

# **TEST REPORT**

**Report Number:** R15103618-E12

**Applicant :** Sony Corporation  
1-7-1 Konan Minato-ku  
Tokyo, 108-0075, Japan

**FCC ID :** PY7-46195Y

**EUT Description :** LTE/5G Portable Data Transmitter with BT, DTS/UNII a/b/g/n/ac/ax  
and GPS

**Test Standard(s) :** ANSI C63.26:2015 – Conducted output power

**Date Of Issue:**  
2024-03-27

**Prepared by:**  
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Revision History

| Rev. | Issue Date | Revisions                                                         | Revised By        |
|------|------------|-------------------------------------------------------------------|-------------------|
| V1   | 2024-03-25 | Initial issue                                                     | Richard Jankovics |
| V2   | 2024-03-27 | Removed combination list to reference manufacturer documentation. | Richard Jankovics |

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## 1. ATTESTATION OF TEST RESULTS

**COMPANY NAME:** Sony Corporation  
1-7-1 Konan Minato-ku  
Tokyo, 108-0075, Japan

**EUT DESCRIPTION:** LTE/5G Portable Data Transmitter with BT, DTS/UNII a/b/g/n/ac/ax and GPS

**SERIAL NUMBER:** QV77008VJP

**FCC ID:** PY7-46195Y

**SAMPLE RECEIPT DATE:** 2023-12-18

**DATE TESTED:** 2024-03-04 to 2024-03-23

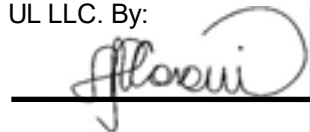
| APPLICABLE STANDARDS           |              |
|--------------------------------|--------------|
| STANDARD                       | TEST RESULTS |
| FCC KDB 941225 D05A §C.b)3)ii) | Complies     |

UL LLC tested the above equipment in accordance with the requirements set forth in the above standards. The test results show that the equipment tested is capable of demonstrating compliance with the requirements as documented in this report.

The results documented in this report apply only to the tested sample, under the conditions and modes of operation as described herein. It is the manufacturer's responsibility to assure that additional production units of this model are manufactured with identical electrical and mechanical components. All samples tested were in good operating condition throughout the entire test program. Measurement Uncertainties are published for informational purposes only and were not taken into account unless noted otherwise.

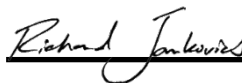
This document may not be altered or revised in any way unless done so by UL LLC and all revisions are duly noted in the revisions section. Any alteration of this document not carried out by UL LLC will constitute fraud and shall nullify the document.

Approved & Released For  
UL LLC. By:



Dan Corona  
Operations Leader  
Consumer Technology Division  
UL Verification Services Inc.

Prepared By:



Richard Jankovics  
Staff Engineer  
Consumer Technology Division  
UL LLC

## 2. SUMMARY OF TEST RESULTS

This report contains data provided by the applicant which can impact the validity of results. UL LLC is only responsible for the validity of results after the integration of the data provided by the customer. Below is a list of the data provided by the customer:

- 1) Cable loss (port adapter)
- 2) Supported bands, bandwidths, modulations, power settings, supported DLCA combinations, and MPR configurations.
- 3) Worst-case BW and modulation for maximum output power for each band requiring SAR testing.

Measurements confirmed when downlink carrier aggregation is active, uplink maximum output power remains within the specified tune-up tolerance limits and not more than 1/4 dB higher than the maximum output power measured when downlink carrier aggregation inactive, as specified in FCC KDB 941225 D05A §C.b)3)ii).

This report does not address SAR testing; this is a limited scope report addressing the conducted output power for downlink carrier aggregation active relative to inactive in Max power state.

## 3. TEST METHODOLOGY

The tests documented in this report were performed in accordance with the following:

- ANSI C63.26:2015
- FCC KDB 971168 D01 v03r01: Power Meas License Digital Systems
- FCC KDB 941225 D05 SAR for LTE Devices v02r05
- FCC KDB 941225 D05A LTE Rel.10 KDB Inquiry Sheet v01r02
- TCB Workshop April 2016; RF Exposure Procedures (LTE Carrier Aggregation for DL)
- TCB Workshop November 2017; RF Exposure Procedures (LTE UL/DL Carrier Aggregation SAR)
- TCB Workshop April 2018; RF Exposure Procedures (LTE DL CA SAR Test Exclusion)
- TCB Workshop April 2015; RF Exposure Procedures (Overlapping LTE Bands)

## 4. FACILITIES AND ACCREDITATION

UL LLC is accredited by A2LA, certification # 0751.06, for all testing performed within the scope of this report. Testing was performed at the locations noted below.

|                                     | Address                                                                      | ISED CABID | ISED Company Number | FCC Registration |
|-------------------------------------|------------------------------------------------------------------------------|------------|---------------------|------------------|
| <input checked="" type="checkbox"/> | Building:<br>2800 Perimeter Park Dr. Suite B<br>Morrisville, NC 27560, U.S.A | US0067     | 27265               | 825374           |

## 5. DECISION RULES AND MEASUREMENT UNCERTAINTY

### 5.1. METROLOGICAL TRACEABILITY

All test and measuring equipment utilized to perform the tests documented in this report are calibrated on a regular basis, with a maximum time between calibrations of one year or the manufacturers' recommendation, whichever is less, and where applicable is traceable to recognized national standards.

### 5.2. DECISION RULES

The Decision Rule is based on Simple Acceptance in accordance with ISO Guide 98-4:2012 Clause 8.2. (Measurement uncertainty is not taken into account when stating conformity with a specified requirement.)

### 5.3. MEASUREMENT UNCERTAINTY

Where relevant, the following measurement uncertainty levels have been estimated for tests performed on the apparatus:

| PARAMETER                  | $U_{Lab}$    |
|----------------------------|--------------|
| RF output power, conducted | 0.45 dB (AV) |
| Temperature                | 0.57°C       |
| Humidity                   | 3.39%        |

Uncertainty figures are valid to a confidence level of 95%.

## 6. EQUIPMENT UNDER TEST

### 6.1. DESCRIPTION OF EUT

The EUT is an LTE/5G Portable Data Transmitter with BT, DTS/UNII a/b/g/n/ac/ax and GPS. This test report covers the LTE radio portion of the EUT.

The EUT supports the following LTE Bands and their antenna configurations:

| LTE and 5G NR Bands | Main 1 Antenna | Main 2 Antenna | Sub Antenna            | Sub-UHB Antenna | Cell 3rd Antenna | Cell 4 <sup>th</sup> Antenna |
|---------------------|----------------|----------------|------------------------|-----------------|------------------|------------------------------|
| LTE Band 2          | -              | Y              | Y (EN-DC) <sup>1</sup> | -               | -                | -                            |
| LTE Band 4          | -              | Y              | Y (EN-DC) <sup>1</sup> | -               | -                | -                            |
| LTE Band 5          | Y              | -              | Y                      | -               | -                | -                            |
| LTE Band 12         | Y              | -              | Y                      | -               | -                | -                            |
| LTE Band 13         | Y              | -              | Y                      | -               | -                | -                            |
| LTE Band 17         | Y              | -              | Y                      | -               | -                | -                            |
| LTE Band 25         | -              | Y              | -                      | -               | -                | -                            |
| LTE Band 30         | -              | Y              | Y (EN-DC) <sup>1</sup> | -               | -                | -                            |
| LTE Band 41         | -              | Y              | -                      | -               | -                | -                            |
| LTE Band 48         | Y              | -              | -                      | Y               | -                | -                            |
| LTE Band 66         | -              | Y              | Y (EN-DC)              | -               | -                | -                            |
| LTE Band 71         | Y              | -              | -                      | -               | -                | -                            |

#### Notes:

1. LTE2, LTE30, and LTE66 can transmit on Sub antenna an EN-DC configuration only.

### 6.2. SOFTWARE AND FIRMWARE

The EUT firmware installed during testing was version 0.143..

### 6.3. DESCRIPTION OF TEST SETUP

#### Test Setup

The EUT was connected to a base station simulator and set to transmit at max power for LTE testing. All LTE bands conducted average power is obtained from the CMW500 telecommunication test sets connected together via CMWC to support higher DLCA combinations.

7. TEST AND MEASUREMENT EQUIPMENT

The following test and measurement equipment was utilized for the tests documented in this report:

Test Equipment Used

| Name of Equipment      | Manufacturer | Type/Model | Serial No. | Cal. Date  | Cal. Due Date |
|------------------------|--------------|------------|------------|------------|---------------|
| Netw ork Analyzer      | Keysight     | E5063A     | MY54100681 | 8/4/2023   | 8/4/2024      |
| Base Station Simulator | R & S        | CMW 500    | 170733     | 1/3/2024   | 1/3/2025      |
| Base Station Simulator | R & S        | CMW 500    | 170732     | 12/18/2023 | 12/18/2024    |
| Base Station Simulator | R & S        | CMW 500    | 170193     | 1/16/2024  | 1/16/2025     |
| Base Station Simulator | R & S        | CMW 500    | 170194     | 6/6/2023   | 6/6/2024      |



## 8. LTE DOWN-LINK CARRIER AGGREGATION

The following tests were conducted according to the test requirements outlined in section 6.2 of the 3GPP TS36.101 specification.

UE Power Class: 3 (23 +/- 2dBm). The allowed Maximum Power Reduction (MPR) for the maximum output power due to higher order modulation and transmit bandwidth configuration (resource blocks) is specified in Table 6.2.3-1 of the 3GPP TS36.101.

**Table 6.2.3-1: Maximum Power Reduction (MPR) for Power Class 1, 2 and 3**

| Modulation | Channel bandwidth / Transmission bandwidth ( $N_{RB}$ ) |         |       |        |        |        | MPR (dB) |
|------------|---------------------------------------------------------|---------|-------|--------|--------|--------|----------|
|            | 1.4 MHz                                                 | 3.0 MHz | 5 MHz | 10 MHz | 15 MHz | 20 MHz |          |
| QPSK       | > 5                                                     | > 4     | > 8   | > 12   | > 16   | > 18   | ≤ 1      |
| 16 QAM     | ≤ 5                                                     | ≤ 4     | ≤ 8   | ≤ 12   | ≤ 16   | ≤ 18   | ≤ 1      |
| 16 QAM     | > 5                                                     | > 4     | > 8   | > 12   | > 16   | > 18   | ≤ 2      |
| 64 QAM     | ≤ 5                                                     | ≤ 4     | ≤ 8   | ≤ 12   | ≤ 16   | ≤ 18   | ≤ 2      |
| 64 QAM     | > 5                                                     | > 4     | > 8   | > 12   | > 16   | > 18   | ≤ 3      |
| 256 QAM    | ≥ 1                                                     |         |       |        |        |        | ≤ 5      |

The allowed A-MPR values specified below in Table 6.2.4.-1 of 3GPP TS36.101 are in addition to the allowed MPR requirements. All the measurements below were performed with A-MPR disabled, by using Network Signaling Value of "NS\_01".

**Table 6.2.4-1: Additional Maximum Power Reduction (A-MPR)**

| Network Signalling value | Requirements (subclause) | E-UTRA Band | Channel bandwidth (MHz) | Resources Blocks ( $N_{RB}$ ) | A-MPR (dB) |
|--------------------------|--------------------------|-------------|-------------------------|-------------------------------|------------|
| NS_01                    | 6.6.2.1.1                | Table 5.5-1 | 1.4, 3, 5, 10, 15, 20   | Table 5.6-1                   | N/A        |

**Maximum Output Power (Tune-up Limit) for LTE**

According to April 2015 TCB workshop, SAR test exclusion can be applied for testing overlapping LTE bands as follows:

- a) The maximum output power, including tolerance, for the smaller band must be  $\leq$  the larger band to qualify for the SAR test exclusion.
- b) The channel bandwidth and other operating parameters for the smaller band must be fully supported by the larger band.
  - LTE Band 2 (1850-1910 MHz) is covered by LTE Band 25 (1850-1915 MHz)
  - LTE Band 4 (1710-1755 MHz) is covered by LTE Band 66 (1710-1780 MHz)

| Mode / Band       | Antenna      | Maximum output power (dBm)<br>Max Power State |
|-------------------|--------------|-----------------------------------------------|
| LTE Band 71       | <b>Main1</b> | 25.0                                          |
| LTE Band 12       | <b>Main1</b> | 25.0                                          |
| LTE Band 17       | <b>Main1</b> | 25.0                                          |
| LTE Band 13       | <b>Main1</b> | 25.0                                          |
| LTE Band 5        | <b>Main1</b> | 25.0                                          |
| LTE Band 66 (AWS) | <b>Main2</b> | 25.0                                          |
| LTE Band 4 (AWS)  | <b>Main2</b> | 25.0                                          |
| LTE Band 25 (PCS) | <b>Main2</b> | 25.0                                          |
| LTE Band 2 (PCS)  | <b>Main2</b> | 25.0                                          |
| LTE Band 30       | <b>Main2</b> | 22.4                                          |
| LTE Band 41 PC3   | <b>Main2</b> | 25.0                                          |
| LTE Band 48       | <b>Main1</b> | 21.5                                          |

The complete list of supported combinations of the device for DL Inter-band and DL Intra-band combinations are included in the manufacturer documentation.

When carrier aggregation is limited to downlink only, uplink maximum output power (single carrier) is measured for the supported combinations of downlink carrier aggregation listed in the table below. In applying the power measurement procedures of KDB 941225 D05A and April 2018 TCB workshop for DL CA to qualify for UL SAR test exclusion, power measurement is required only for the subset in each row with the largest combination of frequency bands and CCs (far right most configuration highlighted in the table below).

**2CC DL CA SISO Measured Results**

| E-UTRA CA configuration | Limitation | CC1 (UL) |          |         |            |           | CC1 (DL) |         |            | CC2 (DL) |         |            | Aggregated BW | CA Inactive (dbm) | CA Active (dbm) | Delta |
|-------------------------|------------|----------|----------|---------|------------|-----------|----------|---------|------------|----------|---------|------------|---------------|-------------------|-----------------|-------|
|                         |            | Mode     | BW (MHz) | Channel | Freq (MHz) | RB Offset | BW (MHz) | Channel | Freq (MHz) | BW (MHz) | Channel | Freq (MHz) |               |                   |                 |       |
| CA_41C                  | (none)     | 16QAM    | 20       | 41055   | 2636.5     | 1.50      | 20       | 41055   | 2636.5     | 20       | 41.238  | 2654.8     | 40            | 23.93             | 23.84           | -0.09 |

**3CC DL CA SISO Measured Results**

| E-UTRA CA configuration | Limitation        | CC1 (UL) |          |         |            |           | CC1 (DL) |         |            |          |         | CC2 (DL)   |          |         |            |          | CC3 (DL) |            |          |         |            | Aggregated BW | CA Inactive (dBm) | CA Active (dBm) | Delta |
|-------------------------|-------------------|----------|----------|---------|------------|-----------|----------|---------|------------|----------|---------|------------|----------|---------|------------|----------|----------|------------|----------|---------|------------|---------------|-------------------|-----------------|-------|
|                         |                   | Mode     | BW (MHz) | Channel | Freq (MHz) | RB Offset | BW (MHz) | Channel | Freq (MHz) | BW (MHz) | Channel | Freq (MHz) | BW (MHz) | Channel | Freq (MHz) | BW (MHz) | Channel  | Freq (MHz) | BW (MHz) | Channel | Freq (MHz) |               |                   |                 |       |
| CA_12B-66A              | (none)            | 16QAM    | 5        | 23035   | 701.5      | 1.12      | 5        | 5035    | 731.5      | 10       | 5143    | 742.3      | 20       | 132322  | 2170.0     | 35       | 23.15    | 23.16      | 0.01     |         |            |               |                   |                 |       |
|                         |                   | QPSK     | 20       | 132322  | 1745.0     | 1.50      | 20       | 66786   | 2145.0     | 5        | 5035    | 731.5      | 10       | 5143    | 742.3      | 35       | 23.82    | 23.72      | -0.10    |         |            |               |                   |                 |       |
| CA_13A-46A-66A          | B46 SCC Only      | 16QAM    | 10       | 23230   | 782.0      | 1.25      | 10       | 5230    | 751.0      | 20       | 66786   | 2145.0     | 20       | 50690   | 5540.0     | 50       | 23.72    | 23.61      | -0.11    |         |            |               |                   |                 |       |
|                         |                   | QPSK     | 20       | 132322  | 1745.0     | 1.50      | 20       | 66786   | 2145.0     | 10       | 5230    | 751.0      | 20       | 50690   | 5540.0     | 50       | 23.94    | 23.75      | -0.19    |         |            |               |                   |                 |       |
| CA_41D                  | (none)            | 16QAM    | 20       | 40437   | 2574.7     | 1.50      | 20       | 40437   | 2574.7     | 20       | 40620   | 2593.0     | 20       | 40803   | 2611.3     | 60       | 23.68    | 23.73      | 0.05     |         |            |               |                   |                 |       |
| CA_46A-48A-66A          | B46, B48 SCC Only | QPSK     | 20       | 132322  | 1745.0     | 1.50      | 20       | 66786   | 2145.0     | 20       | 46890   | 5160.0     | 20       | 55990   | 3625.0     | 60       | 24.16    | 24.09      | -0.07    |         |            |               |                   |                 |       |
| CA_46A-66A-66A          | B46 SCC Only      | QPSK     | 20       | 132072  | 1720.0     | 1.50      | 20       | 66536   | 2120.0     | 20       | 67036   | 2170.0     | 20       | 46890   | 5160.0     | 60       | 23.72    | 23.56      | -0.16    |         |            |               |                   |                 |       |
| CA_46A-66C              | B46 SCC Only      | QPSK     | 20       | 132322  | 1745.0     | 1.50      | 20       | 66786   | 2145.0     | 20       | 66984   | 2164.8     | 20       | 46890   | 5160.0     | 60       | 23.71    | 23.62      | -0.09    |         |            |               |                   |                 |       |
| CA_5A-46A-66A           | B46 SCC Only      | 16QAM    | 10       | 20525   | 836.5      | 1.0       | 10       | 2525    | 881.5      | 20       | 66786   | 2145.0     | 20       | 46890   | 5160.0     | 50       | 23.70    | 23.54      | -0.16    |         |            |               |                   |                 |       |
|                         |                   | QPSK     | 20       | 132322  | 1745.0     | 1.50      | 20       | 66786   | 2145.0     | 10       | 2525    | 881.5      | 20       | 46890   | 5160.0     | 50       | 23.80    | 23.77      | -0.03    |         |            |               |                   |                 |       |
| CA_5B-46A               | B46 SCC Only      | 16QAM    | 10       | 20476   | 831.6      | 1.0       | 20       | 2476    | 876.6      | 10       | 2575    | 886.5      | 20       | 54340   | 5905.0     | 40       | 23.52    | 23.40      | -0.12    |         |            |               |                   |                 |       |
| CA_66A-66B              | (none)            | 16QAM    | 10       | 132022  | 1715.0     | 1.0       | 10       | 66486   | 2115.0     | 10       | 66585   | 2124.9     | 20       | 67236   | 2190.0     | 40       | 23.62    | 23.57      | -0.05    |         |            |               |                   |                 |       |
|                         |                   | QPSK     | 10       | 132022  | 1715.0     | 1.0       | 10       | 66486   | 2115.0     | 10       | 66585   | 2124.9     | 20       | 67236   | 2190.0     | 40       | 23.79    | 23.76      | -0.03    |         |            |               |                   |                 |       |
| CA_66A-66C              | (none)            | QPSK     | 20       | 132072  | 1720.0     | 1.50      | 20       | 66536   | 2120.0     | 20       | 67036   | 2170.2     | 20       | 67236   | 2190.0     | 60       | 23.76    | 23.70      | -0.06    |         |            |               |                   |                 |       |
| CA_66D                  | (none)            | QPSK     | 20       | 132376  | 1750.4     | 1.50      | 20       | 66840   | 2150.4     | 20       | 67038   | 2170.2     | 20       | 67236   | 2190.0     | 60       | 24.10    | 24.04      | -0.06    |         |            |               |                   |                 |       |
| CA_13A-46A-46A          | B46 SCC Only      | 16QAM    | 10       | 23230   | 782.0      | 1.25      | 10       | 5230    | 751.0      | 20       | 46890   | 5160.0     | 20       | 54340   | 5905.0     | 50       | 23.62    | 23.65      | 0.03     |         |            |               |                   |                 |       |

**4CC DL CA SISO Measured Results**

| E-UTRA CA configuration | Limitation        | CC1 (UL) |          |         |            |           | CC1 (DL) |         |            |          |         | CC2 (DL)   |          |         |            |          | CC3 (DL) |            |          |         |            | CC4 (DL) |  |  |  |  | Aggregated BW | CA Inactive (dBm) | CA Active (dBm) | Delta |
|-------------------------|-------------------|----------|----------|---------|------------|-----------|----------|---------|------------|----------|---------|------------|----------|---------|------------|----------|----------|------------|----------|---------|------------|----------|--|--|--|--|---------------|-------------------|-----------------|-------|
|                         |                   | Mode     | BW (MHz) | Channel | Freq (MHz) | RB Offset | BW (MHz) | Channel | Freq (MHz) | BW (MHz) | Channel | Freq (MHz) | BW (MHz) | Channel | Freq (MHz) | BW (MHz) | Channel  | Freq (MHz) | BW (MHz) | Channel | Freq (MHz) | BW (MHz) |  |  |  |  |               |                   |                 |       |
| CA_13A-46C-66A          | B46 SCC Only      | 16QAM    | 10       | 23230   | 782        | 1.25      | 10       | 5230    | 751        | 20       | 66786   | 2145       | 20       | 50692   | 5540.2     | 20       | 50890    | 5560       | 70       | 23.73   | 23.67      | -0.06    |  |  |  |  |               |                   |                 |       |
|                         |                   | QPSK     | 20       | 132322  | 1745       | 1.50      | 20       | 66786   | 2145       | 10       | 5230    | 751        | 20       | 50692   | 5540.2     | 20       | 50890    | 5560       | 70       | 24.40   | 24.23      | -0.17    |  |  |  |  |               |                   |                 |       |
| CA_13A-48A-66B          | B48 SCC Only      | 16QAM    | 10       | 23230   | 782        | 1.25      | 10       | 5230    | 751        | 10       | 66486   | 2115       | 10       | 66585   | 2124.9     | 20       | 55990    | 3625       | 50       | 23.52   | 23.54      | 0.02     |  |  |  |  |               |                   |                 |       |
|                         |                   | 16QAM    | 10       | 132022  | 1715       | 1.0       | 10       | 66486   | 2115       | 10       | 66585   | 2124.9     | 10       | 5230    | 751        | 20       | 55990    | 3625       | 50       | 22.71   | 22.73      | 0.02     |  |  |  |  |               |                   |                 |       |
| CA_13A-48A-66C          | B48 SCC Only      | 16QAM    | 10       | 23230   | 782        | 1.25      | 10       | 5230    | 751        | 20       | 66786   | 2145       | 20       | 66984   | 2164.8     | 10       | 55990    | 3625       | 70       | 23.86   | 23.81      | -0.05    |  |  |  |  |               |                   |                 |       |
|                         |                   | QPSK     | 20       | 132322  | 1745       | 1.50      | 20       | 66786   | 2145       | 20       | 66984   | 2164.8     | 10       | 5230    | 751        | 20       | 55990    | 3625       | 70       | 24.16   | 24.16      | 0.00     |  |  |  |  |               |                   |                 |       |
| CA_29A-30A-66A-66A      | B29 SCC Only      | 16QAM    | 10       | 27710   | 2310       | 1.0       | 10       | 9820    | 2355       | 10       | 9720    | 723        | 20       | 66536   | 2120       | 20       | 66786    | 2190       | 60       | 21.78   | 21.79      | 0.01     |  |  |  |  |               |                   |                 |       |
|                         |                   | QPSK     | 20       | 132072  | 1720       | 1.50      | 20       | 66536   | 2120       | 20       | 67036   | 2170       | 10       | 9820    | 2355       | 10       | 9720     | 723        | 60       | 23.96   | 23.92      | -0.04    |  |  |  |  |               |                   |                 |       |
| CA_46A-48C-66A          | B46, B48 SCC Only | QPSK     | 20       | 132322  | 1745       | 1.50      | 20       | 66786   | 2145       | 20       | 46890   | 5160       | 20       | 55891   | 3615.1     | 20       | 56089    | 3634.9     | 80       | 24.15   | 24.19      | 0.04     |  |  |  |  |               |                   |                 |       |
| CA_46C-48A-66A          | B46, B48 SCC Only | QPSK     | 20       | 132322  | 1745       | 1.50      | 20       | 66786   | 2145       | 20       | 50692   | 5540.2     | 20       | 50890   | 5560       | 20       | 55990    | 3625       | 80       | 24.26   | 24.28      | 0.02     |  |  |  |  |               |                   |                 |       |
| CA_46C-66A-66A          | B46 SCC Only      | QPSK     | 20       | 132072  | 1720       | 1.50      | 20       | 66536   | 2120       | 20       | 67036   | 2170       | 20       | 50692   | 5540.2     | 20       | 50890    | 5560       | 80       | 24.08   | 24.07      | -0.01    |  |  |  |  |               |                   |                 |       |
| CA_48A-48A-66A-66A      | B48 SCC Only      | QPSK     | 20       | 132072  | 1720       | 1.50      | 20       | 66536   | 2120       | 20       | 67036   | 2170       | 20       | 55340   | 3560       | 20       | 56640    | 3690       | 80       | 24.04   | 23.98      | -0.06    |  |  |  |  |               |                   |                 |       |
| CA_48A-48A-66B          | B48 SCC Only      | 16QAM    | 10       | 132022  | 1715       | 1.0       | 10       | 66486   | 2115       | 10       | 66585   | 2124.9     | 20       | 55340   | 3560       | 20       | 56640    | 3690       | 60       | 23.91   | 23.54      | -0.37    |  |  |  |  |               |                   |                 |       |
| CA_48A-48A-66C          | B48 SCC Only      | QPSK     | 20       | 132322  | 1745       | 1.50      | 20       | 66786   | 2145       | 20       | 66984   | 2164.8     | 20       | 55340   | 3560       | 20       | 56640    | 3690       | 80       | 24.26   | 24.16      | -0.10    |  |  |  |  |               |                   |                 |       |
| CA_5A-46C-66A           | B46 SCC Only      | 16QAM    | 10       | 20525   | 836.5      | 1.0       | 10       | 2525    | 881.5      | 20       | 66786   | 2145       | 20       | 50692   | 5540.2     | 20       | 50890    | 5560       | 70       | 23.25   | 23.30      | 0.05     |  |  |  |  |               |                   |                 |       |
|                         |                   | QPSK     | 20       | 132322  | 1745       | 1.50      | 20       | 66786   | 2145       | 10       | 2525    | 881.5      | 20       | 50692   | 5540.2     | 20       | 50890    | 5560       | 70       | 24.27   | 24.26      | -0.01    |  |  |  |  |               |                   |                 |       |
| CA_5A-5A-66A-66A        | (none)            | 16QAM    | 10       | 20525   | 836.5      | 1.0       | 10       | 2525    | 881.5      | 10       | 2600    | 889        | 20       | 66536   | 2120       | 20       | 67036    | 2170       | 60       | 23.48   | 23.26      | -0.22    |  |  |  |  |               |                   |                 |       |
|                         |                   | QPSK     | 20       | 132072  | 1720       | 1.50      | 20       | 66536   | 2120       | 20       | 67036   | 2170       | 10       | 2450    | 874        | 10       | 2600     | 889        | 60       | 24.14   | 24.04      | -0.10    |  |  |  |  |               |                   |                 |       |
| CA_5A-5A-66B            | (none)            | 16QAM    | 10       | 20525   | 836.5      | 1.0       | 10       | 2525    | 881.5      | 10       | 2600    | 889        | 10       | 66486   | 2115       | 10       | 66585    | 2124.9     | 40       | 23.44   | 23.22      | -0.22    |  |  |  |  |               |                   |                 |       |
|                         |                   | 16QAM    | 10       | 132022  | 1715       | 1.0       | 10       | 66486   | 2115       | 10       | 66585   | 2124.9     | 10       | 2450    | 874        | 10       | 2600     | 889        | 40       | 23.70   | 23.68      | -0.02    |  |  |  |  |               |                   |                 |       |
| CA_5A-5A-66C            | (none)            | 16QAM    | 10       | 20525   | 836.5      | 1.0       | 10       | 2525    | 881.5      | 10       | 2600    | 889        | 20       | 66786   | 2145       | 20       | 66984    | 2164.8     | 60       | 23.66   | 23.48      | -0.18    |  |  |  |  |               |                   |                 |       |
|                         |                   | QPSK     | 20       | 132322  | 1745       | 1.50      | 20       | 66786   | 2145       | 20       | 66984   | 2164.8     | 10       | 2450    | 874        | 10       | 2600     | 889        | 60       | 24.28   | 24.29      | 0.01     |  |  |  |  |               |                   |                 |       |
| CA_5B-46C               | B46 SCC Only      | 16QAM    | 10       | 20525   | 836.5      | 1.0       | 10       | 2525    | 881.5      | 10       | 2575    | 886.5      | 20       | 50692   | 5540.2     | 20       | 50890    | 5560       | 60       | 23.37   | 23.28      | -0.09    |  |  |  |  |               |                   |                 |       |
| CA_13A-48C-48A          | B48 SCC Only      | 16QAM    | 10       | 23230   | 782        | 1.25      | 10       | 5230    | 751        | 20       | 55340   | 3560       | 20       | 55538   | 3579.8     | 20       | 56640    | 3690       | 70       | 23.94   | 23.63      | -0.31    |  |  |  |  |               |                   |                 |       |
| CA_48C-48A-66A          | B48 SCC Only      | QPSK     | 20       | 132322  | 1745       | 1.50      | 20       | 66786   | 2145       | 20       | 55340   | 3560       | 20       | 55538   | 3579.8     | 20       | 56640    | 3690       | 80       | 24.30   | 24.19      | -0.11    |  |  |  |  |               |                   |                 |       |

## 5CC DL CA SISO Measured Results

| E-UTRA CA configuration | Limitation        | CC1 (UL) |          |         |            |           | CC1 (DL) |         |            |          |         | CC2 (DL)   |          |         |            |          | CC3 (DL) |            |          |         |            | CC4 (DL) |         |            |          |         | CC5 (DL)   |          |       |       |       | Aggregated BW | CA Inactive (dBm) | CA Active (dBm) | Delta |
|-------------------------|-------------------|----------|----------|---------|------------|-----------|----------|---------|------------|----------|---------|------------|----------|---------|------------|----------|----------|------------|----------|---------|------------|----------|---------|------------|----------|---------|------------|----------|-------|-------|-------|---------------|-------------------|-----------------|-------|
|                         |                   | Mode     | BW (MHz) | Channel | Freq (MHz) | RB Offset | BW (MHz) | Channel | Freq (MHz) | BW (MHz) | Channel | Freq (MHz) | BW (MHz) | Channel | Freq (MHz) | BW (MHz) | Channel  | Freq (MHz) | BW (MHz) | Channel | Freq (MHz) | BW (MHz) | Channel | Freq (MHz) | BW (MHz) | Channel | Freq (MHz) | BW (MHz) |       |       |       |               |                   |                 |       |
| CA_13A-46D-66A          | B46 SCC Only      | 16QAM    | 10       | 23230   | 782        | 1.25      | 10       | 5230    | 751        | 20       | 66786   | 2145       | 20       | 50467   | 5517.7     | 20       | 50665    | 5537.5     | 20       | 50665   | 5537.5     | 20       | 50665   | 5537.5     | 20       | 50665   | 5537.5     | 90       | 24.37 | 24.33 | -0.04 |               |                   |                 |       |
|                         |                   | QPSK     | 20       | 132322  | 1745       | 1.50      | 20       | 66786   | 2145       | 10       | 5230    | 751        | 20       | 50467   | 5517.7     | 20       | 50665    | 5537.5     | 20       | 50665   | 5537.5     | 20       | 50665   | 5537.5     | 20       | 50665   | 5537.5     | 90       | 24.29 | 24.24 | -0.05 |               |                   |                 |       |
| CA_13A-46E              | B46 SCC Only      | 16QAM    | 10       | 23230   | 782        | 1.0       | 10       | 5230    | 751        | 20       | 50467   | 5517.7     | 20       | 50665   | 5537.5     | 20       | 50665    | 5537.5     | 20       | 50665   | 5537.5     | 20       | 50665   | 5537.5     | 20       | 50665   | 5537.5     | 90       | 24.47 | 24.32 | -0.15 |               |                   |                 |       |
| CA_13A-48A-48C-66A      | B48 SCC Only      | 16QAM    | 10       | 23230   | 782        | 1.25      | 10       | 5230    | 751        | 20       | 66786   | 2145       | 20       | 55990   | 3625       | 20       | 56442    | 3670.2     | 20       | 5640    | 3690       | 90       | 23.78   | 23.83      | 0.05     |         |            |          |       |       |       |               |                   |                 |       |
| CA_13A-48A-48C-66A      | B48 SCC Only      | QPSK     | 20       | 132322  | 1745       | 1.50      | 20       | 66786   | 2145       | 10       | 5230    | 751        | 20       | 55990   | 3625       | 20       | 56442    | 3670.2     | 20       | 5640    | 3690       | 90       | 24.40   | 24.38      | -0.02    |         |            |          |       |       |       |               |                   |                 |       |
| CA_13A-48A-48D          | B48 SCC Only      | 16QAM    | 10       | 23230   | 782        | 1.25      | 10       | 5230    | 751        | 20       | 55990   | 3625       | 20       | 56244   | 3650.4     | 20       | 56442    | 3670.2     | 20       | 5640    | 3690       | 90       | 23.96   | 23.91      | -0.05    |         |            |          |       |       |       |               |                   |                 |       |
| CA_13A-48C-48D          | B48 SCC Only      | 16QAM    | 10       | 23230   | 782        | 1.25      | 10       | 5230    | 751        | 20       | 55340   | 3560       | 20       | 55538   | 3579.8     | 20       | 56442    | 3670.2     | 20       | 5640    | 3690       | 90       | 23.71   | 23.63      | -0.08    |         |            |          |       |       |       |               |                   |                 |       |
| CA_13A-48E              | B48 SCC Only      | 16QAM    | 10       | 23230   | 782        | 1.25      | 10       | 5230    | 751        | 20       | 56046   | 3630.6     | 20       | 56244   | 3650.4     | 20       | 56442    | 3670.2     | 20       | 5640    | 3690       | 90       | 23.82   | 23.81      | -0.01    |         |            |          |       |       |       |               |                   |                 |       |
| CA_46A-46D-66A          | B46 SCC Only      | QPSK     | 20       | 132322  | 1745       | 1.50      | 20       | 66786   | 2145       | 20       | 54142   | 5885.2     | 20       | 50467   | 5517.7     | 20       | 50665    | 5537.5     | 20       | 50665   | 5537.5     | 100      | 24.23   | 24.24      | 0.01     |         |            |          |       |       |       |               |                   |                 |       |
| CA_46A-48D-66A          | B46, B48 SCC Only | QPSK     | 20       | 132322  | 1745       | 1.50      | 20       | 66786   | 2145       | 20       | 54142   | 5885.2     | 20       | 56244   | 3650.4     | 20       | 56442    | 3670.2     | 20       | 5640    | 3690       | 100      | 24.39   | 24.31      | -0.08    |         |            |          |       |       |       |               |                   |                 |       |
| CA_46C-48C-66A          | B46, B48 SCC Only | QPSK     | 20       | 132322  | 1745       | 1.50      | 20       | 66786   | 2145       | 20       | 50692   | 5540.2     | 20       | 50890   | 5590       | 20       | 56442    | 3670.2     | 20       | 5640    | 3690       | 100      | 24.31   | 24.29      | -0.02    |         |            |          |       |       |       |               |                   |                 |       |
| CA_46D-48A-66A          | B46, B48 SCC Only | QPSK     | 20       | 132322  | 1745       | 1.50      | 20       | 66786   | 2145       | 20       | 55990   | 3625       | 20       | 50467   | 5517.7     | 20       | 50665    | 5537.5     | 20       | 50665   | 5537.5     | 100      | 24.30   | 24.29      | -0.01    |         |            |          |       |       |       |               |                   |                 |       |
| CA_46D-66A-66A          | B46 SCC Only      | QPSK     | 20       | 132322  | 1745       | 1.50      | 20       | 66786   | 2145       | 20       | 67086   | 2175       | 20       | 50467   | 5517.7     | 20       | 50665    | 5537.5     | 20       | 50665   | 5537.5     | 100      | 24.24   | 24.09      | -0.15    |         |            |          |       |       |       |               |                   |                 |       |
| CA_48A-48C-66B          | B48 SCC Only      | 16QAM    | 10       | 132022  | 1715       | 1.0       | 10       | 66486   | 2115       | 10       | 66585   | 2124.9     | 20       | 55990   | 3625       | 20       | 56442    | 3670.2     | 20       | 5640    | 3690       | 80       | 23.45   | 23.30      | -0.15    |         |            |          |       |       |       |               |                   |                 |       |
| CA_48A-48C-66C          | B48 SCC Only      | QPSK     | 20       | 132322  | 1745       | 1.50      | 20       | 66786   | 2145       | 20       | 66984   | 2164.8     | 20       | 55990   | 3625       | 20       | 56442    | 3670.2     | 20       | 5640    | 3690       | 100      | 24.37   | 24.24      | -0.13    |         |            |          |       |       |       |               |                   |                 |       |
| CA_48A-48D-66A          | B48 SCC Only      | QPSK     | 20       | 132322  | 1745       | 1.50      | 20       | 66786   | 2145       | 20       | 55990   | 3625       | 20       | 56244   | 3650.4     | 20       | 56442    | 3670.2     | 20       | 5640    | 3690       | 100      | 24.38   | 24.41      | 0.03     |         |            |          |       |       |       |               |                   |                 |       |
| CA_48A-48E              | (none)            | 16QAM    | 20       | 55340   | 3560       | 1.50      | 20       | 55340   | 3560       | 20       | 55792   | 3605.2     | 20       | 55990   | 3625       | 20       | 56188    | 3644.8     | 20       | 56396   | 3664.6     | 100      | 21.17   | 21.14      | -0.03    |         |            |          |       |       |       |               |                   |                 |       |
| CA_48C-48C-66A          | B48 SCC Only      | QPSK     | 20       | 132322  | 1745       | 1.50      | 20       | 66786   | 2145       | 20       | 55340   | 3560       | 20       | 55538   | 3579.8     | 20       | 56442    | 3670.2     | 20       | 5640    | 3690       | 100      | 24.33   | 24.31      | -0.02    |         |            |          |       |       |       |               |                   |                 |       |
| CA_48C-48D              | (none)            | 16QAM    | 20       | 55340   | 3560       | 1.50      | 20       | 55340   | 3560       | 20       | 55538   | 3579.8     | 20       | 56244   | 3650.4     | 20       | 56442    | 3670.2     | 20       | 5640    | 3690       | 100      | 21.20   | 21.24      | 0.04     |         |            |          |       |       |       |               |                   |                 |       |
| CA_5A-46D-66A           | B46 SCC Only      | 16QAM    | 10       | 20525   | 836.5      | 1.0       | 10       | 2525    | 881.5      | 20       | 66786   | 2145       | 20       | 50467   | 5517.7     | 20       | 50665    | 5537.5     | 20       | 50665   | 5537.5     | 90       | 23.58   | 23.50      | -0.08    |         |            |          |       |       |       |               |                   |                 |       |
| CA_5A-46E               | B46 SCC Only      | QPSK     | 20       | 132322  | 1745       | 1.50      | 20       | 66786   | 2145       | 20       | 2525    | 881.5      | 20       | 50467   | 5517.7     | 20       | 50665    | 5537.5     | 20       | 50665   | 5537.5     | 90       | 24.38   | 24.34      | -0.04    |         |            |          |       |       |       |               |                   |                 |       |
| CA_5A-48E               | B46 SCC Only      | 16QAM    | 10       | 20525   | 836.5      | 1.0       | 10       | 2525    | 881.5      | 20       | 53744   | 5845.4     | 20       | 53942   | 5865.2     | 20       | 54140    | 5885       | 20       | 54338   | 5904.8     | 90       | 23.56   | 23.51      | -0.05    |         |            |          |       |       |       |               |                   |                 |       |
| CA_5B-30A-66A-66A       | (none)            | 16QAM    | 10       | 20501   | 834.1      | 1.0       | 10       | 2501    | 879.1      | 10       | 2600    | 889        | 20       | 66536   | 2120       | 20       | 67036    | 2170       | 20       | 67036   | 2170       | 70       | 23.43   | 23.23      | -0.20    |         |            |          |       |       |       |               |                   |                 |       |
|                         |                   | QPSK     | 20       | 132322  | 1745       | 1.50      | 20       | 66786   | 2145       | 20       | 67086   | 2175       | 10       | 2501    | 879.1      | 10       | 2600     | 889        | 10       | 2600    | 889        | 70       | 23.43   | 23.26      | -0.12    |         |            |          |       |       |       |               |                   |                 |       |
| CA_5B-46D               | B46 SCC Only      | 16QAM    | 10       | 20501   | 834.1      | 1.0       | 10       | 2501    | 879.1      | 10       | 2600    | 889        | 20       | 50467   | 5517.7     | 20       | 50665    | 5537.5     | 20       | 50665   | 5537.5     | 80       | 23.08   | 23.02      | -0.06    |         |            |          |       |       |       |               |                   |                 |       |
| CA_5A-48C-66A-66A       | B48 SCC Only      | 16QAM    | 10       | 20525   | 836.5      | 1.0       | 10       | 2525    | 881.5      | 20       | 66536   | 2120       | 20       | 67036   | 2170       | 20       | 56442    | 3670.2     | 20       | 5640    | 3690       | 90       | 23.67   | 23.57      | -0.10    |         |            |          |       |       |       |               |                   |                 |       |
|                         |                   | QPSK     | 20       | 132322  | 1745       | 1.50      | 20       | 66786   | 2145       | 20       | 67086   | 2175       | 10       | 2525    | 881.5      | 20       | 56442    | 3670.2     | 20       | 5640    | 3690       | 90       | 24.42   | 24.31      | -0.11    |         |            |          |       |       |       |               |                   |                 |       |
| CA_13A-48C-66A-66A      | B48 SCC Only      | 16QAM    | 10       | 23230   | 782        | 1.25      | 10       | 5230    | 751        | 20       | 66536   | 2120       | 20       | 67036   | 2170       | 20       | 56442    | 3670.2     | 20       | 5640    | 3690       | 90       | 23.68   | 23.63      | -0.05    |         |            |          |       |       |       |               |                   |                 |       |
|                         |                   | QPSK     | 20       | 132322  | 1745       | 1.50      | 20       | 66786   | 2145       | 20       | 67086   | 2175       | 10       | 5230    | 751        | 20       | 56442    | 3670.2     | 20       | 5640    | 3690       | 90       | 24.31   | 24.17      | -0.14    |         |            |          |       |       |       |               |                   |                 |       |

## 6CC DL CA SISO Measured Results

| E-UTRA CA configuration | Limitation   | CC1 (UL) |          |         |            |           | CC1 (DL) |         |            |          |         | CC2 (DL)   |          |         |            |          | CC3 (DL) |            |          |         |            | CC4 (DL) |         |            |          |         | CC5 (DL)   |          |         |            |       | CC6 (DL) |  |  |  |  | Aggregated BW | CA Inactive (dBm) | CA Active (dBm) | Delta |
|-------------------------|--------------|----------|----------|---------|------------|-----------|----------|---------|------------|----------|---------|------------|----------|---------|------------|----------|----------|------------|----------|---------|------------|----------|---------|------------|----------|---------|------------|----------|---------|------------|-------|----------|--|--|--|--|---------------|-------------------|-----------------|-------|
|                         |              | Mode     | BW (MHz) | Channel | Freq (MHz) | RB Offset | BW (MHz) | Channel | Freq (MHz) | BW (MHz) | Channel | Freq (MHz) | BW (MHz) | Channel | Freq (MHz) | BW (MHz) | Channel  | Freq (MHz) | BW (MHz) | Channel | Freq (MHz) | BW (MHz) | Channel | Freq (MHz) | BW (MHz) | Channel | Freq (MHz) | BW (MHz) | Channel | Freq (MHz) |       |          |  |  |  |  |               |                   |                 |       |
| CA_13A-48D-66A-66A      | B48 SCC Only | 16QAM    | 10       | 23230   | 782        | 1.25      | 10       | 5230    | 751        | 20       | 66536   | 2120       | 20       | 67036   | 2170       | 20       | 56244    | 3650.4     | 20       | 56442   | 3670.2     | 20       | 56442   | 3670.2     | 20       | 56640   | 3690       | 110      | 23.76   | 23.84      | 0.08  |          |  |  |  |  |               |                   |                 |       |
|                         |              | QPSK     | 20       | 132322  | 1745       | 1.50      | 20       | 66786   | 2145       | 20       | 67086   | 2175       | 10       | 5230    | 751        | 20       | 56244    | 3650.4     | 20       | 56442   | 3670.2     | 20       | 56442   | 3670.2     | 20       | 56640   | 3690       | 110      | 24.32   | 24.30      | -0.02 |          |  |  |  |  |               |                   |                 |       |
| CA_5A-48D-66A-66A       | B48 SCC Only | 16QAM    | 10       | 20525   | 836.5      | 1.0       | 10       | 2525    | 881.5      | 20       | 66536   | 2120       | 20       | 67036   | 2170       | 20       | 56244    | 3650.4     | 20       | 56442   | 3670.2     | 20       | 56442   | 3670.2     | 20       | 56640   | 3690       | 110      | 23.53   | 23.35      | -0.18 |          |  |  |  |  |               |                   |                 |       |
|                         |              | QPSK     | 20       | 132322  | 1745       | 1.50      | 20       | 66786   | 2145       | 20       | 67086   | 2175       | 10       | 2525    | 881.5      | 20       | 56244    | 3650.4     | 20       | 56442   | 3670.2     | 20       | 56442   | 3670.2     | 20       | 56640   | 3690       | 110      | 24.26   | 24.17      | -0.09 |          |  |  |  |  |               |                   |                 |       |

## 4CC DL CA MIMO Measured Results

| E-UTRA CA configuration    | Restrictions      | CC1 (UL)                 |                   |         |            |           | CC1 (DL) |         |            |          |         | CC2 (DL)   |          |         |            |          | CC3 (DL) |            |          |         |            | CC4 (DL) |       |       |       |  | Aggregated BW | CA Inactive (dBm) | CA Active (dBm) | Delta |
|----------------------------|-------------------|--------------------------|-------------------|---------|------------|-----------|----------|---------|------------|----------|---------|------------|----------|---------|------------|----------|----------|------------|----------|---------|------------|----------|-------|-------|-------|--|---------------|-------------------|-----------------|-------|
|                            |                   | Mode                     | BW (MHz)          | Channel | Freq (MHz) | RB Offset | BW (MHz) | Channel | Freq (MHz) | BW (MHz) | Channel | Freq (MHz) | BW (MHz) | Channel | Freq (MHz) | BW (MHz) | Channel  | Freq (MHz) | BW (MHz) | Channel | Freq (MHz) |          |       |       |       |  |               |                   |                 |       |
| CA_13A-46C-[66A]           | B46 SCC Only      | 16QAM                    | 10                | 23230   | 782        | 1,25      | 10       | 5230    | 751        | 20       | 66786   | 2145       | 20       | 66786   | 2145       | 20       | 50692    | 5540.2     | 20       | 50890   | 5560       | 70       | 23.75 | 23.70 | -0.05 |  |               |                   |                 |       |
|                            |                   | QPSK                     | 20                | 132322  | 1745       | 1,50      | 20       | 66786   | 2145       | 10       | 5230    | 751        | 20       | 50692   | 5540.2     | 20       | 50890    | 5560       | 70       | 24.19   | 24.18      | -0.01    |       |       |       |  |               |                   |                 |       |
| CA_13A-[48A]-66B           | B48 SCC Only      | 16QAM                    | 10                | 23230   | 782        | 1,25      | 10       | 5230    | 751        | 10       | 66837   | 2150.1     | 10       | 66936   | 2160       | 10       | 66936    | 2160       | 20       | 55990   | 3625       | 50       | 23.87 | 23.79 | -0.08 |  |               |                   |                 |       |
|                            |                   | 16QAM                    | 10                | 132373  | 1750.1     | 1,0       | 10       | 66837   | 2150.1     | 10       | 66936   | 2160       | 10       | 5230    | 751        | 20       | 55990    | 3625       | 50       | 23.45   | 23.51      | 0.06     |       |       |       |  |               |                   |                 |       |
| CA_13A-48A-[66B]           | B48 SCC Only      | 16QAM                    | 10                | 23230   | 782        | 1,25      | 10       | 5230    | 751        | 10       | 66837   | 2150.1     | 10       | 66936   | 2160       | 10       | 66936    | 2160       | 20       | 55990   | 3625       | 50       | 23.78 | 23.75 | -0.03 |  |               |                   |                 |       |
|                            |                   | 16QAM                    | 10                | 132373  | 1750.1     | 1,0       | 10       | 66837   | 2150.1     | 10       | 66936   | 2160       | 10       | 5230    | 751        | 20       | 55990    | 3625       | 50       | 23.51   | 23.48      | -0.03    |       |       |       |  |               |                   |                 |       |
| CA_13A-[48A]-[66B]         | B48 SCC Only      | 16QAM                    | 10                | 23230   | 782        | 1,25      | 10       | 5230    | 751        | 10       | 66837   | 2150.1     | 10       | 66936   | 2160       | 10       | 66936    | 2160       | 20       | 55990   | 3625       | 50       | 23.73 | 23.71 | -0.02 |  |               |                   |                 |       |
|                            |                   | 16QAM                    | 10                | 132373  | 1750.1     | 1,0       | 10       | 66837   | 2150.1     | 10       | 66936   | 2160       | 10       | 5230    | 751        | 20       | 55990    | 3625       | 50       | 23.55   | 23.56      | 0.01     |       |       |       |  |               |                   |                 |       |
| CA_13A-[48A]-66C           | B48 SCC Only      | 16QAM                    | 10                | 23230   | 782        | 1,25      | 10       | 5230    | 751        | 20       | 66787   | 2145.1     | 20       | 66985   | 2164.9     | 20       | 66985    | 2164.9     | 20       | 55990   | 3625       | 70       | 23.74 | 23.73 | -0.01 |  |               |                   |                 |       |
|                            |                   | QPSK                     | 20                | 132323  | 1745.1     | 1,50      | 20       | 66787   | 2145.1     | 20       | 66985   | 2164.9     | 10       | 5230    | 751        | 20       | 55990    | 3625       | 70       | 24.24   | 24.25      | 0.01     |       |       |       |  |               |                   |                 |       |
| CA_13A-48A-[66C]           | B48 SCC Only      | 16QAM                    | 10                | 23230   | 782        | 1,25      | 10       | 5230    | 751        | 20       | 66787   | 2145.1     | 20       | 66985   | 2164.9     | 20       | 66985    | 2164.9     | 20       | 55990   | 3625       | 70       | 23.72 | 23.71 | -0.01 |  |               |                   |                 |       |
|                            |                   | QPSK                     | 20                | 132323  | 1745.1     | 1,50      | 20       | 66787   | 2145.1     | 20       | 66985   | 2164.9     | 10       | 5230    | 751        | 20       | 55990    | 3625       | 70       | 24.17   | 24.19      | 0.02     |       |       |       |  |               |                   |                 |       |
| CA_13A-[48A]-[66C]         | B48 SCC Only      | 16QAM                    | 10                | 23230   | 782        | 1,25      | 10       | 5230    | 751        | 20       | 66787   | 2145.1     | 20       | 66985   | 2164.9     | 20       | 66985    | 2164.9     | 20       | 55990   | 3625       | 70       | 23.75 | 23.78 | 0.03  |  |               |                   |                 |       |
|                            |                   | QPSK                     | 20                | 132323  | 1745.1     | 1,50      | 20       | 66787   | 2145.1     | 20       | 66985   | 2164.9     | 10       | 5230    | 751        | 20       | 55990    | 3625       | 70       | 24.21   | 24.23      | 0.02     |       |       |       |  |               |                   |                 |       |
| CA_29A-30A-[66A]-66A       | B29 SCC Only      | 16QAM                    | 10                | 27710   | 2310       | 1,0       | 10       | 9820    | 2355       | 20       | 66536   | 2120       | 20       | 66786   | 2145       | 10       | 9720     | 723        | 60       | 21.67   | 21.68      | 0.01     |       |       |       |  |               |                   |                 |       |
|                            |                   | QPSK                     | 20                | 132072  | 1720       | 1,50      | 20       | 66536   | 2120       | 20       | 66786   | 2145       | 10       | 9820    | 2355       | 10       | 9720     | 723        | 60       | 24.02   | 24.01      | -0.01    |       |       |       |  |               |                   |                 |       |
| CA_29A-30A-[66A]-[66A]     | B29 SCC Only      | 16QAM                    | 10                | 27710   | 2310       | 1,0       | 10       | 9820    | 2355       | 20       | 66536   | 2120       | 20       | 66786   | 2145       | 10       | 9720     | 723        | 60       | 21.63   | 21.68      | 0.05     |       |       |       |  |               |                   |                 |       |
|                            |                   | QPSK                     | 20                | 132072  | 1720       | 1,50      | 20       | 66536   | 2120       | 20       | 66786   | 2145       | 10       | 9820    | 2355       | 10       | 9720     | 723        | 60       | 24.00   | 24.01      | 0.01     |       |       |       |  |               |                   |                 |       |
| CA_46C-[48A]-66A           | B46, B48 SCC Only | QPSK                     | 20                | 132322  | 1745       | 1,50      | 20       | 66786   | 2145       | 20       | 55990   | 3625       | 20       | 50692   | 5540.2     | 20       | 50890    | 5560       | 80       | 24.25   | 24.24      | -0.01    |       |       |       |  |               |                   |                 |       |
|                            |                   | CA_46C-48A-[66A]         | B46, B48 SCC Only | QPSK    | 20         | 132322    | 1745     | 1,50    | 20         | 66786    | 2145    | 20         | 55990    | 3625    | 20         | 50692    | 5540.2   | 20         | 50890    | 5560    | 80         | 24.20    | 24.24 | 0.04  |       |  |               |                   |                 |       |
| CA_46C-[48A]-[66A]         | B46, B48 SCC Only | QPSK                     | 20                | 132322  | 1745       | 1,50      | 20       | 66786   | 2145       | 20       | 55990   | 3625       | 20       | 50692   | 5540.2     | 20       | 50890    | 5560       | 80       | 24.19   | 24.22      | 0.03     |       |       |       |  |               |                   |                 |       |
|                            |                   | CA_46C-[66A]-66A         | B46 SCC Only      | QPSK    | 20         | 132072    | 1720     | 1,50    | 20         | 66536    | 2120    | 20         | 66786    | 2145    | 20         | 50692    | 5540.2   | 20         | 50890    | 5560    | 80         | 24.05    | 24.01 | -0.04 |       |  |               |                   |                 |       |
| CA_46C-[66A]-[66A]         | B46 SCC Only      | QPSK                     | 20                | 132072  | 1720       | 1,50      | 20       | 66536   | 2120       | 20       | 66786   | 2145       | 20       | 50692   | 5540.2     | 20       | 50890    | 5560       | 80       | 24.00   | 24.03      | 0.03     |       |       |       |  |               |                   |                 |       |
|                            |                   | CA_[48A]-48A-66A-66A     | B48 SCC Only      | QPSK    | 20         | 132072    | 1720     | 1,50    | 20         | 66536    | 2120    | 20         | 66786    | 2145    | 20         | 55340    | 3560     | 20         | 56640    | 3690    | 80         | 24.04    | 24.01 | -0.03 |       |  |               |                   |                 |       |
| CA_48A-48A-[66A]-66A       | B48 SCC Only      | QPSK                     | 20                | 132072  | 1720       | 1,50      | 20       | 66536   | 2120       | 20       | 66786   | 2145       | 20       | 55340   | 3560       | 20       | 56640    | 3690       | 80       | 24.01   | 24.03      | 0.02     |       |       |       |  |               |                   |                 |       |
|                            |                   | CA_[48A]-[48A]-66A-66A   | B48 SCC Only      | QPSK    | 20         | 132072    | 1720     | 1,50    | 20         | 66536    | 2120    | 20         | 66786    | 2145    | 20         | 55340    | 3560     | 20         | 56640    | 3690    | 80         | 24.03    | 23.98 | -0.05 |       |  |               |                   |                 |       |
| CA_[48A]-48A-[66A]-66A     | B48 SCC Only      | QPSK                     | 20                | 132072  | 1720       | 1,50      | 20       | 66536   | 2120       | 20       | 66786   | 2145       | 20       | 55340   | 3560       | 20       | 56640    | 3690       | 80       | 24.00   | 24.05      | 0.05     |       |       |       |  |               |                   |                 |       |
|                            |                   | CA_48A-48A-[66A]-[66A]   | B48 SCC Only      | QPSK    | 20         | 132072    | 1720     | 1,50    | 20         | 66536    | 2120    | 20         | 66786    | 2145    | 20         | 55340    | 3560     | 20         | 56640    | 3690    | 80         | 24.02    | 24.00 | -0.02 |       |  |               |                   |                 |       |
| CA_[48A]-[48A]-[66A]-66A   | B48 SCC Only      | QPSK                     | 20                | 132072  | 1720       | 1,50      | 20       | 66536   | 2120       | 20       | 66786   | 2145       | 20       | 55340   | 3560       | 20       | 56640    | 3690       | 80       | 24.03   | 23.99      | -0.04    |       |       |       |  |               |                   |                 |       |
|                            |                   | CA_[48A]-48A-[66A]-[66A] | B48 SCC Only      | QPSK    | 20         | 132072    | 1720     | 1,50    | 20         | 66536    | 2120    | 20         | 66786    | 2145    | 20         | 55340    | 3560     | 20         | 56640    | 3690    | 80         | 24.03    | 24.01 | -0.02 |       |  |               |                   |                 |       |
| CA_[48A]-[48A]-[66A]-[66A] | B48 SCC Only      | QPSK                     | 20                | 132072  | 1720       | 1,50      | 20       | 66536   | 2120       | 20       | 66786   | 2145       | 20       | 55340   | 3560       | 20       | 56640    | 3690       | 80       | 23.99   | 24.02      | 0.03     |       |       |       |  |               |                   |                 |       |
|                            |                   | CA_[48A]-48A-66B         | B48 SCC Only      | 16QAM   | 10         | 132373    | 1750.1   | 1,0     | 10         | 66837    | 2150.1  | 10         | 66936    | 2160    | 20         | 55340    | 3560     | 20         | 56640    | 3690    | 60         | 23.51    | 23.54 | 0.03  |       |  |               |                   |                 |       |
| CA_48A-48A-[66B]           | B48 SCC Only      | 16QAM                    | 10                | 132373  | 1750.1     | 1,0       | 10       | 66837   | 2150.1     | 10       | 66936   | 2160       | 20       | 55340   | 3560       | 20       | 56640    | 3690       | 60       | 23.60   | 23.55      | -0.05    |       |       |       |  |               |                   |                 |       |
|                            |                   | CA_[48A]-[48A]-66B       | B48 SCC Only      | 16QAM   | 10         | 132373    | 1750.1   | 1,0     | 10         | 66837    | 2150.1  | 10         | 66936    | 2160    | 20         | 55340    | 3560     | 20         | 56640    | 3690    | 60         | 23.52    | 23.56 | 0.04  |       |  |               |                   |                 |       |
| CA_[48A]-48A-[66B]         | B48 SCC Only      | 16QAM                    | 10                | 132373  | 1750.1     | 1,0       | 10       | 66837   | 2150.1     | 10       | 66936   | 2160       | 20       | 55340   | 3560       | 20       | 56640    | 3690       | 60       | 23.49   | 23.52      | 0.03     |       |       |       |  |               |                   |                 |       |
|                            |                   | CA_[48A]-[48A]-[66B]     | B48 SCC Only      | 16QAM   | 10         | 132373    | 1750.1   | 1,0     | 10         | 66837    | 2150.1  | 10         | 66936    | 2160    | 20         | 55340    | 3560     | 20         | 56640    | 3690    | 60         | 23.53    | 23.56 | 0.03  |       |  |               |                   |                 |       |
| CA_[48A]-48A-66C           | B48 SCC Only      | QPSK                     | 20                | 132323  | 1745.1     | 1,50      | 20       | 66787   | 2145.1     | 20       | 66985   | 2164.9     | 20       | 55340   | 3560       | 20       | 56640    | 3690       | 80       | 24.22   | 24.18      | -0.04    |       |       |       |  |               |                   |                 |       |
|                            |                   | CA_48A-48A-[66C]         | B48 SCC Only      | QPSK    | 20         | 132323    | 1745.1   | 1,50    | 20         | 66787    | 2145.1  | 20         | 66985    | 2164.9  | 20         | 55340    | 3560     | 20         | 56640    | 3690    | 80         | 24.26    | 24.21 | -0.05 |       |  |               |                   |                 |       |
| CA_[48A]-[48A]-66C         | B48 SCC Only      | QPSK                     | 20                | 132323  | 1745.1     | 1,50      | 20       | 66787   | 2145.1     | 20       | 66985   | 2164.9     | 20       | 55340   | 3560       | 20       | 56640    | 3690       | 80       | 24.24   | 24.20      | -0.04    |       |       |       |  |               |                   |                 |       |
|                            |                   | CA_[48A]-48A-[66C]       | B48 SCC Only      | QPSK    | 20         | 132323    | 1745.1   | 1,50    | 20         | 66787    | 2145.1  | 20         | 66985    | 2164.9  | 20         | 55340    | 3560     | 20         | 56640    | 3690    | 80         | 24.28    | 24.24 | -0.04 |       |  |               |                   |                 |       |
| CA_[48A]-[48A]-[66C]       | B48 SCC Only      | QPSK                     | 20                | 132323  | 1745.1     | 1,50      | 20       | 66787   | 2145.1     | 20       | 66985   | 2164.9     | 20       | 55340   | 3560       | 20       | 56640    | 3690       | 80       | 24.30   | 24.26      | -0.04    |       |       |       |  |               |                   |                 |       |
|                            |                   | CA_[48C]-[66A]-[66A]     | B48 SCC Only      | QPSK    | 20         | 132072    | 1720     | 1,50    | 20         | 66536    | 2120    | 20         | 66786    | 2145    | 20         | 55340    | 3560     | 20         | 56640    | 3690    | 80         | 24.12    | 24.15 | 0.03  |       |  |               |                   |                 |       |
| CA_[5A]-46C-66A            | B46 SCC Only      | 16QAM                    | 10                | 20525   | 836.5      | 1,0       | 10       | 2525    | 881.5      | 10       | 2525    | 881.5      | 20       | 50692   | 5540.2     | 20       | 50890    | 5560       | 60       | 23.19   | 23.20      | 0.01     |       |       |       |  |               |                   |                 |       |
|                            |                   | QPSK                     | 20                | 132322  | 1745       | 1,50      | 20       | 66786   | 2145       | 10       | 2525    | 881.5      | 20       | 50692   | 5540.2     | 20       | 50890    | 5560       | 70       | 24.20   | 24.22      | 0.02     |       |       |       |  |               |                   |                 |       |
| CA_5A-46C-[66A]            | B46 SCC Only      | 16QAM                    | 10                | 20525   | 836.5      | 1,0       | 10       | 2525    | 881.5      | 10       | 2525    | 881.5      | 20       | 50692   | 5540.2     | 20       | 50890    | 5560       | 60       | 23.23   | 23.22      | -0.01    |       |       |       |  |               |                   |                 |       |
|                            |                   | QPSK                     | 20                | 132322  | 1745       | 1,50      | 20       | 66786   | 2145       | 10       | 2525    | 881.5      | 20       | 50692   | 5540.2     | 20       | 50890    | 5560       | 70       | 24.26   | 24.23      | -0.03    |       |       |       |  |               |                   |                 |       |
| CA_[5A]-46C-[66A]          | B46 SCC Only      | 16QAM                    | 10                | 20525   | 836.5      | 1,0       | 10       | 2525    | 881.5      | 20       | 66786   | 2145       | 20       | 50692   | 5540.2     | 20       | 50890    | 5560       | 70       | 23.18   | 23.17      | -0.01    |       |       |       |  |               |                   |                 |       |
|                            |                   | QPSK                     | 20                | 132322  | 1745       | 1,50      | 20       | 66786   | 2145       | 10       | 2525    | 881.5      | 20       | 50692   | 5540.2     | 20       | 50890    | 5560       | 70       | 24.22   | 24.20      | -0.02    |       |       |       |  |               |                   |                 |       |
| CA_[5A]-5A-66A-66A         | (none)            | 16QAM                    | 10                | 20450   | 829        | 1,0       | 10       | 2450    | 874        | 10       | 2600    | 889        | 20       | 66536   | 2120       | 20       | 66786    | 2145       | 60       | 23.21   | 23.16      | -0.05    |       |       |       |  |               |                   |                 |       |
|                            |                   | QPSK                     | 20                | 132072  | 1720       | 1,50      | 20       | 66536   | 2          |          |         |            |          |         |            |          |          |            |          |         |            |          |       |       |       |  |               |                   |                 |       |

**4CC DL CA MIMO Measured Results (continued)**

| E-UTRA CA configuration | Restrictions | CC1 (UL) |          |         |            |           | CC1 (DL) |         |            | CC2 (DL) |         |            | CC3 (DL) |         |            | CC4 (DL) |         |            | Aggregated BW | CA Inactive (dBm) | CA Active (dBm) | Delta |       |       |      |
|-------------------------|--------------|----------|----------|---------|------------|-----------|----------|---------|------------|----------|---------|------------|----------|---------|------------|----------|---------|------------|---------------|-------------------|-----------------|-------|-------|-------|------|
|                         |              | Mode     | BW (MHz) | Channel | Freq (MHz) | RB Offset | BW (MHz) | Channel | Freq (MHz) | BW (MHz) | Channel | Freq (MHz) | BW (MHz) | Channel | Freq (MHz) | BW (MHz) | Channel | Freq (MHz) |               |                   |                 |       |       |       |      |
| CA_5A-5A-[66B]          | (none)       | 16QAM    | 10       | 20450   | 829        | 1.0       | 10       | 2450    | 874        | 10       | 2600    | 889        | 10       | 66837   | 2150.1     | 10       | 66936   | 2160       | 40            | 23.22             | 23.19           | -0.03 |       |       |      |
|                         |              | 16QAM    | 10       | 132373  | 1750.1     | 1.0       | 10       | 66837   | 2150.1     | 10       | 66936   | 2160       | 10       | 2450    | 874        | 10       | 2600    | 889        | 40            | 23.57             | 23.56           | -0.01 |       |       |      |
| CA_5A]-5A]-66B          | (none)       | 16QAM    | 10       | 20450   | 829        | 1.0       | 10       | 2450    | 874        | 10       | 2600    | 889        | 10       | 66837   | 2150.1     | 10       | 66936   | 2160       | 40            | 23.19             | 23.23           | 0.04  |       |       |      |
|                         |              | 16QAM    | 10       | 132373  | 1750.1     | 1.0       | 10       | 66837   | 2150.1     | 10       | 66936   | 2160       | 10       | 2450    | 874        | 10       | 2600    | 889        | 40            | 23.51             | 23.50           | -0.01 |       |       |      |
| CA_5A]-5A]-[66B]        | (none)       | 16QAM    | 10       | 20450   | 829        | 1.0       | 10       | 2450    | 874        | 10       | 2600    | 889        | 10       | 66837   | 2150.1     | 10       | 66936   | 2160       | 40            | 23.24             | 23.21           | -0.03 |       |       |      |
|                         |              | 16QAM    | 10       | 132373  | 1750.1     | 1.0       | 10       | 66837   | 2150.1     | 10       | 66936   | 2160       | 10       | 2450    | 874        | 10       | 2600    | 889        | 40            | 23.50             | 23.52           | 0.02  |       |       |      |
| CA_5A]-5A]-[66B]        | (none)       | 16QAM    | 10       | 20450   | 829        | 1.0       | 10       | 2450    | 874        | 10       | 2600    | 889        | 10       | 66837   | 2150.1     | 10       | 66936   | 2160       | 40            | 23.21             | 23.25           | 0.04  |       |       |      |
|                         |              | 16QAM    | 10       | 132373  | 1750.1     | 1.0       | 10       | 66837   | 2150.1     | 10       | 66936   | 2160       | 10       | 2450    | 874        | 10       | 2600    | 889        | 40            | 23.56             | 23.51           | -0.05 |       |       |      |
| CA_5A]-5A]-66C          | (none)       | 16QAM    | 10       | 20450   | 829        | 1.0       | 10       | 2450    | 874        | 10       | 2600    | 889        | 20       | 66787   | 2145.1     | 20       | 66985   | 2164.9     | 60            | 23.22             | 23.18           | -0.04 |       |       |      |
|                         |              | QPSK     | 20       | 132323  | 1745.1     | 1.50      | 20       | 66787   | 2145.1     | 20       | 66985   | 2164.9     | 10       | 2450    | 874        | 10       | 2600    | 889        | 60            | 24.20             | 24.23           | 0.03  |       |       |      |
| CA_5A-5A-[66C]          | (none)       | 16QAM    | 10       | 20450   | 829        | 1.0       | 10       | 2450    | 874        | 10       | 2600    | 889        | 20       | 66787   | 2145.1     | 20       | 66985   | 2164.9     | 60            | 23.22             | 23.27           | 0.05  |       |       |      |
|                         |              | QPSK     | 20       | 132323  | 1745.1     | 1.50      | 20       | 66787   | 2145.1     | 20       | 66985   | 2164.9     | 10       | 2450    | 874        | 10       | 2600    | 889        | 60            | 24.18             | 24.23           | 0.05  |       |       |      |
| CA_5A]-5A]-66C          | (none)       | 16QAM    | 10       | 20450   | 829        | 1.0       | 10       | 2450    | 874        | 10       | 2600    | 889        | 20       | 66787   | 2145.1     | 20       | 66985   | 2164.9     | 60            | 23.19             | 23.21           | 0.02  |       |       |      |
|                         |              | QPSK     | 20       | 132323  | 1745.1     | 1.50      | 20       | 66787   | 2145.1     | 20       | 66985   | 2164.9     | 10       | 2450    | 874        | 10       | 2600    | 889        | 60            | 24.22             | 24.25           | 0.03  |       |       |      |
| CA_5A]-5A]-[66C]        | (none)       | 16QAM    | 10       | 20450   | 829        | 1.0       | 10       | 2450    | 874        | 10       | 2600    | 889        | 20       | 66787   | 2145.1     | 20       | 66985   | 2164.9     | 60            | 23.18             | 23.21           | 0.03  |       |       |      |
|                         |              | QPSK     | 20       | 132323  | 1745.1     | 1.50      | 20       | 66787   | 2145.1     | 20       | 66985   | 2164.9     | 10       | 2450    | 874        | 10       | 2600    | 889        | 60            | 24.25             | 24.20           | -0.05 |       |       |      |
| CA_5A]-5A]-[66C]        | (none)       | 16QAM    | 10       | 20450   | 829        | 1.0       | 10       | 2450    | 874        | 10       | 2600    | 889        | 20       | 66787   | 2145.1     | 20       | 66985   | 2164.9     | 60            | 23.20             | 23.24           | 0.04  |       |       |      |
|                         |              | QPSK     | 20       | 132323  | 1745.1     | 1.50      | 20       | 66787   | 2145.1     | 20       | 66985   | 2164.9     | 10       | 2450    | 874        | 10       | 2600    | 889        | 60            | 24.20             | 24.23           | 0.03  |       |       |      |
| CA_5B]-46C              | B46 SCC Only | 16QAM    | 10       | 20501   | 834.1      | 1.0       | 10       | 2501    | 879.1      | 10       | 2600    | 889        | 20       | 50692   | 5540.2     | 20       | 50890   | 5560       | 60            | 23.14             | 23.11           | -0.03 |       |       |      |
| CA_13A-[48A]-66A-[66A]  | B48 SCC Only | 16QAM    | 10       | 23230   | 782        | 1.25      | 10       | 5230    | 751        | 20       | 55340   | 3560       | 20       | 66786   | 2145       | 20       | 55938   | 3579.8     | 20            | 55990             | 3625            | 70    | 23.71 | 23.76 | 0.05 |
|                         |              | QPSK     | 20       | 132072  | 1720       | 1.50      | 20       | 66536   | 2120       | 20       | 66786   | 2145       | 10       | 5230    | 751        | 20       | 55990   | 3625       | 70            | 24.03             | 24.05           | 0.02  |       |       |      |
| CA_13A]-48C]-48A        | B48 SCC Only | 16QAM    | 10       | 23230   | 782        | 1.25      | 10       | 5230    | 751        | 20       | 55340   | 3560       | 20       | 55538   | 3579.8     | 20       | 55990   | 3625       | 70            | 23.72             | 23.69           | -0.03 |       |       |      |
| CA_13A]-48C]-48A        | B48 SCC Only | 16QAM    | 10       | 23230   | 782        | 1.25      | 10       | 5230    | 751        | 20       | 55340   | 3560       | 20       | 55538   | 3579.8     | 20       | 55990   | 3625       | 70            | 23.76             | 23.72           | -0.04 |       |       |      |
| CA_13A]-48C]-[48A]      | B48 SCC Only | 16QAM    | 10       | 23230   | 782        | 1.25      | 10       | 5230    | 751        | 20       | 55340   | 3560       | 20       | 55538   | 3579.8     | 20       | 55990   | 3625       | 70            | 23.68             | 23.70           | 0.02  |       |       |      |
| CA_48C]-48A]-66A        | B48 SCC Only | QPSK     | 20       | 132322  | 1745       | 1.50      | 20       | 66786   | 2145       | 20       | 55340   | 3560       | 20       | 55538   | 3579.8     | 20       | 55990   | 3625       | 80            | 24.28             | 24.25           | -0.03 |       |       |      |
| CA_48C]-48A]-[66A]      | B48 SCC Only | QPSK     | 20       | 132322  | 1745       | 1.50      | 20       | 66786   | 2145       | 20       | 55340   | 3560       | 20       | 55538   | 3579.8     | 20       | 55990   | 3625       | 80            | 24.23             | 24.26           | 0.03  |       |       |      |
| CA_48C]-48A]-[66A]      | B48 SCC Only | QPSK     | 20       | 132322  | 1745       | 1.50      | 20       | 66786   | 2145       | 20       | 55340   | 3560       | 20       | 55538   | 3579.8     | 20       | 55990   | 3625       | 80            | 24.26             | 24.20           | -0.06 |       |       |      |
| CA_48C]-[48A]-66A       | B48 SCC Only | QPSK     | 20       | 132322  | 1745       | 1.50      | 20       | 66786   | 2145       | 20       | 55340   | 3560       | 20       | 55538   | 3579.8     | 20       | 55990   | 3625       | 80            | 24.21             | 24.25           | 0.04  |       |       |      |
| CA_48C]-[48A]-[66A]     | B48 SCC Only | QPSK     | 20       | 132322  | 1745       | 1.50      | 20       | 66786   | 2145       | 20       | 55340   | 3560       | 20       | 55538   | 3579.8     | 20       | 55990   | 3625       | 80            | 24.28             | 24.24           | -0.04 |       |       |      |
| CA_48C]-48A]-[66A]      | B48 SCC Only | QPSK     | 20       | 132322  | 1745       | 1.50      | 20       | 66786   | 2145       | 20       | 55340   | 3560       | 20       | 55538   | 3579.8     | 20       | 55990   | 3625       | 80            | 24.26             | 24.26           | 0.00  |       |       |      |
| CA_48C]-[48A]-[66A]     | B48 SCC Only | QPSK     | 20       | 132322  | 1745       | 1.50      | 20       | 66786   | 2145       | 20       | 55340   | 3560       | 20       | 55538   | 3579.8     | 20       | 55990   | 3625       | 80            | 24.23             | 24.25           | 0.02  |       |       |      |

**5CC DL CA MIMO Measured Results**

| E-UTRA CA configuration  | Restrictions      | CC1 (UL) |          |         |            |           | CC1 (DL) |         |            |          |         | CC2 (DL)   |          |         |            |          | CC3 (DL) |            |          |         |            | CC4 (DL) |         |            |          |         | CC5 (DL)   |       |  |  |  | Aggregated BW | CA Inactive (dBm) | CA Active (dBm) | Delta |
|--------------------------|-------------------|----------|----------|---------|------------|-----------|----------|---------|------------|----------|---------|------------|----------|---------|------------|----------|----------|------------|----------|---------|------------|----------|---------|------------|----------|---------|------------|-------|--|--|--|---------------|-------------------|-----------------|-------|
|                          |                   | Mode     | BW (MHz) | Channel | Freq (MHz) | RB Offset | BW (MHz) | Channel | Freq (MHz) | BW (MHz) | Channel | Freq (MHz) | BW (MHz) | Channel | Freq (MHz) | BW (MHz) | Channel  | Freq (MHz) | BW (MHz) | Channel | Freq (MHz) | BW (MHz) | Channel | Freq (MHz) | BW (MHz) | Channel | Freq (MHz) |       |  |  |  |               |                   |                 |       |
| CA_13A-46D-[66A]         | B46 SCC Only      | 16QAM    | 10       | 23230   | 782        | 1.25      | 10       | 5230    | 751        | 20       | 66786   | 2145       | 20       | 66786   | 2145       | 20       | 50492    | 5520.2     | 20       | 50690   | 5540       | 20       | 50888   | 5559.8     | 90       | 23.67   | 23.70      | 0.03  |  |  |  |               |                   |                 |       |
|                          |                   | QPSK     | 20       | 132322  | 1745       | 1.50      | 20       | 66786   | 2145       | 10       | 5230    | 751        | 20       | 50492   | 5520.2     | 20       | 50492    | 5520.2     | 20       | 50690   | 5540       | 20       | 50888   | 5559.8     | 90       | 24.25   | 24.21      | -0.04 |  |  |  |               |                   |                 |       |
| CA_13A-[48A]-48C-66A     | B48 SCC Only      | 16QAM    | 10       | 23230   | 782        | 1.25      | 10       | 5230    | 751        | 20       | 66786   | 2145       | 20       | 66786   | 2145       | 20       | 55990    | 3625       | 20       | 56442   | 3670.2     | 20       | 56440   | 3690       | 90       | 23.71   | 23.75      | 0.04  |  |  |  |               |                   |                 |       |
|                          |                   | QPSK     | 20       | 132322  | 1745       | 1.50      | 20       | 66786   | 2145       | 10       | 5230    | 751        | 20       | 55990   | 3625       | 20       | 55990    | 3625       | 20       | 56442   | 3670.2     | 20       | 56440   | 3690       | 90       | 24.26   | 24.10      | -0.16 |  |  |  |               |                   |                 |       |
| CA_13A-48A-[48C]-66A     | B48 SCC Only      | 16QAM    | 10       | 23230   | 782        | 1.25      | 10       | 5230    | 751        | 20       | 66786   | 2145       | 20       | 66786   | 2145       | 20       | 55990    | 3625       | 20       | 56442   | 3670.2     | 20       | 56440   | 3690       | 90       | 23.68   | 23.73      | 0.05  |  |  |  |               |                   |                 |       |
|                          |                   | QPSK     | 20       | 132322  | 1745       | 1.50      | 20       | 66786   | 2145       | 10       | 5230    | 751        | 20       | 55990   | 3625       | 20       | 55990    | 3625       | 20       | 56442   | 3670.2     | 20       | 56440   | 3690       | 90       | 24.21   | 24.26      | 0.05  |  |  |  |               |                   |                 |       |
| CA_13A-48A-48C-[66A]     | B48 SCC Only      | 16QAM    | 10       | 23230   | 782        | 1.25      | 10       | 5230    | 751        | 20       | 66786   | 2145       | 20       | 66786   | 2145       | 20       | 55990    | 3625       | 20       | 56442   | 3670.2     | 20       | 56440   | 3690       | 90       | 23.71   | 23.71      | 0.00  |  |  |  |               |                   |                 |       |
|                          |                   | QPSK     | 20       | 132322  | 1745       | 1.50      | 20       | 66786   | 2145       | 10       | 5230    | 751        | 20       | 55990   | 3625       | 20       | 55990    | 3625       | 20       | 56442   | 3670.2     | 20       | 56440   | 3690       | 90       | 24.30   | 24.25      | -0.05 |  |  |  |               |                   |                 |       |
| CA_13A-[48A]-[48C]-66A   | B48 SCC Only      | 16QAM    | 10       | 23230   | 782        | 1.25      | 10       | 5230    | 751        | 20       | 66786   | 2145       | 20       | 66786   | 2145       | 20       | 55990    | 3625       | 20       | 56442   | 3670.2     | 20       | 56440   | 3690       | 90       | 23.68   | 23.72      | 0.04  |  |  |  |               |                   |                 |       |
|                          |                   | QPSK     | 20       | 132322  | 1745       | 1.50      | 20       | 66786   | 2145       | 10       | 5230    | 751        | 20       | 55990   | 3625       | 20       | 55990    | 3625       | 20       | 56442   | 3670.2     | 20       | 56440   | 3690       | 90       | 24.19   | 24.26      | 0.07  |  |  |  |               |                   |                 |       |
| CA_13A-48A-[48C]-[66A]   | B48 SCC Only      | 16QAM    | 10       | 23230   | 782        | 1.25      | 10       | 5230    | 751        | 20       | 66786   | 2145       | 20       | 66786   | 2145       | 20       | 55990    | 3625       | 20       | 56442   | 3670.2     | 20       | 56440   | 3690       | 90       | 23.73   | 23.72      | -0.01 |  |  |  |               |                   |                 |       |
|                          |                   | QPSK     | 20       | 132322  | 1745       | 1.50      | 20       | 66786   | 2145       | 10       | 5230    | 751        | 20       | 55990   | 3625       | 20       | 55990    | 3625       | 20       | 56442   | 3670.2     | 20       | 56440   | 3690       | 90       | 24.22   | 24.20      | -0.02 |  |  |  |               |                   |                 |       |
| CA_13A-[48A]-48C-[66A]   | B48 SCC Only      | 16QAM    | 10       | 23230   | 782        | 1.25      | 10       | 5230    | 751        | 20       | 66786   | 2145       | 20       | 66786   | 2145       | 20       | 55990    | 3625       | 20       | 56442   | 3670.2     | 20       | 56440   | 3690       | 90       | 23.75   | 23.76      | 0.01  |  |  |  |               |                   |                 |       |
|                          |                   | QPSK     | 20       | 132322  | 1745       | 1.50      | 20       | 66786   | 2145       | 10       | 5230    | 751        | 20       | 55990   | 3625       | 20       | 55990    | 3625       | 20       | 56442   | 3670.2     | 20       | 56440   | 3690       | 90       | 24.24   | 24.27      | 0.03  |  |  |  |               |                   |                 |       |
| CA_13A-[48A]-[48C]-[66A] | B48 SCC Only      | 16QAM    | 10       | 23230   | 782        | 1.25      | 10       | 5230    | 751        | 20       | 66786   | 2145       | 20       | 66786   | 2145       | 20       | 55990    | 3625       | 20       | 56442   | 3670.2     | 20       | 56440   | 3690       | 90       | 23.74   | 23.78      | 0.04  |  |  |  |               |                   |                 |       |
|                          |                   | QPSK     | 20       | 132322  | 1745       | 1.50      | 20       | 66786   | 2145       | 10       | 5230    | 751        | 20       | 55990   | 3625       | 20       | 55990    | 3625       | 20       | 56442   | 3670.2     | 20       | 56440   | 3690       | 90       | 24.20   | 24.25      | 0.05  |  |  |  |               |                   |                 |       |
| CA_13A-[48A]-48D         | B48 SCC Only      | 16QAM    | 10       | 23230   | 782        | 1.25      | 10       | 5230    | 751        | 20       | 55990   | 3625       | 20       | 55990   | 3625       | 20       | 56244    | 3650.4     | 20       | 56442   | 3670.2     | 20       | 56440   | 3690       | 90       | 23.68   | 23.71      | 0.03  |  |  |  |               |                   |                 |       |
|                          |                   | QPSK     | 20       | 132322  | 1745       | 1.50      | 20       | 55990   | 3625       | 20       | 55990   | 3625       | 20       | 56244   | 3650.4     | 20       | 56244    | 3650.4     | 20       | 56442   | 3670.2     | 20       | 56440   | 3690       | 90       | 23.73   | 23.72      | -0.01 |  |  |  |               |                   |                 |       |
| CA_13A-[48A]-[48D]       | B48 SCC Only      | 16QAM    | 10       | 23230   | 782        | 1.25      | 10       | 5230    | 751        | 20       | 55990   | 3625       | 20       | 55990   | 3625       | 20       | 56244    | 3650.4     | 20       | 56442   | 3670.2     | 20       | 56440   | 3690       | 90       | 23.70   | 23.70      | 0.00  |  |  |  |               |                   |                 |       |
|                          |                   | QPSK     | 20       | 132322  | 1745       | 1.50      | 20       | 55891   | 3615.1     | 20       | 55891   | 3615.1     | 20       | 56089   | 3634.9     | 20       | 56089    | 3634.9     | 20       | 56442   | 3670.2     | 20       | 56440   | 3690       | 90       | 23.72   | 23.76      | 0.04  |  |  |  |               |                   |                 |       |
| CA_13A-[48C]-48C         | B48 SCC Only      | 16QAM    | 10       | 23230   | 782        | 1.25      | 10       | 5230    | 751        | 20       | 55891   | 3615.1     | 20       | 55891   | 3615.1     | 20       | 56089    | 3634.9     | 20       | 56442   | 3670.2     | 20       | 56440   | 3690       | 90       | 23.76   | 23.71      | -0.05 |  |  |  |               |                   |                 |       |
|                          |                   | QPSK     | 20       | 132322  | 1745       | 1.50      | 20       | 55792   | 3605.2     | 20       | 55792   | 3605.2     | 20       | 55990   | 3625       | 20       | 55990    | 3625       | 20       | 56188   | 3644.8     | 20       | 56386   | 3664.6     | 90       | 24.25   | 24.21      | -0.04 |  |  |  |               |                   |                 |       |
| CA_13A-[48C]-[48C]       | B48 SCC Only      | 16QAM    | 10       | 23230   | 782        | 1.25      | 10       | 5230    | 751        | 20       | 55792   | 3605.2     | 20       | 55792   | 3605.2     | 20       | 55990    | 3625       | 20       | 56188   | 3644.8     | 20       | 56386   | 3664.6     | 90       | 24.21   | 24.21      | 0.00  |  |  |  |               |                   |                 |       |
|                          |                   | QPSK     | 20       | 132322  | 1745       | 1.50      | 20       | 55792   | 3605.2     | 20       | 55792   | 3605.2     | 20       | 55990   | 3625       | 20       | 55990    | 3625       | 20       | 56188   | 3644.8     | 20       | 56386   | 3664.6     | 90       | 24.19   | 24.21      | 0.02  |  |  |  |               |                   |                 |       |
| CA_46C-[48C]-66A         | B46, B48 SCC Only | QPSK     | 20       | 132322  | 1745       | 1.50      | 20       | 66786   | 2145       | 20       | 55891   | 3615.1     | 20       | 56089   | 3634.9     | 20       | 56089    | 3634.9     | 20       | 56092   | 5540.2     | 20       | 50890   | 5560       | 100      | 24.22   | 24.21      | -0.01 |  |  |  |               |                   |                 |       |
|                          |                   | QPSK     | 20       | 132322  | 1745       | 1.50      | 20       | 66786   | 2145       | 20       | 55891   | 3615.1     | 20       | 56089   | 3634.9     | 20       | 56089    | 3634.9     | 20       | 56092   | 5540.2     | 20       | 50890   | 5560       | 100      | 24.19   | 24.21      | 0.02  |  |  |  |               |                   |                 |       |
| CA_46C-[48C]-[66A]       | B46, B48 SCC Only | QPSK     | 20       | 132322  | 1745       | 1.50      | 20       | 66786   | 2145       | 20       | 55891   | 3615.1     | 20       | 56089   | 3634.9     | 20       | 56089    | 3634.9     | 20       | 56092   | 5540.2     | 20       | 50890   | 5560       | 100      | 24.22   | 24.20      | -0.02 |  |  |  |               |                   |                 |       |
|                          |                   | QPSK     | 20       | 132322  | 1745       | 1.50      | 20       | 66786   | 2145       | 20       | 55891   | 3615.1     | 20       | 56089   | 3634.9     | 20       | 56089    | 3634.9     | 20       | 56092   | 5540.2     | 20       | 50890   | 5560       | 100      | 24.17   | 24.21      | 0.04  |  |  |  |               |                   |                 |       |
| CA_46D-[48A]-66A         | B46, B48 SCC Only | QPSK     | 20       | 132322  | 1745       | 1.50      | 20       | 66786   | 2145       | 20       | 55990   | 3625       | 20       | 50492   | 5520.2     | 20       | 50492    | 5520.2     | 20       | 50690   | 5540       | 20       | 50888   | 5559.8     | 100      | 24.20   | 24.19      | -0.01 |  |  |  |               |                   |                 |       |
|                          |                   | QPSK     | 20       | 132322  | 1745       | 1.50      | 20       | 66786   | 2145       | 20       | 55990   | 3625       | 20       | 50492   | 5520.2     | 20       | 50492    | 5520.2     | 20       | 50690   | 5540       | 20       | 50888   | 5559.8     | 100      | 24.28   | 24.25      | -0.03 |  |  |  |               |                   |                 |       |
| CA_46D-[48A]-[66A]       | B46, B48 SCC Only | QPSK     | 20       | 132322  | 1745       | 1.50      | 20       | 66786   | 2145       | 20       | 55990   | 3625       | 20       | 50492   | 5520.2     | 20       | 50492    | 5520.2     | 20       | 50690   | 5540       | 20       | 50888   | 5559.8     | 100      | 24.10   | 24.07      | -0.03 |  |  |  |               |                   |                 |       |
|                          |                   | QPSK     | 20       | 132072  | 1720       | 1.50      | 20       | 66536   | 2120       | 20       | 66786   | 2145       | 20       | 50492   | 5520.2     | 20       | 50492    | 5520.2     | 20       | 50690   | 5540       | 20       | 50888   | 5559.8     | 100      | 24.12   | 24.10      | -0.02 |  |  |  |               |                   |                 |       |
| CA_46D-[66A]-66A         | B46 SCC Only      | QPSK     | 20       | 132072  | 1720       | 1.50      | 20       | 66536   | 2120       | 20       | 66786   | 2145       | 20       | 50492   | 5520.2     | 20       | 50492    | 5520.2     | 20       | 50690   | 5540       | 20       | 50888   | 5559.8     | 100      | 24.09   | 24.12      | 0.03  |  |  |  |               |                   |                 |       |
|                          |                   | QPSK     | 20       | 132072  | 1720       | 1.50      | 20       | 66536   | 2120       | 20       | 66786   | 2145       | 20       | 50492   | 5520.2     | 20       | 50492    | 5520.2     | 20       | 50690   | 5540       | 20       | 50888   | 5559.8     | 100      | 24.12   | 24.10      | -0.02 |  |  |  |               |                   |                 |       |
| CA_48A-[48C]-66B         | B48 SCC Only      | QPSK     | 10       | 132373  | 1750.1     | 1.50      | 10       | 66837   | 2150.1     | 10       | 66936   | 2160       | 20       | 55990   | 3625       | 20       | 55891    | 3615.1     | 20       | 55891   | 3615.1     | 20       | 56089   | 3634.9     | 80       | 23.52   | 23.56      | 0.04  |  |  |  |               |                   |                 |       |
|                          |                   | QPSK     | 10       | 132373  | 1750.1     | 1.50      | 10       | 66837   | 2150.1     | 10       | 66936   | 2160       | 20       | 55990   | 3625       | 20       | 55891    | 3615.1     | 20       | 55891   | 3615.1     | 20       | 56089   | 3634.9     | 80       | 23.56   | 23.52      | -0.04 |  |  |  |               |                   |                 |       |
| CA_48A-[48C]-[66B]       | B48 SCC Only      | QPSK     | 10       | 132373  | 1750.1     | 1.50      | 10       | 66837   | 2150.1     | 10       | 66936   | 2160       | 20       | 55990   | 3625       | 20       | 55891    | 3615.1     | 20       | 55891   | 3615.1     | 20       | 56089   | 3634.9     | 80       | 23.54   | 23.55      | 0.01  |  |  |  |               |                   |                 |       |
|                          |                   | QPSK     | 10       | 132373  | 1750.1     | 1.50      | 10       | 66837   | 2150.1     | 10       | 66936   | 2160       | 20       | 55990   | 3625       | 20       | 55891    | 3615.1     | 20       | 55891   | 3615.1     | 20       | 56089   | 3634.9     | 80       | 23.60   | 23.57      | -0.03 |  |  |  |               |                   |                 |       |
| CA_48A-[48C]-66B         | B48 SCC Only      | QPSK     | 10       | 132373  | 1750.1     | 1.50      | 10       | 66837   | 2150.1     | 10       | 66936   | 2160       | 20       | 55990   | 3625       | 20       | 55891    | 3615.1     | 20       | 55891   | 3615.1     | 20       | 56089   | 3634.9     | 80       | 23.51   | 23.54      | 0.03  |  |  |  |               |                   |                 |       |
|                          |                   | QPSK     | 10       | 132373  | 1750.1     | 1.50      | 10       | 66837   | 2150.1     | 10       | 66936   | 2160       | 20       | 55990   | 3625       | 20       | 55891    | 3615.1     | 20       | 55891   | 3615.1     | 20       | 56089   | 3634.9     | 80       | 23.54   | 23.49      | -0.05 |  |  |  |               |                   |                 |       |
| CA_48A-[48C]-[66B]       | B48 SCC Only      | QPSK     | 10       | 132373  | 1750.1     | 1.50      | 10       | 66837   | 2150.1     | 10       | 66936   | 2160       | 20       | 55990   | 3625       | 20       | 55       |            |          |         |            |          |         |            |          |         |            |       |  |  |  |               |                   |                 |       |



## 5CC DL CA MIMO Measured Results (continued)

| E-UTRA CA configuration | Restrictions | CC1 (UL) |          |         |            |           | CC1 (DL) |         |            |          |         | CC2 (DL)   |          |         |            |          | CC3 (DL) |            |          |         |            | CC4 (DL) |         |            |          |         | CC5 (DL)   |  |  |  |  | Aggregated BW | CA Inactive (dBm) | CA Active (dBm) | Delta |
|-------------------------|--------------|----------|----------|---------|------------|-----------|----------|---------|------------|----------|---------|------------|----------|---------|------------|----------|----------|------------|----------|---------|------------|----------|---------|------------|----------|---------|------------|--|--|--|--|---------------|-------------------|-----------------|-------|
|                         |              | Mode     | BW (MHz) | Channel | Freq (MHz) | RB Offset | BW (MHz) | Channel | Freq (MHz) | BW (MHz) | Channel | Freq (MHz) | BW (MHz) | Channel | Freq (MHz) | BW (MHz) | Channel  | Freq (MHz) | BW (MHz) | Channel | Freq (MHz) | BW (MHz) | Channel | Freq (MHz) | BW (MHz) | Channel | Freq (MHz) |  |  |  |  |               |                   |                 |       |
| CA_[5B]-30A-[66A]-66A   | (none)       | 16QAM    | 10       | 20501   | 834.1      | 1.0       | 10       | 2501    | 879.1      | 10       | 2600    | 889        | 10       | 9820    | 2355       | 20       | 66536    | 2120       | 20       | 66786   | 2145       | 70       | 23.50   | 23.48      | -0.02    |         |            |  |  |  |  |               |                   |                 |       |
|                         |              | 16QAM    | 10       | 27710   | 2310       | 1.0       | 10       | 9820    | 2355       | 10       | 2501    | 879.1      | 10       | 2600    | 889        | 20       | 66536    | 2120       | 20       | 66786   | 2145       | 70       | 21.80   | 21.82      | 0.02     |         |            |  |  |  |  |               |                   |                 |       |
|                         |              | QPSK     | 20       | 132072  | 1720       | 1.50      | 20       | 66536   | 2120       | 20       | 66786   | 2145       | 10       | 2501    | 879.1      | 10       | 2600     | 889        | 10       | 9820    | 2355       | 70       | 24.15   | 24.11      | -0.04    |         |            |  |  |  |  |               |                   |                 |       |
| CA_5B-30A-[66A]-[66A]   | (none)       | 16QAM    | 10       | 20501   | 834.1      | 1.0       | 10       | 2501    | 879.1      | 10       | 2600    | 889        | 10       | 9820    | 2355       | 20       | 66536    | 2120       | 20       | 66786   | 2145       | 70       | 23.41   | 23.46      | 0.05     |         |            |  |  |  |  |               |                   |                 |       |
|                         |              | 16QAM    | 10       | 27710   | 2310       | 1.0       | 10       | 9820    | 2355       | 10       | 2501    | 879.1      | 10       | 2600    | 889        | 20       | 66536    | 2120       | 20       | 66786   | 2145       | 70       | 21.80   | 21.81      | 0.01     |         |            |  |  |  |  |               |                   |                 |       |
|                         |              | QPSK     | 20       | 132072  | 1720       | 1.50      | 20       | 66536   | 2120       | 20       | 66786   | 2145       | 10       | 2501    | 879.1      | 10       | 2600     | 889        | 10       | 9820    | 2355       | 70       | 24.10   | 24.14      | 0.04     |         |            |  |  |  |  |               |                   |                 |       |
| CA_[5B]-30A-[66A]-[66A] | (none)       | 16QAM    | 10       | 20501   | 834.1      | 1.0       | 10       | 2501    | 879.1      | 10       | 2600    | 889        | 10       | 9820    | 2355       | 20       | 66536    | 2120       | 20       | 66786   | 2145       | 70       | 23.48   | 23.44      | -0.04    |         |            |  |  |  |  |               |                   |                 |       |
|                         |              | 16QAM    | 10       | 27710   | 2310       | 1.0       | 10       | 9820    | 2355       | 10       | 2501    | 879.1      | 10       | 2600    | 889        | 20       | 66536    | 2120       | 20       | 66786   | 2145       | 70       | 21.77   | 21.79      | 0.02     |         |            |  |  |  |  |               |                   |                 |       |
|                         |              | QPSK     | 20       | 132072  | 1720       | 1.50      | 20       | 66536   | 2120       | 20       | 66786   | 2145       | 10       | 2501    | 879.1      | 10       | 2600     | 889        | 10       | 9820    | 2355       | 70       | 24.12   | 24.09      | -0.03    |         |            |  |  |  |  |               |                   |                 |       |
| CA_[5A]-[48D]-[66A]     | B48 SCC Only | 16QAM    | 10       | 20525   | 836.5      | 1.0       | 10       | 2525    | 881.5      | 20       | 66786   | 2145       | 20       | 56244   | 3650.4     | 20       | 56442    | 3670.2     | 20       | 56640   | 3690       | 90       | 23.60   | 23.62      | 0.02     |         |            |  |  |  |  |               |                   |                 |       |
| CA_5A-[48C]-66A-66A     | B48 SCC Only | QPSK     | 20       | 132322  | 1745       | 1.50      | 20       | 66786   | 2145       | 10       | 2525    | 881.5      | 20       | 56244   | 3650.4     | 20       | 56442    | 3670.2     | 20       | 56640   | 3690       | 90       | 24.23   | 24.25      | 0.02     |         |            |  |  |  |  |               |                   |                 |       |
|                         |              | 16QAM    | 10       | 20525   | 836.5      | 1.0       | 10       | 2525    | 881.5      | 20       | 66536   | 2120       | 20       | 66786   | 2145       | 20       | 55891    | 3615.1     | 20       | 56089   | 3634.9     | 90       | 23.51   | 23.58      | 0.07     |         |            |  |  |  |  |               |                   |                 |       |
| CA_5A-48C-[66A]-66A     | B48 SCC Only | QPSK     | 20       | 132072  | 1720       | 1.50      | 20       | 66536   | 2120       | 20       | 66786   | 2145       | 10       | 2525    | 881.5      | 20       | 55891    | 3615.1     | 20       | 56089   | 3634.9     | 90       | 24.05   | 24.08      | 0.03     |         |            |  |  |  |  |               |                   |                 |       |
|                         |              | 16QAM    | 10       | 20525   | 836.5      | 1.0       | 10       | 2525    | 881.5      | 20       | 66536   | 2120       | 20       | 66786   | 2145       | 20       | 55891    | 3615.1     | 20       | 56089   | 3634.9     | 90       | 23.64   | 23.62      | -0.02    |         |            |  |  |  |  |               |                   |                 |       |
| CA_5A-[48C]-[66A]-66A   | B48 SCC Only | QPSK     | 20       | 132072  | 1720       | 1.50      | 20       | 66536   | 2120       | 20       | 66786   | 2145       | 10       | 2525    | 881.5      | 20       | 55891    | 3615.1     | 20       | 56089   | 3634.9     | 90       | 24.10   | 24.13      | 0.03     |         |            |  |  |  |  |               |                   |                 |       |
|                         |              | 16QAM    | 10       | 20525   | 836.5      | 1.0       | 10       | 2525    | 881.5      | 20       | 66536   | 2120       | 20       | 66786   | 2145       | 20       | 55891    | 3615.1     | 20       | 56089   | 3634.9     | 90       | 23.58   | 23.60      | 0.02     |         |            |  |  |  |  |               |                   |                 |       |
| CA_13A-48C-[66A]-66A    | B48 SCC Only | QPSK     | 20       | 132072  | 1720       | 1.25      | 10       | 5230    | 751        | 20       | 66536   | 2120       | 20       | 66786   | 2145       | 20       | 55891    | 3615.1     | 20       | 56089   | 3634.9     | 90       | 23.70   | 23.73      | 0.03     |         |            |  |  |  |  |               |                   |                 |       |
|                         |              | 16QAM    | 10       | 23230   | 782        | 1.25      | 10       | 5230    | 751        | 20       | 66536   | 2120       | 20       | 66786   | 2145       | 20       | 55891    | 3615.1     | 20       | 56089   | 3634.9     | 90       | 24.03   | 24.07      | 0.04     |         |            |  |  |  |  |               |                   |                 |       |
| CA_13A-48C-[66A]-[66A]  | B48 SCC Only | 16QAM    | 10       | 23230   | 782        | 1.25      | 10       | 5230    | 751        | 20       | 66536   | 2120       | 20       | 66786   | 2145       | 20       | 55891    | 3615.1     | 20       | 56089   | 3634.9     | 90       | 23.69   | 23.75      | 0.06     |         |            |  |  |  |  |               |                   |                 |       |
|                         |              | QPSK     | 20       | 132072  | 1720       | 1.50      | 20       | 66536   | 2120       | 20       | 66786   | 2145       | 10       | 5230    | 751        | 20       | 55891    | 3615.1     | 20       | 56089   | 3634.9     | 90       | 24.00   | 24.05      | 0.05     |         |            |  |  |  |  |               |                   |                 |       |
| CA_13A-[48C]-66A-66A    | B48 SCC Only | 16QAM    | 10       | 23230   | 782        | 1.25      | 10       | 5230    | 751        | 20       | 66536   | 2120       | 20       | 66786   | 2145       | 20       | 55891    | 3615.1     | 20       | 56089   | 3634.9     | 90       | 23.75   | 23.78      | 0.03     |         |            |  |  |  |  |               |                   |                 |       |
|                         |              | QPSK     | 20       | 132072  | 1720       | 1.50      | 20       | 66536   | 2120       | 20       | 66786   | 2145       | 10       | 5230    | 751        | 20       | 55891    | 3615.1     | 20       | 56089   | 3634.9     | 90       | 23.98   | 24.01      | 0.03     |         |            |  |  |  |  |               |                   |                 |       |
| CA_13A-[48C]-[66A]-66A  | B48 SCC Only | 16QAM    | 10       | 23230   | 782        | 1.25      | 10       | 5230    | 751        | 20       | 66536   | 2120       | 20       | 66786   | 2145       | 20       | 55891    | 3615.1     | 20       | 56089   | 3634.9     | 90       | 23.70   | 23.74      | 0.04     |         |            |  |  |  |  |               |                   |                 |       |
|                         |              | QPSK     | 20       | 132072  | 1720       | 1.50      | 20       | 66536   | 2120       | 20       | 66786   | 2145       | 10       | 5230    | 751        | 20       | 55891    | 3615.1     | 20       | 56089   | 3634.9     | 90       | 24.02   | 23.99      | -0.03    |         |            |  |  |  |  |               |                   |                 |       |
| CA_[5A]-[48C]-66A-66A   | B48 SCC Only | 16QAM    | 10       | 20525   | 836.5      | 1.0       | 10       | 2525    | 881.5      | 20       | 66536   | 2120       | 20       | 66786   | 2145       | 20       | 55891    | 3615.1     | 20       | 56089   | 3634.9     | 90       | 23.68   | 23.65      | -0.03    |         |            |  |  |  |  |               |                   |                 |       |
|                         |              | QPSK     | 20       | 132072  | 1720       | 1.50      | 20       | 66536   | 2120       | 20       | 66786   | 2145       | 10       | 2525    | 881.5      | 20       | 55891    | 3615.1     | 20       | 56089   | 3634.9     | 90       | 24.00   | 24.04      | 0.04     |         |            |  |  |  |  |               |                   |                 |       |
| CA_[5A]-[48C]-[66A]-66A | B48 SCC Only | 16QAM    | 10       | 20525   | 836.5      | 1.0       | 10       | 2525    | 881.5      | 20       | 66536   | 2120       | 20       | 66786   | 2145       | 20       | 55891    | 3615.1     | 20       | 56089   | 3634.9     | 90       | 23.67   | 23.58      | -0.09    |         |            |  |  |  |  |               |                   |                 |       |
|                         |              | QPSK     | 20       | 132072  | 1720       | 1.50      | 20       | 66536   | 2120       | 20       | 66786   | 2145       | 10       | 2525    | 881.5      | 20       | 55891    | 3615.1     | 20       | 56089   | 3634.9     | 90       | 24.06   | 24.01      | -0.05    |         |            |  |  |  |  |               |                   |                 |       |
| CA_5A-48C-[66A]-[66A]   | B48 SCC Only | 16QAM    | 10       | 20525   | 836.5      | 1.0       | 10       | 2525    | 881.5      | 20       | 66536   | 2120       | 20       | 66786   | 2145       | 20       | 55891    | 3615.1     | 20       | 56089   | 3634.9     | 90       | 23.52   | 23.61      | 0.09     |         |            |  |  |  |  |               |                   |                 |       |
|                         |              | QPSK     | 20       | 132072  | 1720       | 1.50      | 20       | 66536   | 2120       | 20       | 66786   | 2145       | 10       | 2525    | 881.5      | 20       | 55891    | 3615.1     | 20       | 56089   | 3634.9     | 90       | 24.09   | 24.05      | -0.04    |         |            |  |  |  |  |               |                   |                 |       |
| CA_[5A]-48C-[66A]-[66A] | B48 SCC Only | 16QAM    | 10       | 20525   | 836.5      | 1.0       | 10       | 2525    | 881.5      | 20       | 66536   | 2120       | 20       | 66786   | 2145       | 20       | 55891    | 3615.1     | 20       | 56089   | 3634.9     | 90       | 23.70   | 23.61      | -0.09    |         |            |  |  |  |  |               |                   |                 |       |
|                         |              | QPSK     | 20       | 132072  | 1720       | 1.50      | 20       | 66536   | 2120       | 20       | 66786   | 2145       | 10       | 2525    | 881.5      | 20       | 55891    | 3615.1     | 20       | 56089   | 3634.9     | 90       | 24.02   | 24.06      | 0.04     |         |            |  |  |  |  |               |                   |                 |       |
| CA_[5A]-[48C]-66A-66A   | B48 SCC Only | 16QAM    | 10       | 20525   | 836.5      | 1.0       | 10       | 2525    | 881.5      | 20       | 66536   | 2120       | 20       | 66786   | 2145       | 20       | 55891    | 3615.1     | 20       | 56089   | 3634.9     | 90       | 23.65   | 23.67      | 0.02     |         |            |  |  |  |  |               |                   |                 |       |
|                         |              | QPSK     | 20       | 132072  | 1720       | 1.50      | 20       | 66536   | 2120       | 20       | 66786   | 2145       | 10       | 2525    | 881.5      | 20       | 55891    | 3615.1     | 20       | 56089   | 3634.9     | 90       | 23.73   | 23.70      | -0.03    |         |            |  |  |  |  |               |                   |                 |       |

## 6CC DL CA MIMO Measured Results

| E-UTRA CA configuration | Restrictions | CC1 (UL) |          |         |            |           | CC1 (DL) |         |            |          |         | CC2 (DL)   |          |         |            |          | CC3 (DL) |            |          |         |            | CC4 (DL) |         |            |          |         | CC5 (DL)   |          |         |            |  | CC6 (DL) |  |  |  |  | Aggregated BW | CA Inactive (dBm) | CA Active (dBm) | Delta |
|-------------------------|--------------|----------|----------|---------|------------|-----------|----------|---------|------------|----------|---------|------------|----------|---------|------------|----------|----------|------------|----------|---------|------------|----------|---------|------------|----------|---------|------------|----------|---------|------------|--|----------|--|--|--|--|---------------|-------------------|-----------------|-------|
|                         |              | Mode     | BW (MHz) | Channel | Freq (MHz) | RB Offset | BW (MHz) | Channel | Freq (MHz) | BW (MHz) | Channel | Freq (MHz) | BW (MHz) | Channel | Freq (MHz) | BW (MHz) | Channel  | Freq (MHz) | BW (MHz) | Channel | Freq (MHz) | BW (MHz) | Channel | Freq (MHz) | BW (MHz) | Channel | Freq (MHz) | BW (MHz) | Channel | Freq (MHz) |  |          |  |  |  |  |               |                   |                 |       |
| CA_13A-48D-[66A]-66A    | B48 SCC Only | 16QAM    | 10       | 23230   | 782        | 1,25      | 10       | 5230    | 751        | 20       | 66536   | 2120       | 20       | 66786   | 2145       | 20       | 55792    | 3605.2     | 20       | 55990   | 3625       | 20       | 56188   | 3644.8     | 110      | 23.70   | 23.71      | 0.01     |         |            |  |          |  |  |  |  |               |                   |                 |       |
|                         |              | QPSK     | 20       | 132072  | 1720       | 1,50      | 20       | 66536   | 2120       | 20       | 66786   | 2145       | 10       | 5230    | 751        | 20       | 55792    | 3605.2     | 20       | 55990   | 3625       | 20       | 56188   | 3644.8     | 110      | 23.98   | 23.97      | -0.01    |         |            |  |          |  |  |  |  |               |                   |                 |       |
| CA_13A-48D-[66A]-[66A]  | B48 SCC Only | 16QAM    | 10       | 23230   | 782        | 1,25      | 10       | 5230    | 751        | 20       | 66536   | 2120       | 20       | 66786   | 2145       | 20       | 55792    | 3605.2     | 20       | 55990   | 3625       | 20       | 56188   | 3644.8     | 110      | 23.61   | 23.68      | 0.07     |         |            |  |          |  |  |  |  |               |                   |                 |       |
|                         |              | QPSK     | 20       | 132072  | 1720       | 1,50      | 20       | 66536   | 2120       | 20       | 66786   | 2145       | 10       | 5230    | 751        | 20       | 55792    | 3605.2     | 20       | 55990   | 3625       | 20       | 56188   | 3644.8     | 110      | 23.98   | 23.96      | -0.02    |         |            |  |          |  |  |  |  |               |                   |                 |       |
| CA_13A-[48D]-66A-66A    | B48 SCC Only | 16QAM    | 10       | 23230   | 782        | 1,25      | 10       | 5230    | 751        | 20       | 66536   | 2120       | 20       | 66786   | 2145       | 20       | 55792    | 3605.2     | 20       | 55990   | 3625       | 20       | 56188   | 3644.8     | 110      | 23.70   | 23.68      | -0.02    |         |            |  |          |  |  |  |  |               |                   |                 |       |
|                         |              | QPSK     | 20       | 132072  | 1720       | 1,50      | 20       | 66536   | 2120       | 20       | 66786   | 2145       | 10       | 5230    | 751        | 20       | 55792    | 3605.2     | 20       | 55990   | 3625       | 20       | 56188   | 3644.8     | 110      | 23.95   | 23.94      | -0.01    |         |            |  |          |  |  |  |  |               |                   |                 |       |
| CA_13A-[48D]-[66A]-66A  | B48 SCC Only | 16QAM    | 10       | 23230   | 782        | 1,25      | 10       | 5230    | 751        | 20       | 66536   | 2120       | 20       | 66786   | 2145       | 20       | 55792    | 3605.2     | 20       | 55990   | 3625       | 20       | 56188   | 3644.8     | 110      | 23.65   | 23.73      | 0.08     |         |            |  |          |  |  |  |  |               |                   |                 |       |
|                         |              | QPSK     | 20       | 132072  | 1720       | 1,50      | 20       | 66536   | 2120       | 20       | 66786   | 2145       | 10       | 5230    | 751        | 20       | 55792    | 3605.2     | 20       | 55990   | 3625       | 20       | 56188   | 3644.8     | 110      | 23.96   | 23.97      | 0.01     |         |            |  |          |  |  |  |  |               |                   |                 |       |
| CA_[5A]-48D-66A-66A     | B48 SCC Only | 16QAM    | 10       | 20525   | 836.5      | 1,0       | 10       | 2525    | 881.5      | 20       | 66536   | 2120       | 20       | 66786   | 2145       | 20       | 55792    | 3605.2     | 20       | 55990   | 3625       | 20       | 56188   | 3644.8     | 110      | 23.24   | 23.25      | 0.01     |         |            |  |          |  |  |  |  |               |                   |                 |       |
|                         |              | QPSK     | 20       | 132072  | 1720       | 1,50      | 20       | 66536   | 2120       | 20       | 66786   | 2145       | 10       | 2525    | 881.5      | 20       | 55792    | 3605.2     | 20       | 55990   | 3625       | 20       | 56188   | 3644.8     | 110      | 23.98   | 24.00      | 0.02     |         |            |  |          |  |  |  |  |               |                   |                 |       |
| CA_[5A]-48D-[66A]-66A   | B48 SCC Only | 16QAM    | 10       | 20525   | 836.5      | 1,0       | 10       | 2525    | 881.5      | 20       | 66536   | 2120       | 20       | 66786   | 2145       | 20       | 55792    | 3605.2     | 20       | 55990   | 3625       | 20       | 56188   | 3644.8     | 110      | 23.24   | 23.26      | 0.02     |         |            |  |          |  |  |  |  |               |                   |                 |       |
|                         |              | QPSK     | 20       | 132072  | 1720       | 1,50      | 20       | 66536   | 2120       | 20       | 66786   | 2145       | 10       | 2525    | 881.5      | 20       | 55792    | 3605.2     | 20       | 55990   | 3625       | 20       | 56188   | 3644.8     | 110      | 24.02   | 24.00      | -0.02    |         |            |  |          |  |  |  |  |               |                   |                 |       |
| CA_[5A]-48D-[66A]-66A   | B48 SCC Only | 16QAM    | 10       | 20525   | 836.5      | 1,0       | 10       | 2525    | 881.5      | 20       | 66536   | 2120       | 20       | 66786   | 2145       | 20       | 55792    | 3605.2     | 20       | 55990   | 3625       | 20       | 56188   | 3644.8     | 110      | 23.20   | 23.22      | 0.02     |         |            |  |          |  |  |  |  |               |                   |                 |       |
|                         |              | QPSK     | 20       | 132072  | 1720       | 1,50      | 20       | 66536   | 2120       | 20       | 66786   | 2145       | 10       | 2525    | 881.5      | 20       | 55792    | 3605.2     | 20       | 55990   | 3625       | 20       | 56188   | 3644.8     | 110      | 24.02   | 24.03      | 0.01     |         |            |  |          |  |  |  |  |               |                   |                 |       |
| CA_[5A]-48D-[66A]-[66A] | B48 SCC Only | 16QAM    | 10       | 20525   | 836.5      | 1,0       | 10       | 2525    | 881.5      | 20       | 66536   | 2120       | 20       | 66786   | 2145       | 20       | 55792    | 3605.2     | 20       | 55990   | 3625       | 20       | 56188   | 3644.8     | 110      | 23.23   | 23.21      | -0.02    |         |            |  |          |  |  |  |  |               |                   |                 |       |
|                         |              | QPSK     | 20       | 132072  | 1720       | 1,50      | 20       | 66536   | 2120       | 20       | 66786   | 2145       | 10       | 2525    | 881.5      | 20       | 55792    | 3605.2     | 20       | 55990   | 3625       | 20       | 56188   | 3644.8     | 110      | 24.01   | 24.02      | 0.01     |         |            |  |          |  |  |  |  |               |                   |                 |       |
| CA_[5A]-48D-[66A]-[66A] | B48 SCC Only | 16QAM    | 10       | 20525   | 836.5      | 1,0       | 10       | 2525    | 881.5      | 20       | 66536   | 2120       | 20       | 66786   | 2145       | 20       | 55792    | 3605.2     | 20       | 55990   | 3625       | 20       | 56188   | 3644.8     | 110      | 23.35   | 23.30      | -0.05    |         |            |  |          |  |  |  |  |               |                   |                 |       |
|                         |              | QPSK     | 20       | 132072  | 1720       | 1,50      | 20       | 66536   | 2120       | 20       | 66786   | 2145       | 10       | 2525    | 881.5      | 20       | 55792    | 3605.2     | 20       | 55990   | 3625       | 20       | 56188   | 3644.8     | 110      | 23.93   | 23.97      | 0.04     |         |            |  |          |  |  |  |  |               |                   |                 |       |
| CA_[5A]-[48D]-66A-66A   | B48 SCC Only | 16QAM    | 10       | 20525   | 836.5      | 1,0       | 10       | 2525    | 881.5      | 20       | 66536   | 2120       | 20       | 66786   | 2145       | 20       | 55792    | 3605.2     | 20       | 55990   | 3625       | 20       | 56188   | 3644.8     | 110      | 23.22   | 23.24      | 0.02     |         |            |  |          |  |  |  |  |               |                   |                 |       |
|                         |              | QPSK     | 20       | 132072  | 1720       | 1,50      | 20       | 66536   | 2120       | 20       | 66786   | 2145       | 10       | 2525    | 881.5      | 20       | 55792    | 3605.2     | 20       | 55990   | 3625       | 20       | 56188   | 3644.8     | 110      | 23.98   | 23.96      | -0.02    |         |            |  |          |  |  |  |  |               |                   |                 |       |
| CA_[5A]-[48D]-[66A]-66A | B48 SCC Only | 16QAM    | 10       | 20525   | 836.5      | 1,0       | 10       | 2525    | 881.5      | 20       | 66536   | 2120       | 20       | 66786   | 2145       | 20       | 55792    | 3605.2     | 20       | 55990   | 3625       | 20       | 56188   | 3644.8     | 110      | 23.22   | 23.20      | -0.02    |         |            |  |          |  |  |  |  |               |                   |                 |       |
|                         |              | QPSK     | 20       | 132072  | 1720       | 1,50      | 20       | 66536   | 2120       | 20       | 66786   | 2145       | 10       | 2525    | 881.5      | 20       | 55792    | 3605.2     | 20       | 55990   | 3625       | 20       | 56188   | 3644.8     | 110      | 23.96   | 23.98      | 0.02     |         |            |  |          |  |  |  |  |               |                   |                 |       |