 16QAM | 1                | 50          | 55340                | 3560            | 2x2      | LTE B48      | 20          | 56640           | 3690     | 4x4          | -           | -               | -        | -            | -           | -               | -        | -            | -           | -               | -            | 21.93       | 22.99               |             |                              |                                   |       |
| CA 48A 48A  | LTE B48  | 20           | 55340       | 3560                | 16QAM | 1                | 50          | 55340                | 3560            | 4x4      | LTE B48      | 20          | 56640           | 3690     | 2x2          | -           | -               | -        | -            | -           | -               | -        | -            | -           | -               | -            | 21.98       | 22.99               |             |                              |                                   |       |
| CA 48A 48A  | LTE B48  | 20           | 55340       | 3560                | 16QAM | 1                | 50          | 55340                | 3560            | 4x4      | LTE B48      | 20          | 56640           | 3690     | 4x4          | -           | -               | -        | -            | -           | -               | -        | -            | -           | -               | -            | 21.98       | 22.99               |             |                              |                                   |       |
| CA 48A 48C  | LTE B48  | 20           | 55340       | 3560                | 16QAM | 1                | 50          | 55340                | 3560            | 4x4      | LTE B48      | 20          | 56640           | 3690     | 2x2          | LTE B48     | 20              | 56642    | 3670.2       | 2x2         | -               | -        | -            | -           | -               | -            | -           | 22.92               | 22.99       |                              |                                   |       |
| CA 48A 48C  | LTE B48  | 20           | 55340       | 3560                | 16QAM | 1                | 50          | 55340                | 3560            | 2x2      | LTE B48      | 20          | 55538           | 3579.8   | 2x2          | LTE B48     | 20              | 56640    | 3690         | 4x4         | LTE B48         | 20       | 56640        | 3690        | 2x2             | -            | -           | -                   | 22.93       | 22.99                        |                                   |       |
| CA 48A 48C  | LTE B48  | 20           | 55340       | 3560                | 16QAM | 1                | 50          | 55340                | 3560            | 4x4      | LTE B48      | 20          | 56640           | 3690     | 4x4          | LTE B48     | 20              | 56642    | 3670.2       | 4x4         | -               | -        | -            | -           | -               | -            | -           | 22.96               | 22.99       |                              |                                   |       |
| CA 48C 48A  | LTE B48  | 20           | 55340       | 3560                | 16QAM | 1                | 50          | 55340                | 3560            | 2x2      | LTE B48      | 20          | 55538           | 3579.8   | 2x2          | LTE B48     | 20              | 56640    | 3690         | 4x4         | LTE B48         | 20       | 56642        | 3670.2      | 4x4             | -            | -           | -                   | 22.99       | 22.99                        |                                   |       |
| CA 48C 48A  | LTE B48  | 20           | 55340       | 3560                | 16QAM | 1                | 50          | 55340                | 3560            | 4x4      | LTE B48      | 20          | 55538           | 3579.8   | 4x4          | LTE B48     | 20              | 56640    | 3690         | 2x2         | -               | -        | -            | -           | -               | -            | -           | 22.10               | 22.99       |                              |                                   |       |
| CA 48A 48D  | LTE B48  | 20           | 55340       | 3560                | 16QAM | 1                | 50          | 55340                | 3560            | 4x4      | LTE B48      | 20          | 56640           | 3690     | 2x2          | LTE B48     | 20              | 56642    | 3670.2       | 2x2         | LTE B48         | 20       | 56244        | 3650.4      | 2x2             | -            | -           | -                   | 22.92       | 22.99                        |                                   |       |
| CA 48D 48A  | LTE B48  | 20           | 55340       | 3560                | 16QAM | 1                | 50          | 55340                | 3560            | 2x2      | LTE B48      | 20          | 55538           | 3579.8   | 2x2          | LTE B48     | 20              | 55736    | 3599.6       | 2x2         | LTE B48         | 20       | 56640        | 3690        | 4x4             | -            | -           | -                   | 22.84       | 22.99                        |                                   |       |
| CA 48A 48D  | LTE B48  | 20           | 55340       | 3560                | 16QAM | 1                | 50          | 55340                | 3560            | 2x2      | LTE B48      | 20          | 56640           | 3690     | 4x4          | LTE B48     | 20              | 56642    | 3670.2       | 4x4         | LTE B48         | 20       | 56244        | 3650.4      | 4x4             | -            | -           | -                   | 22.89       | 22.99                        |                                   |       |
| CA 48D 48A  | LTE B48  | 20           | 55340       | 3560                | 16QAM | 1                | 50          | 55340                | 3560            | 4x4      | LTE B48      | 20          | 55538           | 3579.8   | 4x4          | LTE B48     | 20              | 55736    | 3599.6       | 4x4         | LTE B48         | 20       | 56640        | 3690        | 2x2             | -            | -           | -                   | 22.88       | 22.99                        |                                   |       |
| CA 48A 48D  | LTE B48  | 20           | 55340       | 3560                | 16QAM | 1                | 50          | 55340                | 3560            | 4x4      | LTE B48      | 20          | 56640           | 3690     | 4x4          | LTE B48     | 20              | 56642    | 3670.2       | 4x4         | LTE B48         | 20       | 56244        | 3650.4      | 4x4             | -            | -           | -                   | 22.78       | 22.99                        |                                   |       |
| CA 48D 48A  | LTE B48  | 20           | 55340       | 3560                | 16QAM | 1                | 50          | 55340                | 3560            | 4x4      | LTE B48      | 20          | 55538           | 3579.8   | 4x4          | LTE B48     | 20              | 55736    | 3599.6       | 4x4         | LTE B48         | 20       | 56640        | 3690        | 4x4             | -            | -           | -                   | 22.75       | 22.99                        |                                   |       |
| CA 48C 48C  | LTE B48  | 20           | 55340       | 3560                | 16QAM | 1                | 50          | 55340                | 3560            | 2x2      | LTE B48      | 20          | 55538           | 3579.8   | 2x2          | LTE B48     | 20              | 56640    | 3690         | 4x4         | LTE B48         | 20       | 56642        | 3670.2      | 4x4             | -            | -           | -                   | 22.93       | 22.99                        |                                   |       |
| CA 48C 48C  | LTE B48  | 20           | 55340       | 3560                | 16QAM | 1                | 50          | 55340                | 3560            | 4x4      | LTE B48      | 20          | 55538           | 3579.8   | 4x4          | LTE B48     | 20              | 56640    | 3690         | 2x2         | -               | -        | -            | -           | -               | -            | -           | 22.99               | 22.99       |                              |                                   |       |
| CA 48A 48E  | LTE B48  | 20           | 55340       | 3560                | 16QAM | 1                | 50          | 55340                | 3560            | 4x4      | LTE B48      | 20          | 56640           | 3690     | 2x2          | LTE B48     | 20              | 56642    | 3670.2       | 2x2         | LTE B48         | 20       | 56244        | 3650.4      | 2x2             | LTE B48      | 20          | 56640               | 3690        | 2x2                          | 22.94                             | 22.99 |
| CA 48E 48A  | LTE B48  | 20           | 55340       | 3560                | 16QAM | 1                | 50          | 55340                | 3560            | 2x2      | LTE B48      | 20          | 55538           | 3579.8   | 2x2          | LTE B48     | 20              | 55736    | 3599.6       | 2x2         | LTE B48         | 20       | 56640        | 3690        | 4x4             | -            | -           | -                   | 22.97       | 22.99                        |                                   |       |
| CA 48A 48E  | LTE B48  | 20           | 55340       | 3560                | 16QAM | 1                | 50          | 55340                | 3560            | 2x2      | LTE B48      | 20          | 56640           | 3690     | 4x4          | LTE B48     | 20              | 56642    | 3670.2       | 4x4         | LTE B48         | 20       | 56244        | 3650.4      | 4x4             | LTE B48      | 20          | 56640               | 3690        | 4x4                          | 22.96                             | 22.99 |
| CA 48E 48A  | LTE B48  | 20           | 55340       | 3560                | 16QAM | 1                | 50          | 55340                | 3560            | 4x4      | LTE B48      | 20          | 55538           | 3579.8   | 4x4          | LTE B48     | 20              | 55736    | 3599.6       | 4x4         | LTE B48         | 20       | 56640        | 3690        | 2x2             | -            | -           | -                   | 22.99       | 22.99                        |                                   |       |
| CA 48A 48E  | LTE B48  | 20           | 55340       | 3560                | 16QAM | 1                | 50          | 55340                | 3560            | 4x4      | LTE B48      | 20          | 56640           | 3690     | 4x4          | LTE B48     | 20              | 56642    | 3670.2       | 4x4         | LTE B48         | 20       | 56244        | 3650.4      | 4x4             | LTE B48      | 20          | 56640               | 3690        | 4x4                          | 22.74                             | 22.99 |
| CA 48E 48A  | LTE B48  | 20           | 55340       | 3560                | 16QAM | 1                | 50          | 55340                | 3560            | 4x4      | LTE B48      | 20          | 55538           | 3579.8   | 4x4          | LTE B48     | 20              | 55736    | 3599.6       | 4x4         | LTE B48         | 20       | 56640        | 3690        | 2x2             | -            | -           | -                   | 22.99       | 22.99                        |                                   |       |
| CA 48C 48C  | LTE B48  | 20           | 55340       | 3560                | 16QAM | 1                | 50          | 55340                | 3560            | 2x2      | LTE B48      | 20          | 55538           | 3579.8   | 2x2          | LTE B48     | 20              | 56640    | 3690         | 4x4         | LTE B48         | 20       | 56642        | 3670.2      | 4x4             | -            | -           | -                   | 22.93       | 22.99                        |                                   |       |
| CA 48C 48C  | LTE B48  | 20           | 55340       | 3560                | 16QAM | 1                | 50          | 55340                | 3560            | 4x4      | LTE B48      | 20          | 55538           | 3579.8   | 4x4          | LTE B48     | 20              | 56640    | 3690         | 2x2         | -               | -        | -            | -           | -               | -            | -           | 22.99               | 22.99       |                              |                                   |       |
| CA 48A 48E  | LTE B48  | 20           | 55340       | 3560                | 16QAM | 1                | 50          | 55340                | 3560            | 4x4      | LTE B48      | 20          | 56640           | 3690     | 4x4          | LTE B48     | 20              | 56642    | 3670.2       | 4x4         | LTE B48         | 20       | 56244        | 3650.4      | 4x4             | LTE B48      | 20          | 56640               | 3690        | 4x4                          | 22.90                             | 22.99 |
| CA 48E 48A  | LTE B48  | 20           | 55340       | 3560                | 16QAM | 1                | 50          | 55340                | 3560            | 2x2      | LTE B48      | 20          | 55538           | 3579.8   | 2x2          | LTE B48     | 20              | 55736    | 3599.6       | 2x2         | LTE B48         | 20       | 56640        | 3690        | 4x4             | -            | -           | -                   | 22.86       | 22.99                        |                                   |       |
| CA 48C 48E  | LTE B48  | 20           | 55340       | 3560                | 16QAM | 1                | 50          | 55340                | 3560            | 4x4      | LTE B48      | 20          | 55538           | 3579.8   | 4x4          | LTE B48     | 20              | 55736    | 3599.6       | 4x4         | LTE B48         | 20       | 56640        | 3690        | 2x2             | -            | -           | -                   | 22.92       | 22.99                        |                                   |       |
| CA 48E 48C  | LTE B48  | 20           | 55340       | 3560                | 16QAM | 1                | 50          | 55340                | 3560            | 4x4      | LTE B48      | 20          | 55538           | 3579.8   | 4x4          | LTE B48     | 20              | 55736    | 3599.6       | 4x4         | LTE B48         | 20       | 56640        | 3690        | 2x2             | -            | -           | -                   | 22.92       | 22.99                        |                                   |       |
| CA 48E 48C  | LTE B48  | 20           | 55340       | 3560                | 16QAM | 1                | 50          | 55340                | 3560            | 4x4      | LTE B48      | 20          | 55538           | 3579.8   | 4x4          | LTE B48     | 20              | 55736    | 3599.6       | 4x4         | LTE B48         | 20       | 56640        | 3690        | 2x2             | -            | -           | -                   | 22.86       | 22.99                        |                                   |       |
| CA 48E 48E  | LTE B48  | 20           | 55340       | 3560                | 16QAM | 1                | 50          | 55340                | 3560            | 4x4      | LTE B48      | 20          | 55538           | 3579.8   | 4x4          | LTE B48     | 20              | 55736    | 3599.6       | 4x4         | LTE B48         | 20       | 56640        | 3690        | 2x2             | -            | -           | -                   | 22.86       | 22.99                        |                                   |       |
| CA 48E 48E  | LTE B48  | 20           | 55340       | 3560                | 16QAM | 1                | 50          | 55340                | 3560            | 4x4      | LTE B48      | 20          | 55538           | 3579.8   | 4x4          | LTE B48     | 20              | 55736    | 3599.6       | 4x4         | LTE B48         | 20       | 56640        | 3690        | 2x2             | -            | -           | -                   | 22.86       | 22.99                        |                                   |       |
| CA 48E 48E  | LTE B48  | 20           | 55340       | 3560                | 16QAM | 1                | 50          | 55340                | 3560            | 4x4      | LTE B48      | 20          | 55538           | 3579.8   | 4x4          | LTE B48     | 20              | 55736    | 3599.6       | 4x4         | LTE B48         | 20       | 56640        | 3690        | 2x2             | -            | -           | -                   | 22.86       | 22.99                        |                                   |       |
| CA 48E 48E  | LTE B48  | 20           | 55340       | 3560                | 16QAM | 1                | 50          | 55340                | 3560            | 4x4      | LTE B48      | 20          | 55538           | 3579.8   | 4x4          | LTE B48     | 20              | 55736    | 3599.6       | 4x4         | LTE B48         | 20       | 56640        | 3690        | 2x2             | -            | -           | -                   | 22.86       | 22.99                        |                                   |       |
| CA 48E 48E  | LTE B48  | 20           | 55340       | 3560                | 16QAM | 1                | 50          | 55340                | 3560            | 4x4      | LTE B48      | 20          | 55538           | 3579.8   | 4x4          | LTE B48     | 20              | 55736    | 3599.6       | 4x4         | LTE B48         | 20       | 56640        | 3690        | 2x2             | -            | -           | -                   | 22.86       | 22.99                        |                                   |       |
| CA 48E 48E  | LTE B48  | 20           | 55340       | 3560                | 16QAM | 1                | 50          | 55340                | 3560            | 4x4      | LTE B48      | 20          | 55538           | 3579.8   | 4x4          | LTE B48     | 20              | 55736    | 3599.6       | 4x4         | LTE B48         | 20       | 56640        | 3690        | 2x2             | -            | -           | -                   | 22.86       | 22.99                        |                                   |       |
| CA 48E 48E  | LTE B48  | 20           | 55340       | 3560                | 16QAM | 1                | 50          | 55340                | 3560            | 4x4      | LTE B48      | 20          | 55538           | 3579.8   | 4x4          | LTE B48     | 20              | 55736    | 3599.6       | 4x4         | LTE B48         | 20       | 56640        | 3690        | 2x2             | -            | -           | -                   | 22.86       | 22.99                        |                                   |       |
| CA 48E 48E  | LTE B48  | 20           | 55340       | 3560                | 16QAM | 1                | 50          | 55340                | 3560            | 4x4      | LTE B48      | 20          | 55538           | 3579.8   | 4x4          | LTE B48     | 20              | 55736    | 3599.6       | 4x4         | LTE B48         | 20       | 56640        | 3690        | 2x2             | -            | -           | -                   | 22.86       | 22.99                        |                                   |       |
| CA 48E 48E  | LTE B48  | 20           | 55340       | 3560                | 16QAM | 1                | 50          | 55340                | 3560            | 4x4      | LTE B48      | 20          | 55538           | 3579.8   | 4x4          | LTE B48     | 20              | 55736    | 3599.6       | 4x4         | LTE B48         | 20       | 56640        | 3690        | 2x2             | -            | -           | -                   | 22.86       | 22.99                        |                                   |       |
| CA 48E 48E  | LTE B48  | 20           | 55340       | 3560                | 16QAM | 1                | 50          | 55340                | 3560            | 4x4      | LTE B48      | 20          | 55538           | 3579.8   | 4x4          | LTE B48     | 20              | 55736    | 3599.6       | 4x4         | LTE B48         | 20       | 56640        | 3690        | 2x2             | -            | -           | -                   | 22.86       | 22.99                        |                                   |       |
| CA 48E 48E  | LTE B48  | 20           | 55340       | 3560                | 16QAM | 1                | 50          | 55340                | 3560            | 4x4      | LTE B48      | 20          | 55538           | 3579.8   | 4x4          | LTE B48     | 20              | 55736    | 3599.6       | 4x4         | LTE B48         | 20       | 56640        | 3690        | 2x2             | -            | -           | -                   | 22.86       | 22.99                        |                                   |       |
| CA 48E 48E  | LTE B48  | 20           | 55340       | 3560                | 16QAM | 1                | 50          | 55340                | 3560            | 4x4      | LTE B48      | 20          | 55538           | 3579.8   | 4x4          | LTE B48     | 20              | 55736    | 3599.6       | 4x4         | LTE B48         | 20       | 56640        | 3690        | 2x2             | -            | -           | -                   | 22.86       | 22.99                        |                                   |       |
| CA 48E 48E  | LTE B48  | 20           | 55340       | 3560                | 16QAM | 1                | 50          | 55340                | 3560            | 4x4      | LTE B48      | 20          | 55538           | 3579.8   | 4x4          | LTE B48     | 20              | 55736    | 3599.6       | 4x4         | LTE B48         | 20       | 56640        | 3690        | 2x2             | -            | -           | -                   | 22.86       | 22.99                        |                                   |       |
| CA 48E 48E  | LTE B48  | 20           | 55340       | 3560                | 16QAM | 1                | 50          | 55340                | 3560            | 4x4      | LTE B48      | 20          | 55538           | 3579.8   | 4x4          | LTE B48     | 20              | 55736    | 3599.6       | 4x4         | LTE B48         | 20       | 56640        | 3690        | 2x2             | -            | -           | -                   | 22.86       | 22.99                        |                                   |       |
| CA 48E 48E  | LTE B48  | 20           | 55340       | 3560                | 16QAM | 1                | 50          | 55340                | 3560            | 4x4      | LTE B48      | 20          | 55538           | 3579.8   | 4x4          | LTE B48     | 20              | 55736    | 3599.6       | 4x4         | LTE B48         | 20       | 56640        | 3690        | 2x2             | -            | -           | -                   | 22.86       | 22.99                        |                                   |       |
| CA 48E 48E  | LTE B48  | 20           | 55340       | 3560                | 16QAM | 1                | 50          | 55340                | 3560            | 4x4      | LTE B48      | 20          | 55538           | 3579.8   | 4x4          | LTE B48     | 20              | 55736    | 3599.6       | 4x4         | LTE B48         | 20       | 56640        | 369         |                 |              |             |                     |             |                              |                                   |       |

## 1.5 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 ULCA active.

### 1.5.1 DL Carrier Aggregation RF Conducted Powers

**Table 27**  
**Maximum Output Powers**

[illegible]

### 1.5.2 DL Carrier Aggregation with DL 4x4 MIMO RF Conducted Powers

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

**Table 28**  
**Maximum Output Powers**

| PCC         |          |              |              |                      |      |            |                  |              |                      |                 | SCC 1    |              |              |                      |      |            |                  |              |                      |                 |                                     | Power               |  |  |
|-------------|----------|--------------|--------------|----------------------|------|------------|------------------|--------------|----------------------|-----------------|----------|--------------|--------------|----------------------|------|------------|------------------|--------------|----------------------|-----------------|-------------------------------------|---------------------|--|--|
| Combination | PCC Band | PCC BW [MHz] | PCC (UL) Ch. | PCC (UL) Freq. [MHz] | Mod. | PCC UL# RB | PCC UL RB Offset | PCC (DL) Ch. | PCC (DL) Freq. [MHz] | DL Ant. Config. | SCC Band | SCC BW [MHz] | SCC (UL) Ch. | SCC (UL) Freq. [MHz] | Mod. | SCC UL# RB | SCC UL RB Offset | SCC (DL) Ch. | SCC (DL) Freq. [MHz] | DL Ant. Config. | ULCA Tx Power with add'l CA config. | 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             | 23.72                               | 23.72               |  |  |
| CA_{{66C}}  | LTE B66  | 20           | 132072       | 1720                 | QPSK | 1          | 99               | 66536        | 2120                 | 4x4             | LTE B66  | 20           | 132270       | 1739.8               | QPSK | 1          | 99               | 66734        | 2139.8               | 4x4             | 23.90                               | 23.90               |  |  |

|             | PCC      |              |              |                      |      |             |                    |              |                      |                 | SCC 1    |              |              |                      |      |             |                    |              |                      |                 | Power                               |                     |  |
|-------------|----------|--------------|--------------|----------------------|------|-------------|--------------------|--------------|----------------------|-----------------|----------|--------------|--------------|----------------------|------|-------------|--------------------|--------------|----------------------|-----------------|-------------------------------------|---------------------|--|
| Combination | PCC Band | PCC BW [MHz] | PCC [UL] Ch. | PCC [UL] Freq. [MHz] | Mod. | PCC [UL] RB | PCC [UL] RB Offset | PCC [UL] 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. | ULCA Tx Power (dBm) |  |
| CA [48C]    | LTE B48  | 20           | 55773        | 3603.3               | QPSK | 1           | 0                  | 55773        | 3603.3               | 4x4             | LTE B48  | 20           | 55575        | 3583.5               | QPSK | 1           | 99                 | 55971        | 3623.1               | 4x4             | 22.69                               | 22.69               |  |

[illegible]

|                                    |                                                                                                                                                                                                                                                               |                                 |
|------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------|
| FCC ID: A3LSMG998U                 |    | Reviewed by:<br>Quality Manager |
| Test Dates:<br>09/29/20 - 12/14/20 | DUT Type:<br>Portable Handset                                                                                                                                                                                                                                 | APPENDIX F:<br>Page 16 of 16    |