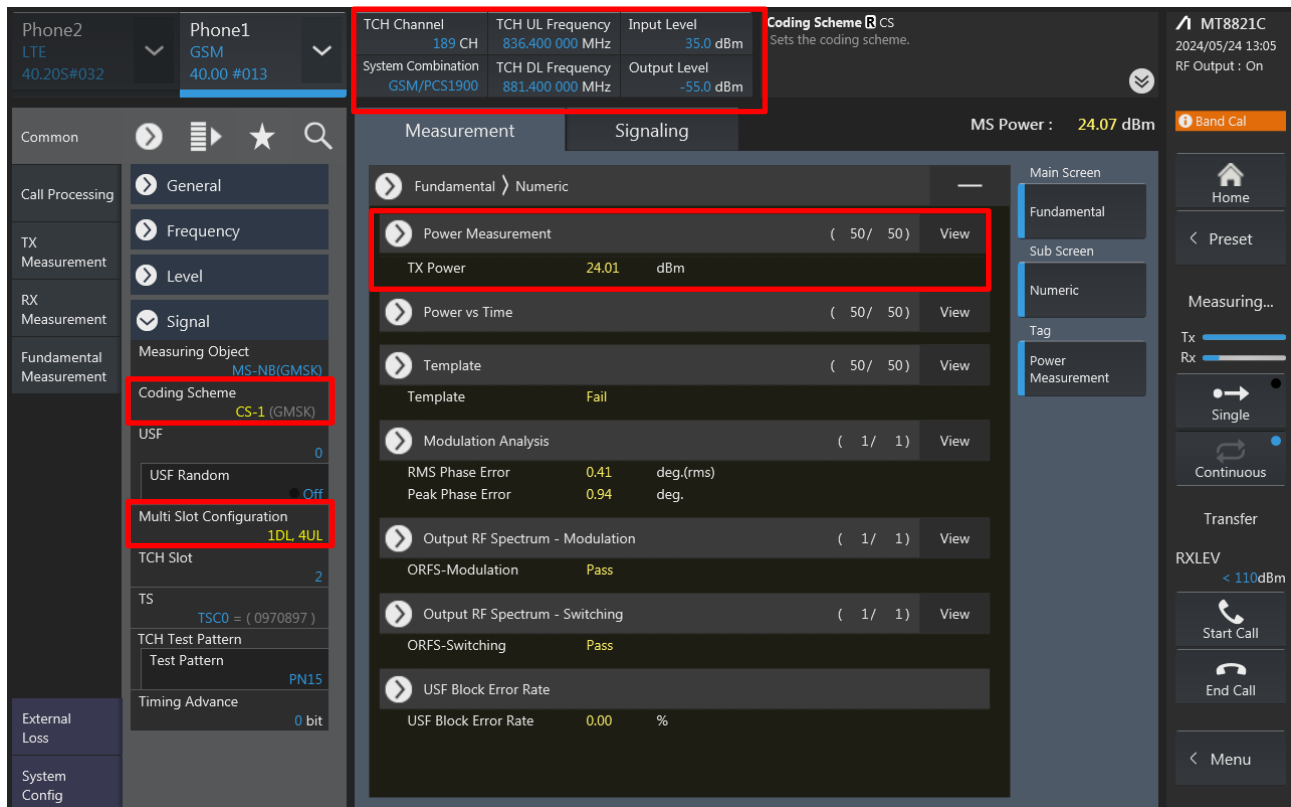


### Power measurement connection diagram:

The power measurement for 2G/3G/LTE/5G FR1/UL and DL CA is to establish a connection between device and call box, and via call box to configure Bands, channel, BWs, RB size, carrier aggregation of CA, frequency channels, SCS and maximum output power. Hereunder is screenshot call box connection information for 2G/3G/LTE/5G FR1/UL and DL CA.

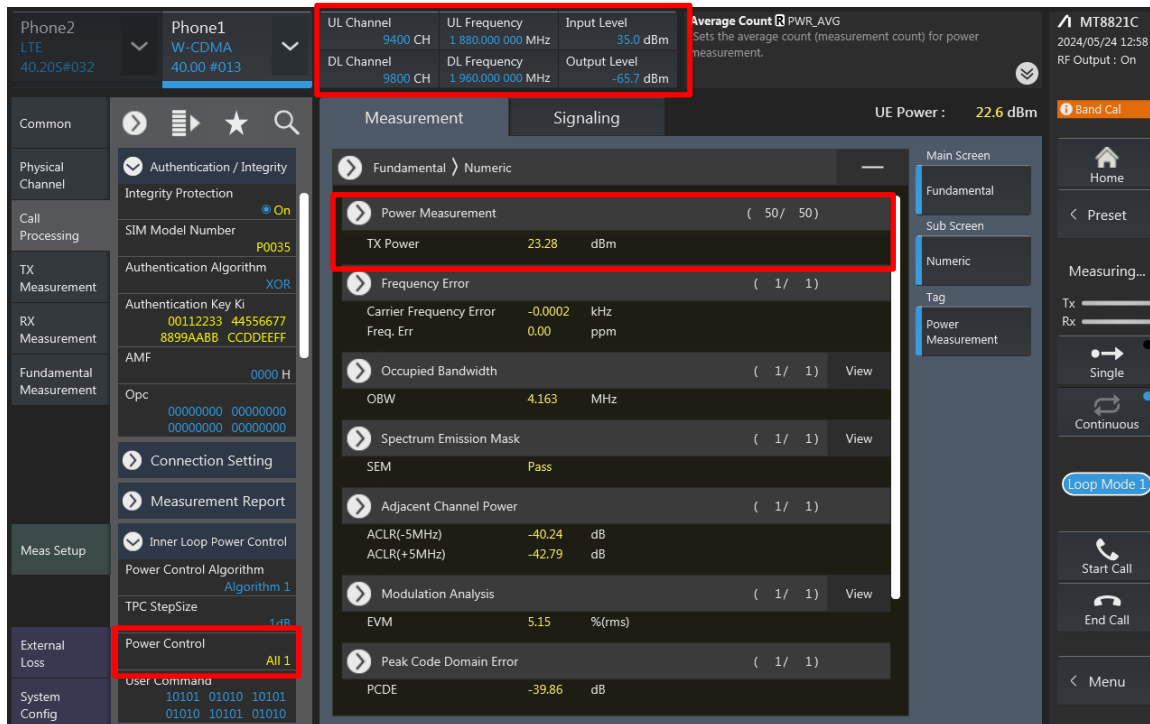
#### <GSM>



The screenshot displays the SPORTON LAB. software interface for GSM power measurement. The interface is divided into several sections:

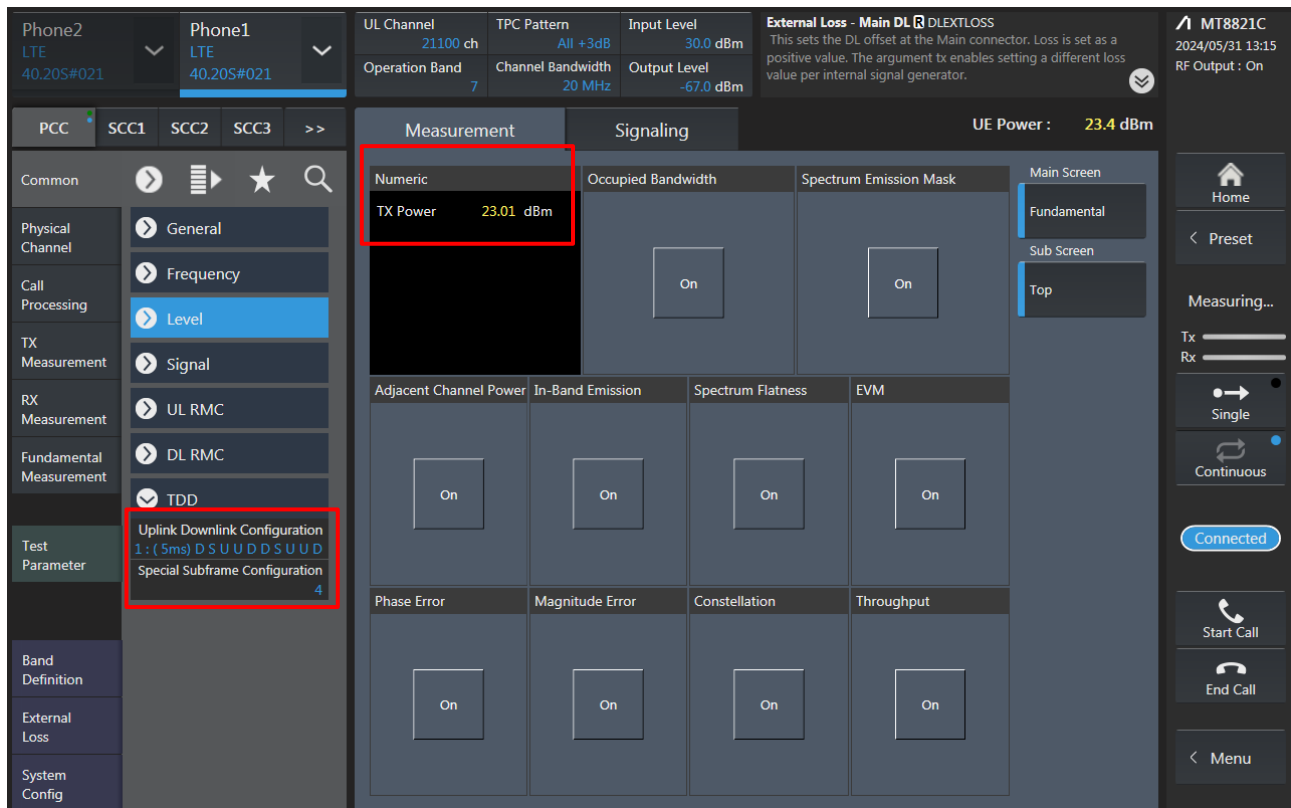
- Top Bar:** Shows Phone2 (LTE, 40.205#032) and Phone1 (GSM, 40.00 #013). The TCH Channel is 189 CH, TCH UL Frequency is 836.400 000 MHz, Input Level is 35.0 dBm, and TCH DL Frequency is 881.400 000 MHz. The Coding Scheme is CS.
- Left Sidebar:** Contains navigation options like Call Processing, TX Measurement, RX Measurement, Fundamental Measurement, and External Loss. The 'Fundamental Measurement' section is expanded, showing 'Coding Scheme' as CS-1 (GMSK) and 'Multi Slot Configuration' as 1DL, 4UL.
- Main Area:** Displays 'Measurement' and 'Signaling' tabs. The 'Measurement' tab is active, showing 'Power Measurement' with a value of 24.01 dBm. Other measurements include 'Power vs Time', 'Template', 'Modulation Analysis', 'Output RF Spectrum - Modulation', 'Output RF Spectrum - Switching', and 'USF Block Error Rate'.
- Right Sidebar:** Shows 'MT8821C' with a date/time of 2024/05/24 13:05 and 'RF Output : On'. It also includes a 'Band Cal' button and a 'Main Screen' section with 'Fundamental', 'Sub Screen', 'Numeric', and 'Tag' options.

### <WCDMA>



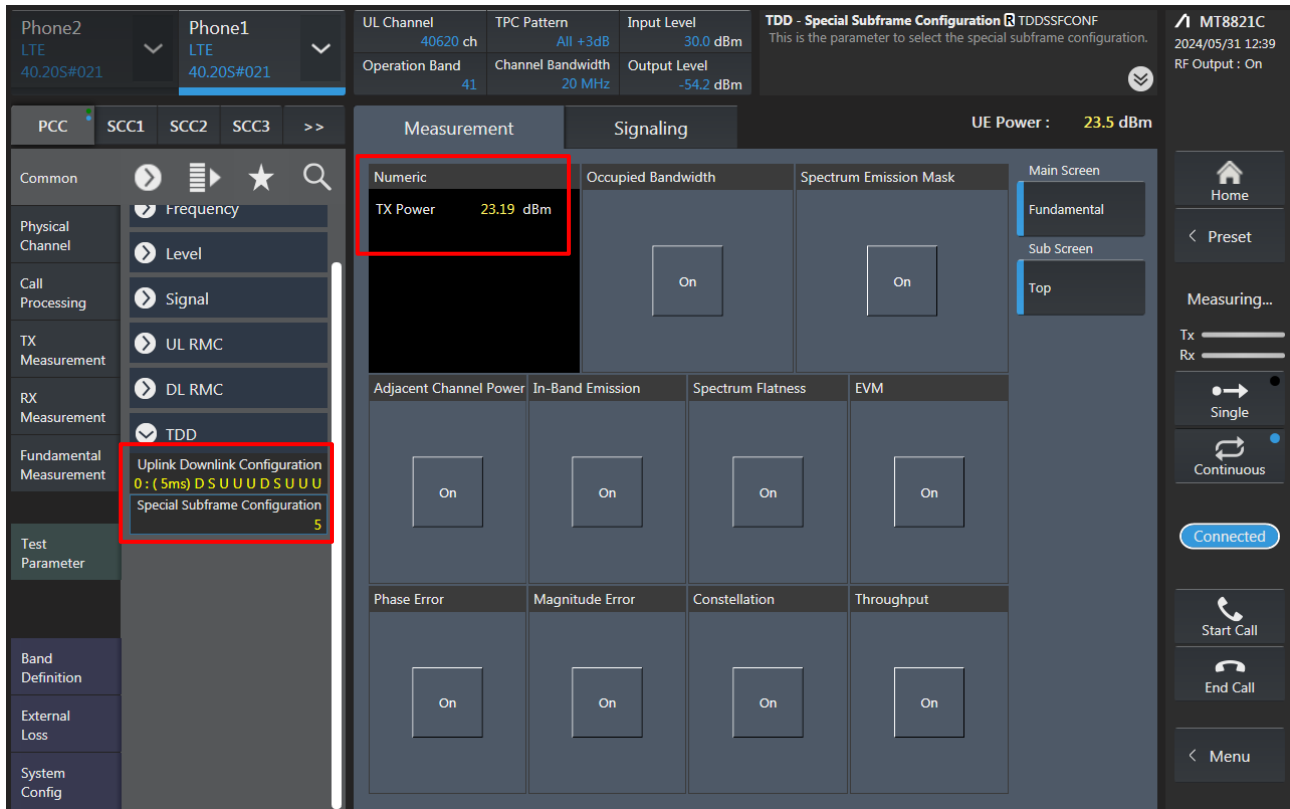
The screenshot shows the WCDMA measurement interface. The top bar displays 'Phone2 LTE 40.20S#032' and 'Phone1 W-CDMA 40.00 #013'. The 'Measurement' tab is active, showing 'Fundamental' and 'Numeric' views. The 'Power Measurement' section is highlighted with a red box, showing 'TX Power' at 23.28 dBm. The 'Occupied Bandwidth' section shows 'OBW' at 4.163 MHz. The 'Adjacent Channel Power' section shows 'ACLR(-5MHz)' at -40.24 dB and 'ACLR(+5MHz)' at -42.79 dB. The 'Modulation Analysis' section shows 'EVM' at 5.15 % (rms). The 'Peak Code Domain Error' section shows 'PCDE' at -39.86 dB. The 'UE Power' is 22.6 dBm. The 'Band Cal' button is visible on the right. The 'Meas Setup' section on the left shows 'Power Control' set to 'All 1'.

### <LTE>



The screenshot shows the LTE measurement interface. The top bar displays 'Phone2 LTE 40.20S#021' and 'Phone1 LTE 40.20S#021'. The 'Measurement' tab is active, showing 'Numeric' and 'Occupied Bandwidth' views. The 'Power Measurement' section is highlighted with a red box, showing 'TX Power' at 23.01 dBm. The 'Occupied Bandwidth' section shows 'OBW' at 20 MHz. The 'Adjacent Channel Power' section shows 'ACLR(-5MHz)' at -40.24 dB and 'ACLR(+5MHz)' at -42.79 dB. The 'Modulation Analysis' section shows 'EVM' at 5.15 % (rms). The 'Peak Code Domain Error' section shows 'PCDE' at -39.86 dB. The 'UE Power' is 23.4 dBm. The 'Band Cal' button is visible on the right. The 'Meas Setup' section on the left shows 'Uplink Downlink Configuration' set to '1: (5ms) D S U U D D S U U D' and 'Special Subframe Configuration' set to '4'.

### <LTE TDD Power class 3>



Phone2 LTE 40.20S#021 Phone1 LTE 40.20S#021

UL Channel 40620 ch TPC Pattern All +3dB Input Level 30.0 dBm TDD - Special Subframe Configuration TDDSSFCNF This is the parameter to select the special subframe configuration. MT8821C 2024/05/31 12:39 RF Output : On

Operation Band 41 Channel Bandwidth 20 MHz Output Level -54.2 dBm

UE Power : 23.5 dBm

Measurement Signaling

Numeric TX Power 23.19 dBm

Occupied Bandwidth Spectrum Emission Mask

On On

Adjacent Channel Power In-Band Emission Spectrum Flatness EVM

On On On On

Phase Error Magnitude Error Constellation Throughput

On On On On

Common Frequency

Physical Channel Level

Call Processing Signal

TX Measurement UL RMC

RX Measurement DL RMC

Fundamental Measurement TDD

Uplink Downlink Configuration 0 : (5ms) D S U U U D S U U U

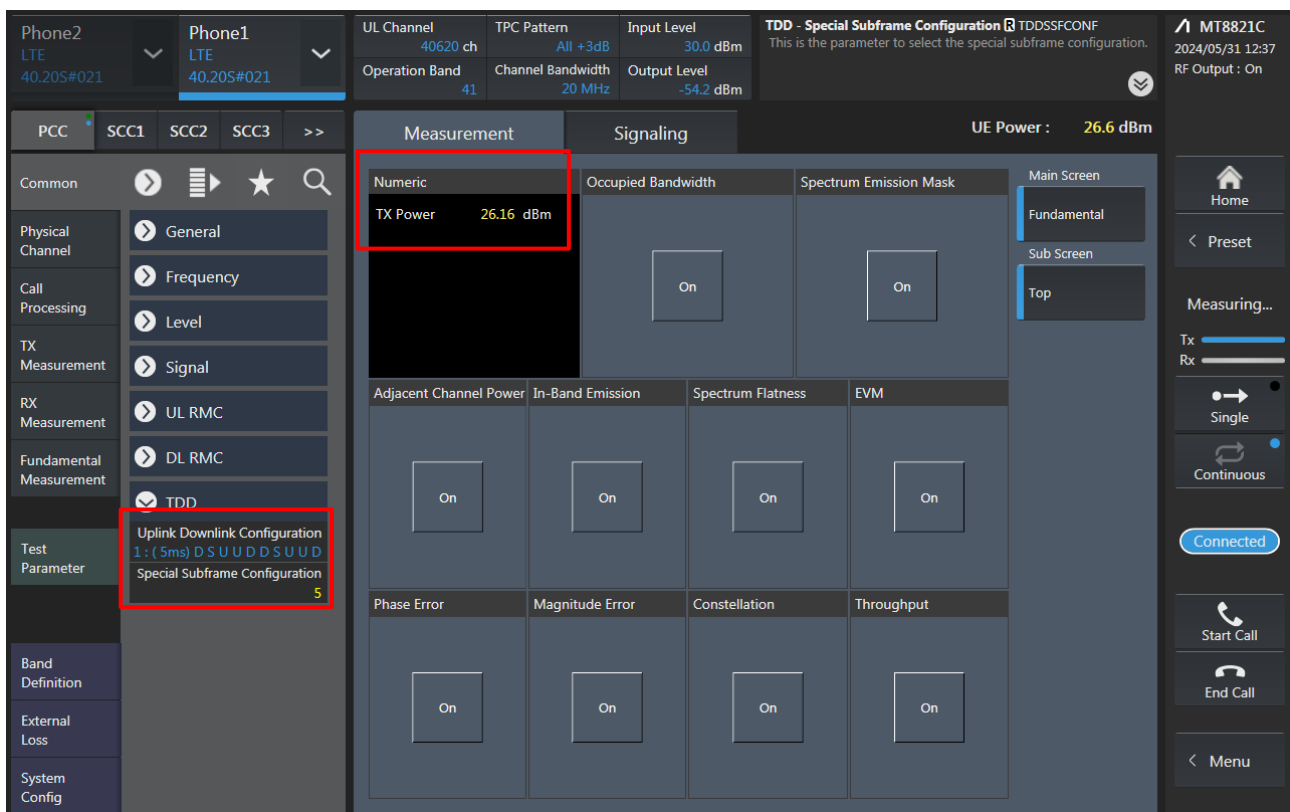
Special Subframe Configuration 5

Test Parameter

Band Definition External Loss System Config

Home Preset Measuring... Tx Rx Single Continuous Connected Start Call End Call Menu

### <LTE TDD Power class 2>



Phone2 LTE 40.20S#021 Phone1 LTE 40.20S#021

UL Channel 40620 ch TPC Pattern All +3dB Input Level 30.0 dBm TDD - Special Subframe Configuration TDDSSFCNF This is the parameter to select the special subframe configuration. MT8821C 2024/05/31 12:37 RF Output : On

Operation Band 41 Channel Bandwidth 20 MHz Output Level -54.2 dBm

UE Power : 26.6 dBm

Measurement Signaling

Numeric TX Power 26.16 dBm

Occupied Bandwidth Spectrum Emission Mask

On On

Adjacent Channel Power In-Band Emission Spectrum Flatness EVM

On On On On

Phase Error Magnitude Error Constellation Throughput

On On On On

Common General

Physical Channel Frequency

Call Processing Level

TX Measurement Signal

RX Measurement UL RMC

Fundamental Measurement DL RMC

Fundamental Measurement TDD

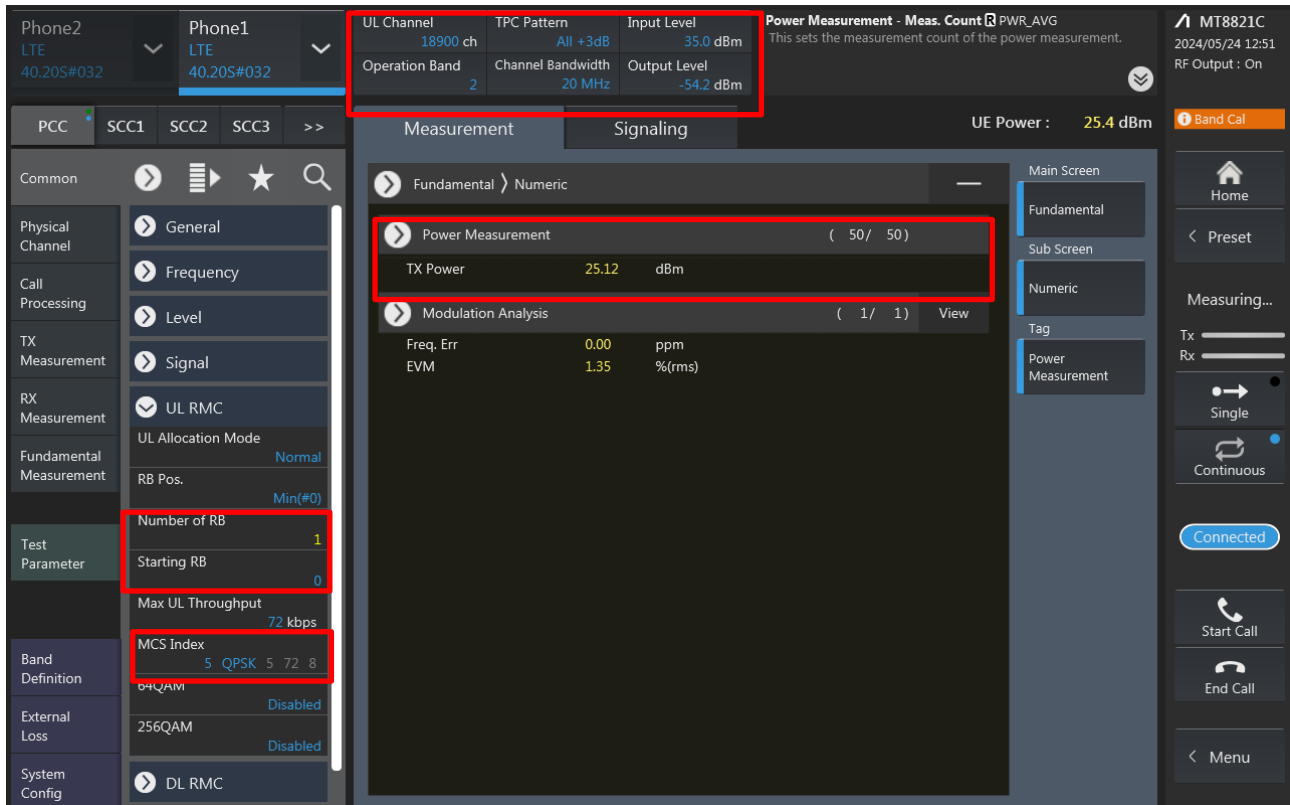
Uplink Downlink Configuration 1 : (5ms) D S U U D D S U U U

Special Subframe Configuration 5

Test Parameter

Band Definition External Loss System Config

Home Preset Measuring... Tx Rx Single Continuous Connected Start Call End Call Menu



**Phone2** LTE 40.20S#032

**Phone1** LTE 40.20S#032

**UL Channel** 18900 ch

**TPC Pattern** All +3dB

**Input Level** 35.0 dBm

**Operation Band** 2

**Channel Bandwidth** 20 MHz

**Output Level** -54.2 dBm

**Power Measurement - Meas. Count** PWR\_AVG

This sets the measurement count of the power measurement.

**MT8821C** 2024/05/24 12:51 RF Output : On

**Measurement** **Signaling** **UE Power :** 25.4 dBm

**Common**

**Physical Channel**

**Call Processing**

**TX Measurement**

**RX Measurement**

**Fundamental Measurement**

**Test Parameter**

**Band Definition**

**External Loss**

**System Config**

**General**

**Frequency**

**Level**

**Signal**

**UL RMC**

**UL Allocation Mode** Normal

**RB Pos.** Min(#0)

**Number of RB** 1

**Starting RB** 0

**Max UL Throughput** 72 kbps

**MCS Index** 5 QPSK 5 72 8

**DL RMC**

**Fundamental** **Numeric**

**Power Measurement** ( 50 / 50 )

**TX Power** 25.12 dBm

**Modulation Analysis** ( 1 / 1 ) View

**Freq. Err** 0.00 ppm

**EVM** 1.35 %(rms)

**Main Screen**

**Fundamental**

**Sub Screen**

**Numeric**

**Tag**

**Power Measurement**

**Home**

**Preset**

**Measuring...**

**Tx**

**Rx**

**Single**

**Continuous**

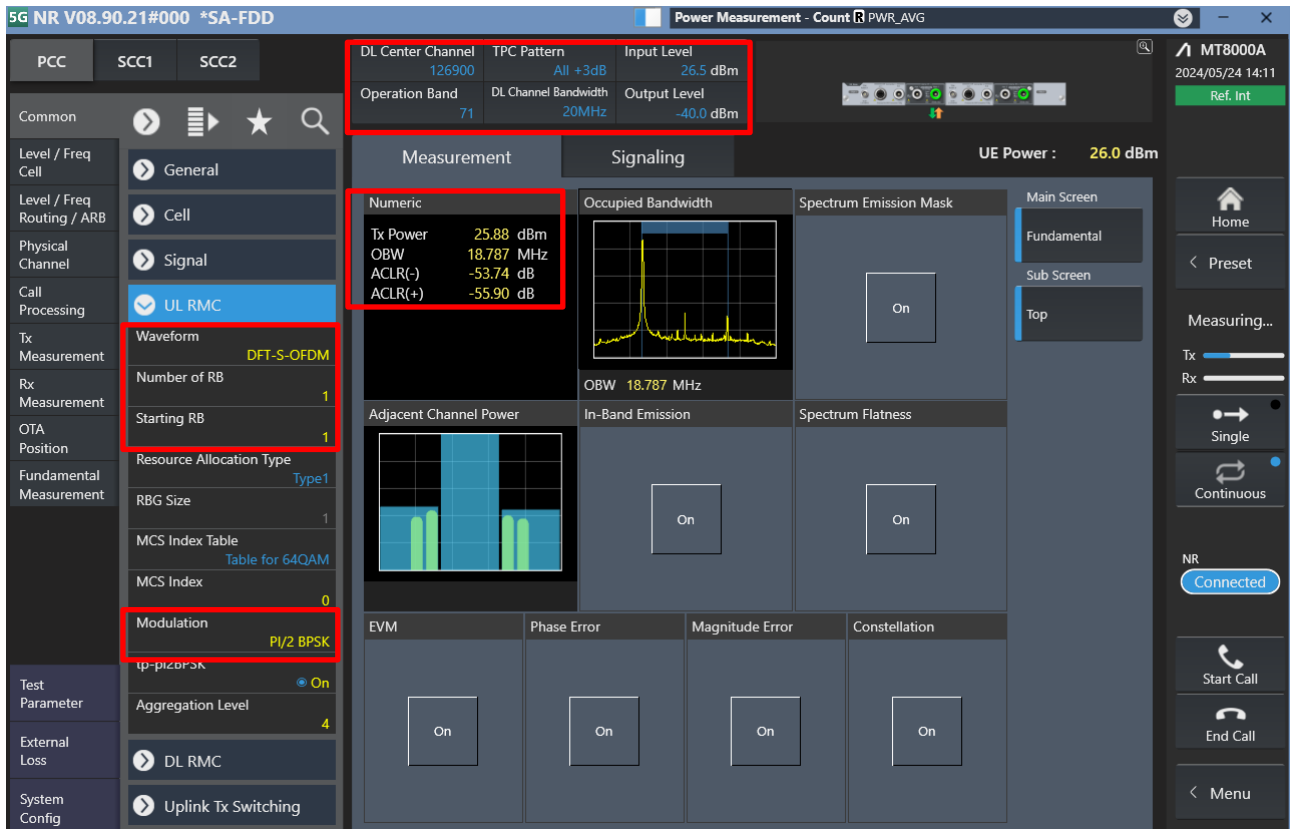
**Connected**

**Start Call**

**End Call**

**Menu**

### <5G NR FR1>



**5G NR V08.90.21#000 \*SA-FDD**

**DL Center Channel** 126900

**TPC Pattern** All +3dB

**Input Level** 26.5 dBm

**Operation Band** 71

**DL Channel Bandwidth** 20MHz

**Output Level** -40.0 dBm

**Power Measurement - Count** PWR\_AVG

**MT8000A** 2024/05/24 14:11 Ref. Int

**Measurement** **Signaling** **UE Power :** 26.0 dBm

**Common**

**Level / Freq Cell**

**Level / Freq Routing / ARB**

**Physical Channel**

**Call Processing**

**TX Measurement**

**Rx Measurement**

**OTA Position**

**Fundamental Measurement**

**Test Parameter**

**External Loss**

**System Config**

**General**

**Cell**

**Signal**

**UL RMC**

**Waveform** DFT-S-OFDM

**Number of RB** 1

**Starting RB** 1

**Resource Allocation Type** Type1

**RBG Size** 1

**MCS Index Table** Table for 64QAM

**MCS Index** 0

**Modulation** Pi/2 BPSK

**DL RMC**

**Uplink Tx Switching**

**Numeric**

**Tx Power** 25.88 dBm

**OBW** 18.787 MHz

**ACL(-)** -53.74 dB

**ACL(+)** -55.90 dB

**Occupied Bandwidth**

**Spectrum Emission Mask** On

**Adjacent Channel Power**

**In-Band Emission** On

**Spectrum Flatness** On

**EVM** On

**Phase Error** On

**Magnitude Error** On

**Constellation** On

**Main Screen**

**Fundamental**

**Sub Screen**

**Top**

**Home**

**Preset**

**Measuring...**

**Tx**

**Rx**

**Single**

**Continuous**

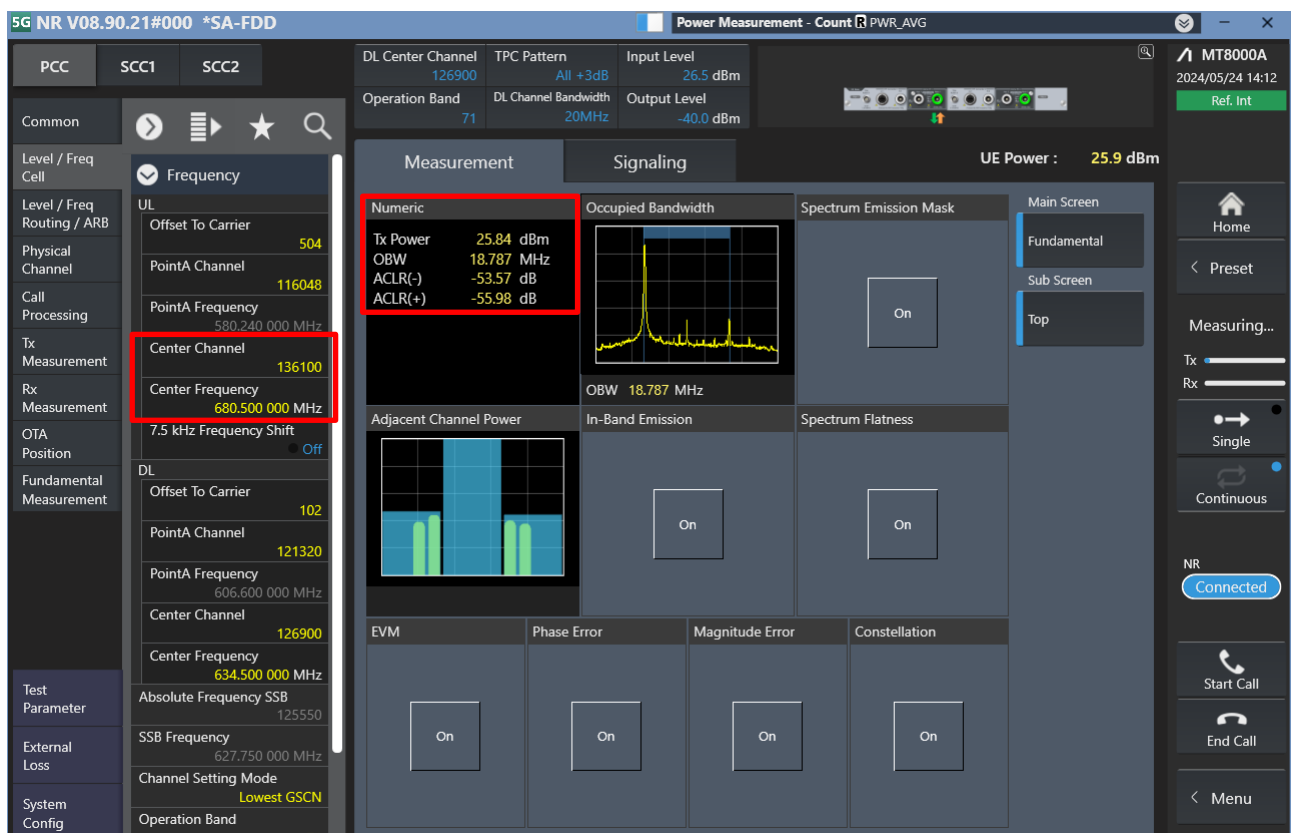
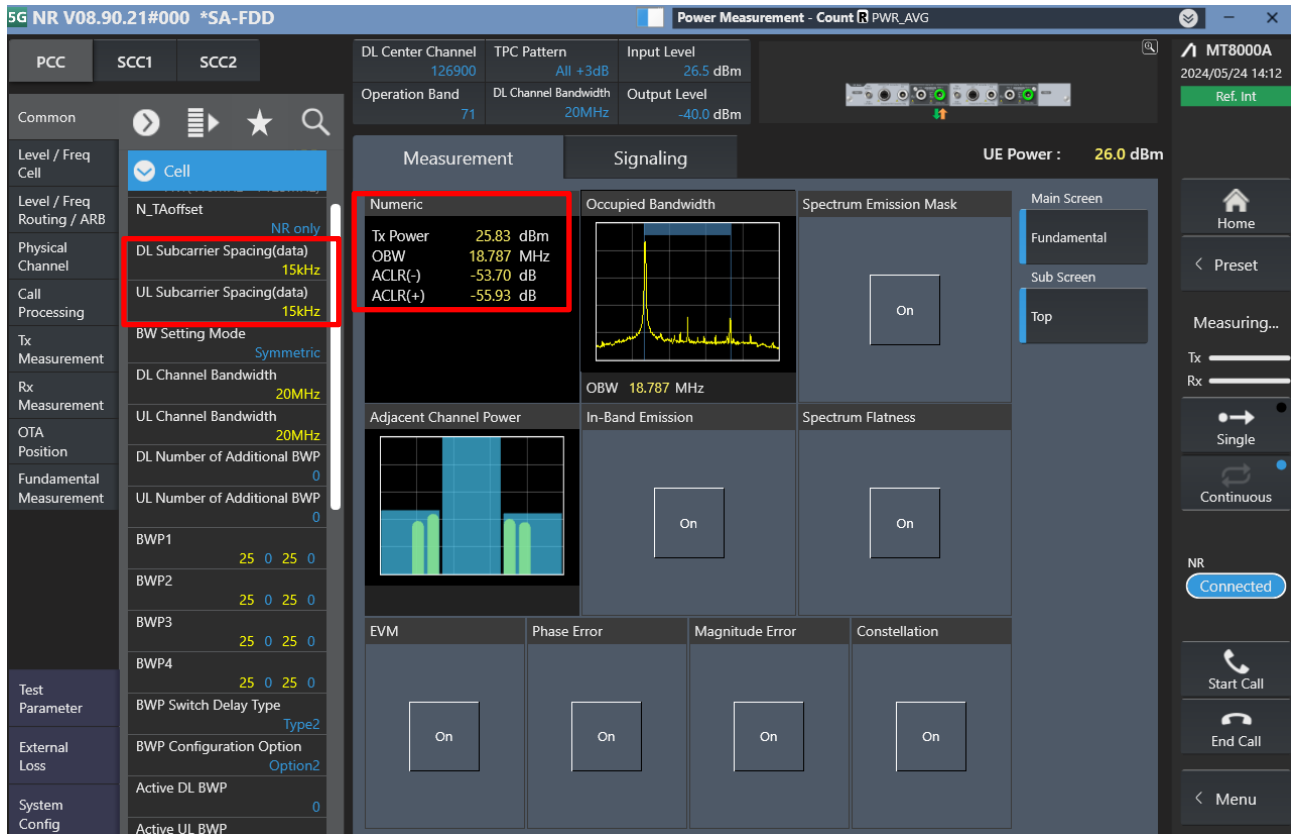
**NR**

**Connected**

**Start Call**

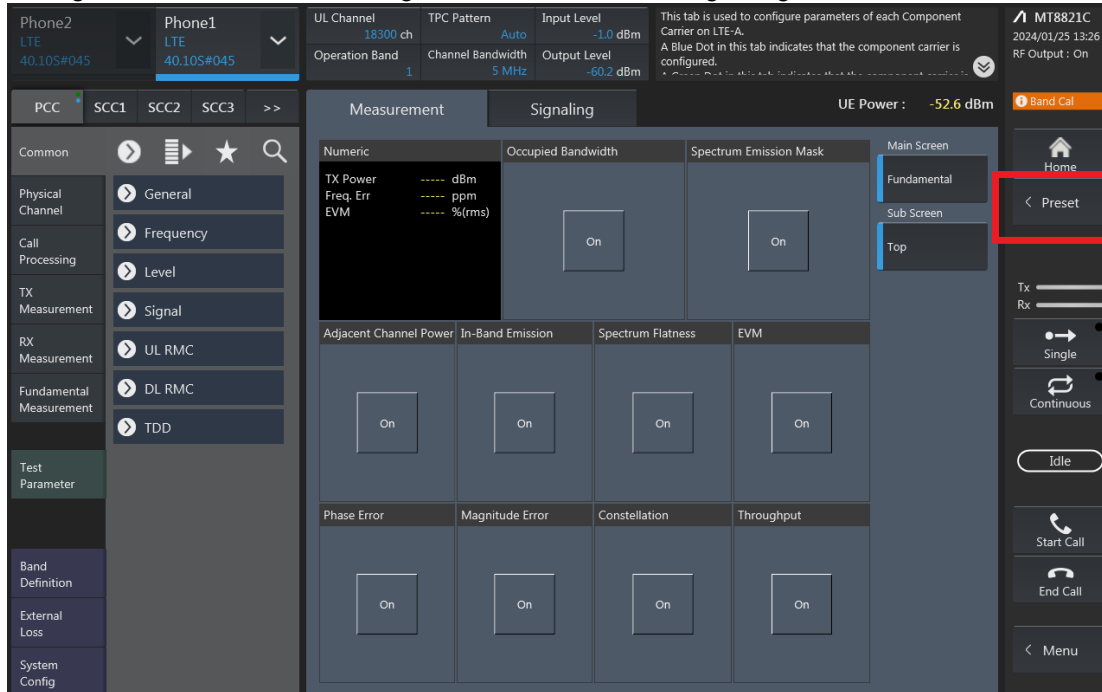
**End Call**

**Menu**



## LTE Uplink and Downlink Carrier Aggregation configurations:

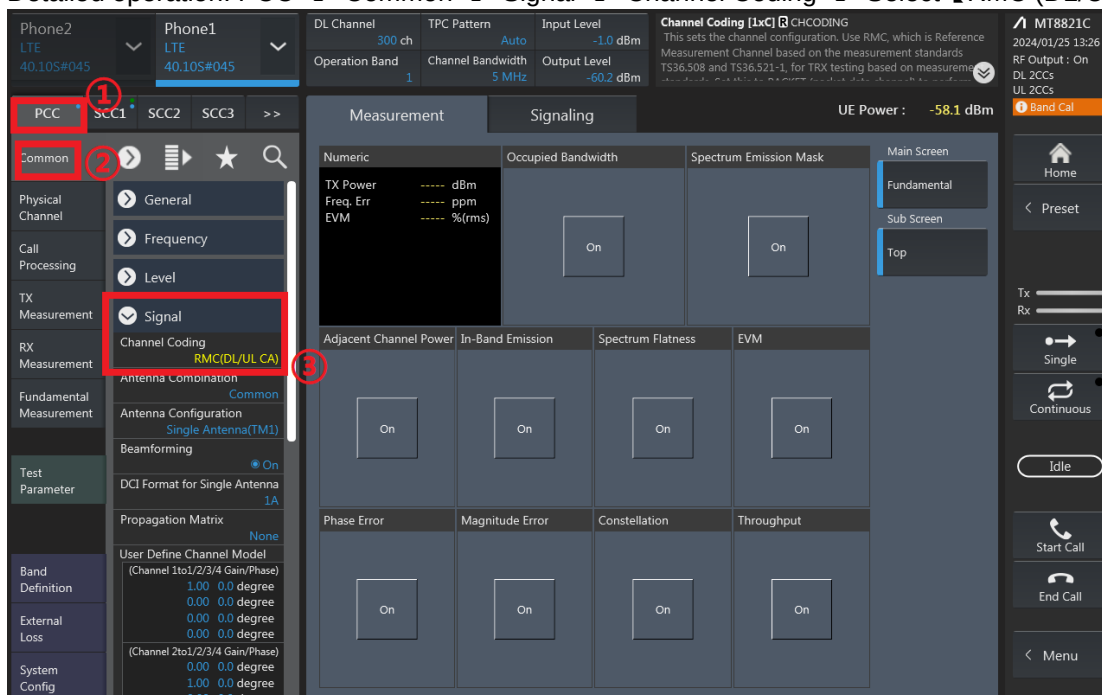
1. Change the Scenario in the Configuration of Phone1 LTE Signaling and Preset.



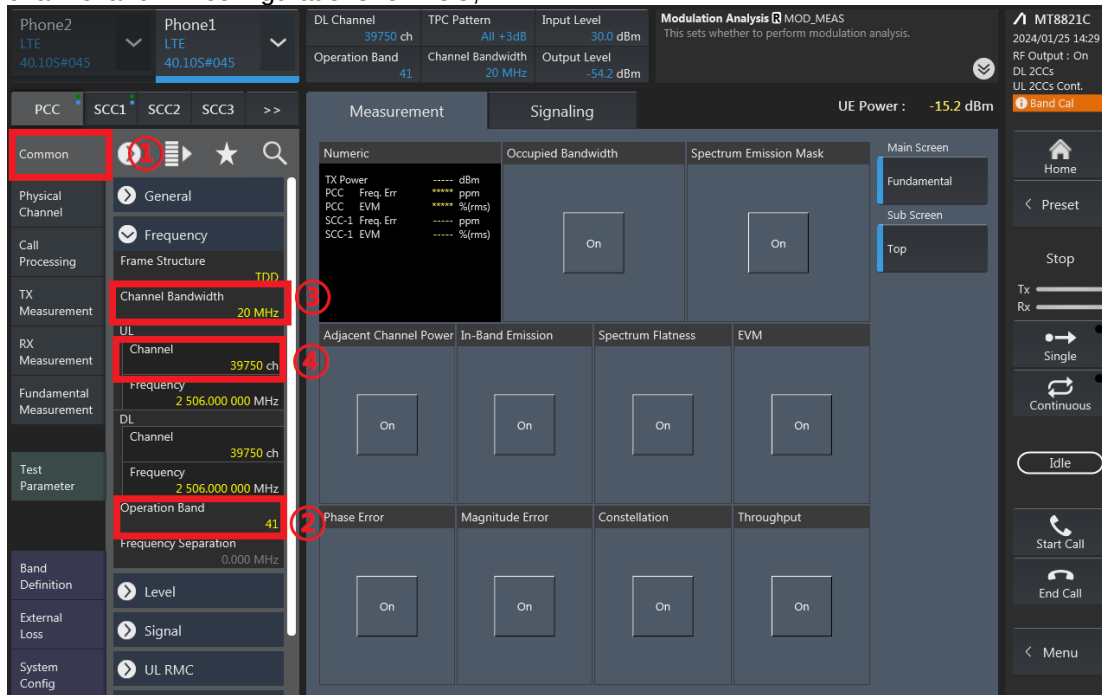
2. If Select "RMC (DL/UL CA)" for Uplink Carrier Aggregation;  
If Select "RMC (DL CA)" for Downlink Carrier Aggregation.

For example, Uplink Carrier Aggregation:

Detailed operation: PCC → Common → Signal → Channel Coding → Select 【RMC (DL/UL CA)】



3. PCC parameter Settings: on the screen, and then select the PCC tab and Set operating band, BW, channel and RB configurations for PCC;



Phone2 LTE 40.10S#045 Phone1 LTE 40.10S#045

DL Channel 39750 ch TPC Pattern All +3dB Input Level 30.0 dBm Modulation Analysis MOD\_MEAS This sets whether to perform modulation analysis.

Operation Band 41 Channel Bandwidth 20 MHz Output Level -54.2 dBm

MT8821C 2024/01/25 14:29 RF Output : On DL 2CCs UL 2CCs Cont.

PCC SCC1 SCC2 SCC3 >>

Measurement Signaling UE Power : -15.2 dBm

Common 1

Physical Channel General

Call Processing Frequency

TX Measurement Channel Bandwidth 20 MHz 3

RX Measurement Channel 39750 ch 4

Fundamental Measurement Frequency 2 506.000 000 MHz

Test Parameter Channel 39750 ch Frequency 2 506.000 000 MHz Operation Band 41 2

Frequency Separation 0.000 MHz

Band Definition Level

External Loss Signal

System Config UL RMC

Numeric Occupied Bandwidth Spectrum Emission Mask

TX Power PCC Freq. Err. dBm PCC EVM ppm PCC-1 Freq. Err. ppm PCC-1 EVM ppm

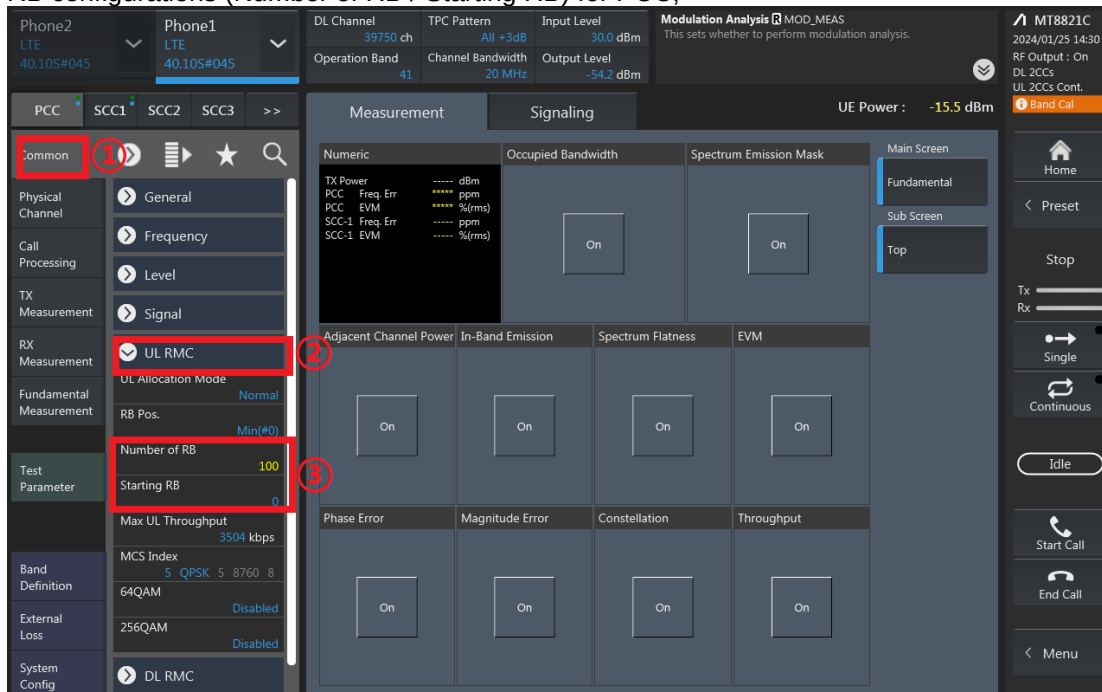
Adjacent Channel Power In-Band Emission Spectrum Flatness EVM

Phase Error Magnitude Error Constellation Throughput

Main Screen Fundamental Sub Screen Top

Home Preset Stop Tx Rx Single Continuous Idle Start Call End Call Menu

RB configurations (Number of RB / Starting RB) for PCC;



Phone2 LTE 40.10S#045 Phone1 LTE 40.10S#045

DL Channel 39750 ch TPC Pattern All +3dB Input Level 30.0 dBm Modulation Analysis MOD\_MEAS This sets whether to perform modulation analysis.

Operation Band 41 Channel Bandwidth 20 MHz Output Level -54.2 dBm

MT8821C 2024/01/25 14:30 RF Output : On DL 2CCs UL 2CCs Cont.

PCC SCC1 SCC2 SCC3 >>

Measurement Signaling UE Power : -15.5 dBm

Common 1

Physical Channel General

Call Processing Frequency

TX Measurement Level

RX Measurement Signal

Fundamental Measurement UL RMC 2

UL Allocation Mode Normal

RB Pos. Min(#0)

Test Parameter Number of RB 100 3

Starting RB 0

Max UL Throughput 3504 kbps

Band Definition MCS Index 5 QPSK 5 8760 8

External Loss 64QAM Disabled

System Config 256QAM Disabled DL RMC

Numeric Occupied Bandwidth Spectrum Emission Mask

TX Power PCC Freq. Err. dBm PCC EVM ppm PCC-1 Freq. Err. ppm PCC-1 EVM ppm

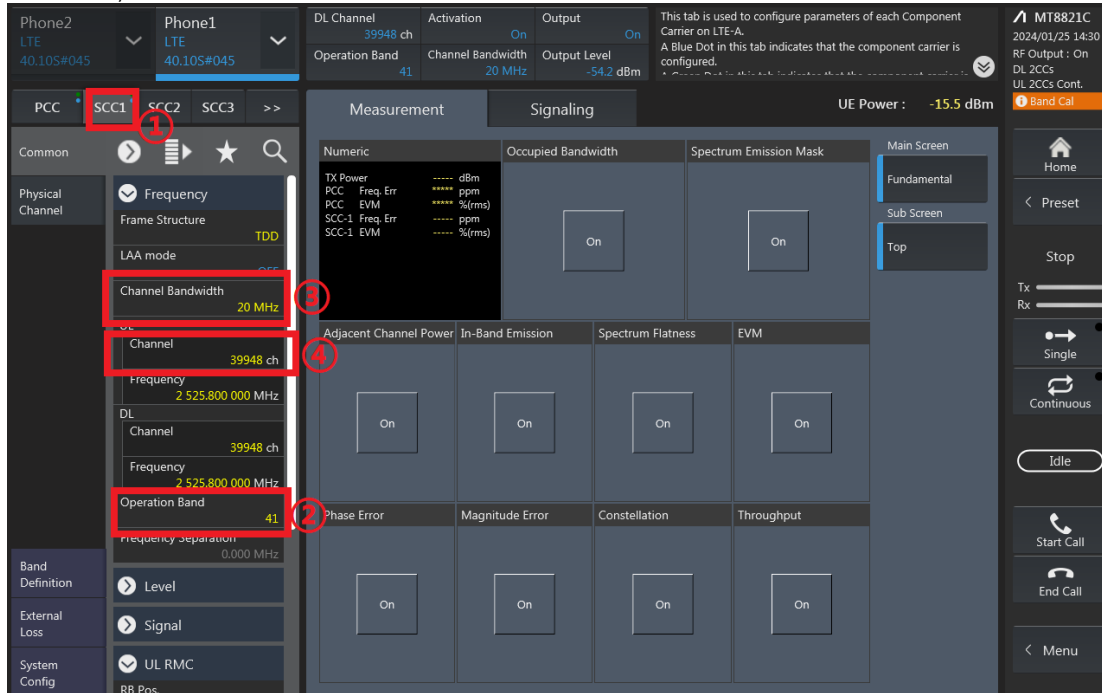
Adjacent Channel Power In-Band Emission Spectrum Flatness EVM

Phase Error Magnitude Error Constellation Throughput

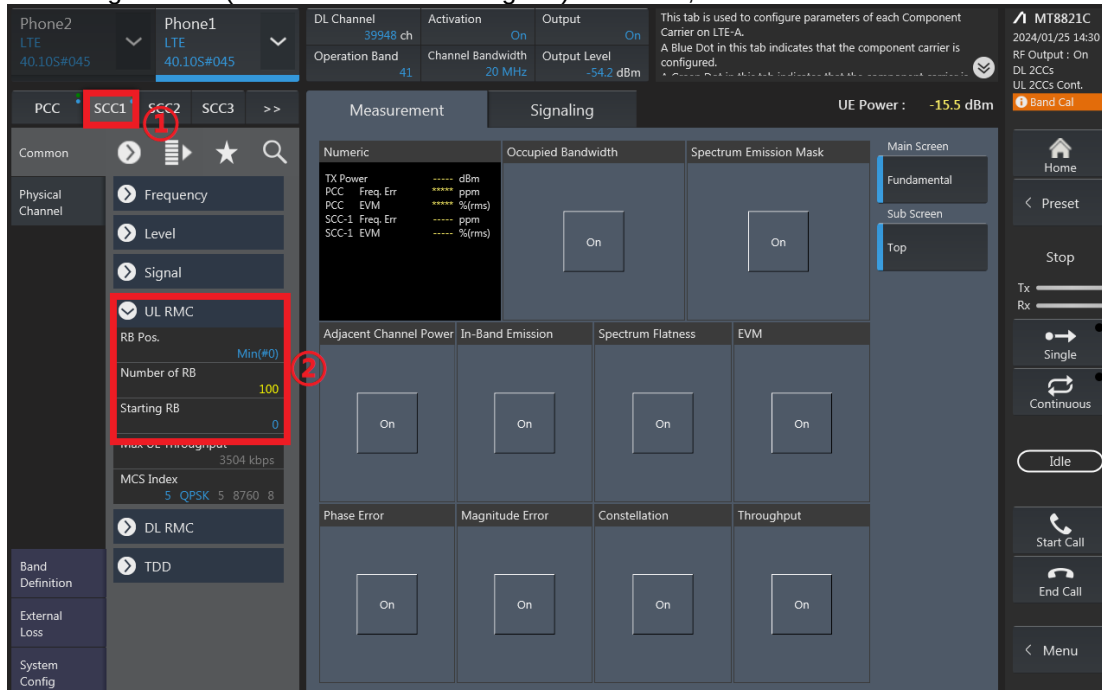
Main Screen Fundamental Sub Screen Top

Home Preset Stop Tx Rx Single Continuous Idle Start Call End Call Menu

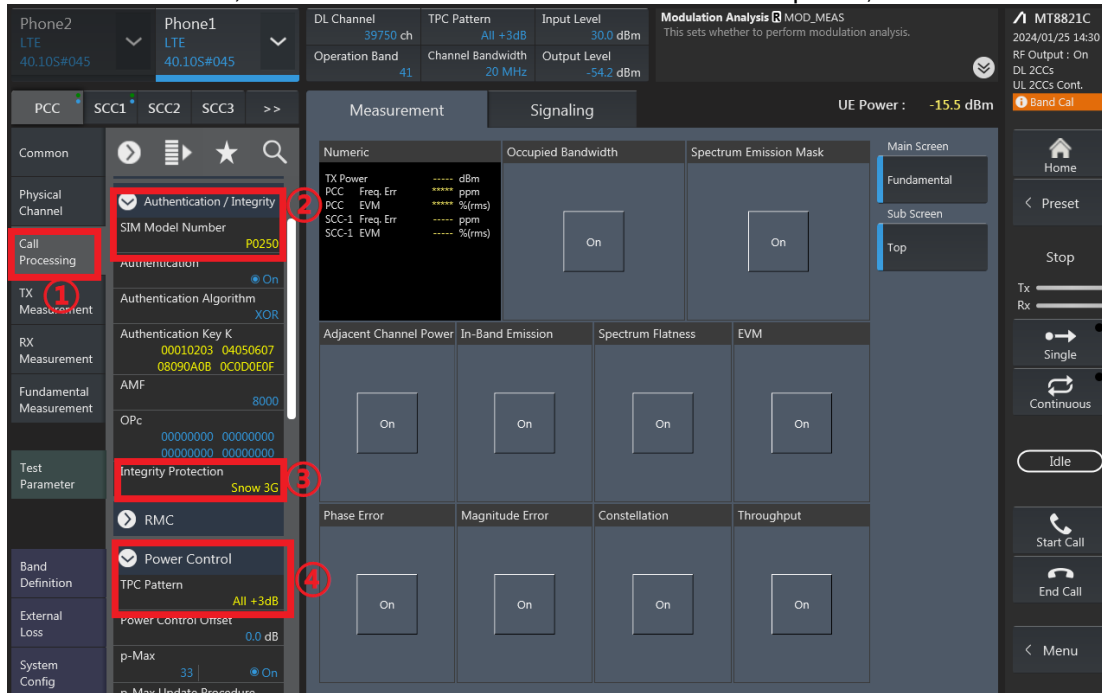
4. SCC parameter Settings: Select the SCC1 tab, Set operating band, BW, channel, and RB configurations for SCC1;



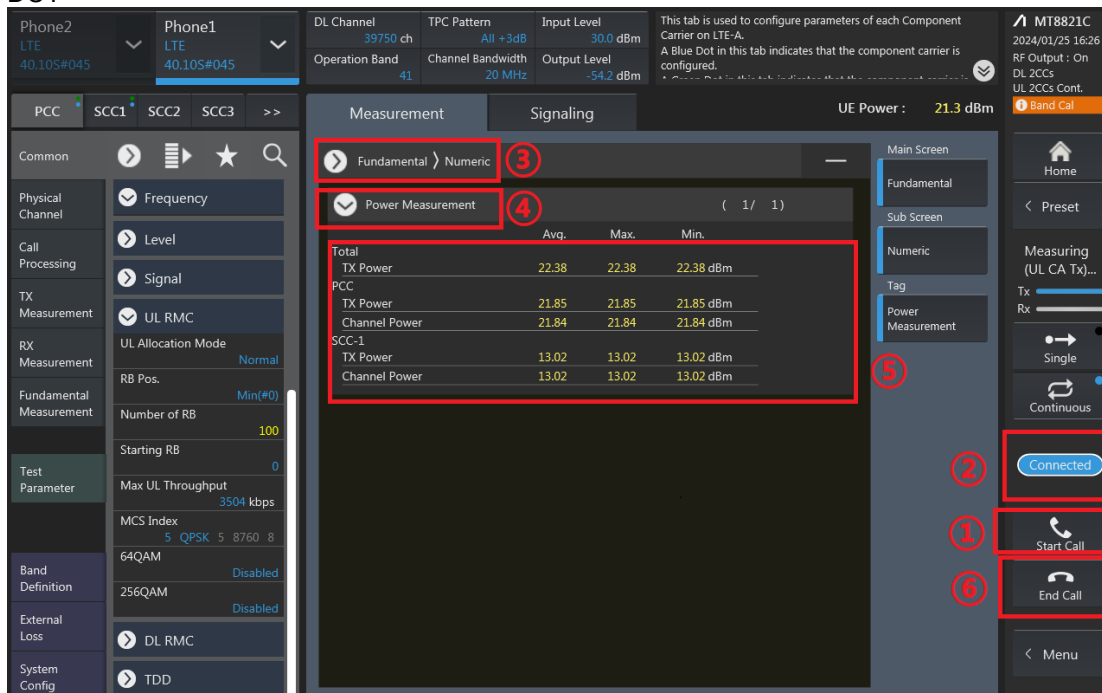
RB configurations (Number of RB / Starting RB) for SCC1;



5. Select the PCC tab, then set “SIM Model Number” and select max power;



6. Click the “Connect” button at the Right of the screen, if necessary, turn the Airplane mode on/off in the DUT



7. The inter-band ULCA test method is similar to intra-band ULCA, and DLCA test method is similar to intra-band ULCA too.

## Uplink CA Power

| CA_2C_Ant 4                           |             |            |         |           |         |           |               |                       |                 |                      |                     |
|---------------------------------------|-------------|------------|---------|-----------|---------|-----------|---------------|-----------------------|-----------------|----------------------|---------------------|
| Combination 20MHz+20MHz (100RB+100RB) |             |            |         |           |         |           |               |                       |                 |                      |                     |
| PCC Channel                           | SCC Channel | Modulation | PCC     |           | SCC     |           | Total RB Size | Target MPR Level (dB) | Power Reduction | Measured Power (dBm) | Tune up Power (dBm) |
|                                       |             |            | RB Size | RB offset | RB Size | RB offset |               |                       |                 |                      |                     |
| 18700                                 | 18898       | QPSK       | 1       | 0         | 0       | 0         | 1             | 0                     | Default         | 22.81                | 23.80               |
| 18900                                 | 19098       | QPSK       | 1       | 0         | 0       | 0         | 1             | 0                     | Default         | 22.91                | 23.80               |
| 19100                                 | 18902       | QPSK       | 1       | 0         | 0       | 0         | 1             | 0                     | Default         | 22.76                | 23.80               |
| 18700                                 | 18898       | QPSK       | 1       | 0         | 0       | 0         | 1             | 0                     | ECI 3           | 20.94                | 21.80               |
| 18900                                 | 19098       | QPSK       | 1       | 0         | 0       | 0         | 1             | 0                     | ECI 3           | 20.95                | 21.80               |
| 19100                                 | 18902       | QPSK       | 1       | 0         | 0       | 0         | 1             | 0                     | ECI 3           | 20.94                | 21.80               |
| 18700                                 | 18898       | QPSK       | 1       | 0         | 0       | 0         | 1             | 0                     | ECI 5           | 22.81                | 23.80               |
| 18900                                 | 19098       | QPSK       | 1       | 0         | 0       | 0         | 1             | 0                     | ECI 5           | 22.91                | 23.80               |
| 19100                                 | 18902       | QPSK       | 1       | 0         | 0       | 0         | 1             | 0                     | ECI 5           | 22.76                | 23.80               |
| 18700                                 | 18898       | QPSK       | 1       | 0         | 0       | 0         | 1             | 0                     | ECI 8           | 20.42                | 21.30               |
| 18900                                 | 19098       | QPSK       | 1       | 0         | 0       | 0         | 1             | 0                     | ECI 8           | 20.44                | 21.30               |
| 19100                                 | 18902       | QPSK       | 1       | 0         | 0       | 0         | 1             | 0                     | ECI 8           | 20.39                | 21.30               |
| 18700                                 | 18898       | QPSK       | 1       | 0         | 0       | 0         | 1             | 0                     | ECI 10          | 22.81                | 23.80               |
| 18900                                 | 19098       | QPSK       | 1       | 0         | 0       | 0         | 1             | 0                     | ECI 10          | 22.91                | 23.80               |
| 19100                                 | 18902       | QPSK       | 1       | 0         | 0       | 0         | 1             | 0                     | ECI 10          | 22.76                | 23.80               |
| 18700                                 | 18898       | QPSK       | 1       | 0         | 0       | 0         | 1             | 0                     | ECI 13          | 18.90                | 19.80               |
| 18900                                 | 19098       | QPSK       | 1       | 0         | 0       | 0         | 1             | 0                     | ECI 13          | 18.96                | 19.80               |
| 19100                                 | 18902       | QPSK       | 1       | 0         | 0       | 0         | 1             | 0                     | ECI 13          | 18.88                | 19.80               |
| 18700                                 | 18898       | QPSK       | 1       | 0         | 0       | 0         | 1             | 0                     | ECI 15          | 22.81                | 23.80               |
| 18900                                 | 19098       | QPSK       | 1       | 0         | 0       | 0         | 1             | 0                     | ECI 15          | 22.91                | 23.80               |
| 19100                                 | 18902       | QPSK       | 1       | 0         | 0       | 0         | 1             | 0                     | ECI 15          | 22.76                | 23.80               |

| CA_2C_Ant 3                           |             |            |         |           |         |           |               |                       |                 |                      |                     |
|---------------------------------------|-------------|------------|---------|-----------|---------|-----------|---------------|-----------------------|-----------------|----------------------|---------------------|
| Combination 20MHz+20MHz (100RB+100RB) |             |            |         |           |         |           |               |                       |                 |                      |                     |
| PCC Channel                           | SCC Channel | Modulation | PCC     |           | SCC     |           | Total RB Size | Target MPR Level (dB) | Power Reduction | Measured Power (dBm) | Tune up Power (dBm) |
|                                       |             |            | RB Size | RB offset | RB Size | RB offset |               |                       |                 |                      |                     |
| 18700                                 | 18898       | QPSK       | 1       | 0         | 0       | 0         | 1             | 0                     | Default         | 23.08                | 23.80               |
| 18900                                 | 19098       | QPSK       | 1       | 0         | 0       | 0         | 1             | 0                     | Default         | 23.19                | 23.80               |
| 19100                                 | 18902       | QPSK       | 1       | 0         | 0       | 0         | 1             | 0                     | Default         | 23.10                | 23.80               |
| 18700                                 | 18898       | QPSK       | 1       | 0         | 0       | 0         | 1             | 0                     | ECI 3           | 22.15                | 22.80               |
| 18900                                 | 19098       | QPSK       | 1       | 0         | 0       | 0         | 1             | 0                     | ECI 3           | 22.21                | 22.80               |
| 19100                                 | 18902       | QPSK       | 1       | 0         | 0       | 0         | 1             | 0                     | ECI 3           | 22.13                | 22.80               |
| 18700                                 | 18898       | QPSK       | 1       | 0         | 0       | 0         | 1             | 0                     | ECI 5           | 18.58                | 19.30               |
| 18900                                 | 19098       | QPSK       | 1       | 0         | 0       | 0         | 1             | 0                     | ECI 5           | 18.68                | 19.30               |
| 19100                                 | 18902       | QPSK       | 1       | 0         | 0       | 0         | 1             | 0                     | ECI 5           | 18.57                | 19.30               |
| 18700                                 | 18898       | QPSK       | 1       | 0         | 0       | 0         | 1             | 0                     | ECI 8           | 21.64                | 22.30               |
| 18900                                 | 19098       | QPSK       | 1       | 0         | 0       | 0         | 1             | 0                     | ECI 8           | 21.71                | 22.30               |
| 19100                                 | 18902       | QPSK       | 1       | 0         | 0       | 0         | 1             | 0                     | ECI 8           | 21.66                | 22.30               |
| 18700                                 | 18898       | QPSK       | 1       | 0         | 0       | 0         | 1             | 0                     | ECI 10          | 18.16                | 18.80               |
| 18900                                 | 19098       | QPSK       | 1       | 0         | 0       | 0         | 1             | 0                     | ECI 10          | 18.23                | 18.80               |
| 19100                                 | 18902       | QPSK       | 1       | 0         | 0       | 0         | 1             | 0                     | ECI 10          | 18.12                | 18.80               |
| 18700                                 | 18898       | QPSK       | 1       | 0         | 0       | 0         | 1             | 0                     | ECI 13          | 20.17                | 20.80               |
| 18900                                 | 19098       | QPSK       | 1       | 0         | 0       | 0         | 1             | 0                     | ECI 13          | 20.22                | 20.80               |
| 19100                                 | 18902       | QPSK       | 1       | 0         | 0       | 0         | 1             | 0                     | ECI 13          | 20.17                | 20.80               |
| 18700                                 | 18898       | QPSK       | 1       | 0         | 0       | 0         | 1             | 0                     | ECI 15          | 16.56                | 17.30               |
| 18900                                 | 19098       | QPSK       | 1       | 0         | 0       | 0         | 1             | 0                     | ECI 15          | 16.71                | 17.30               |
| 19100                                 | 18902       | QPSK       | 1       | 0         | 0       | 0         | 1             | 0                     | ECI 15          | 16.69                | 17.30               |

| CA_7C_Ant 4                           |             |            |         |           |         |           |               |                       |                 |                      |                     |
|---------------------------------------|-------------|------------|---------|-----------|---------|-----------|---------------|-----------------------|-----------------|----------------------|---------------------|
| Combination 20MHz+20MHz (100RB+100RB) |             |            |         |           |         |           |               |                       |                 |                      |                     |
| PCC Channel                           | SCC Channel | Modulation | PCC     |           | SCC     |           | Total RB Size | Target MPR Level (dB) | Power Reduction | Measured Power (dBm) | Tune up Power (dBm) |
|                                       |             |            | RB Size | RB offset | RB Size | RB offset |               |                       |                 |                      |                     |
| 20850                                 | 21048       | QPSK       | 1       | 0         | 0       | 0         | 1             | 0                     | Default         | 23.15                | 23.80               |
| 21100                                 | 21298       | QPSK       | 1       | 0         | 0       | 0         | 1             | 0                     | Default         | 23.22                | 23.80               |
| 21350                                 | 21152       | QPSK       | 1       | 0         | 0       | 0         | 1             | 0                     | Default         | 23.12                | 23.80               |
| 20850                                 | 21048       | QPSK       | 1       | 0         | 0       | 0         | 1             | 0                     | ECI 3           | 20.80                | 21.30               |
| 21100                                 | 21298       | QPSK       | 1       | 0         | 0       | 0         | 1             | 0                     | ECI 3           | 20.83                | 21.30               |
| 21350                                 | 21152       | QPSK       | 1       | 0         | 0       | 0         | 1             | 0                     | ECI 3           | 20.81                | 21.30               |
| 20850                                 | 21048       | QPSK       | 1       | 0         | 0       | 0         | 1             | 0                     | ECI 5           | 23.15                | 23.80               |
| 21100                                 | 21298       | QPSK       | 1       | 0         | 0       | 0         | 1             | 0                     | ECI 5           | 23.22                | 23.80               |
| 21350                                 | 21152       | QPSK       | 1       | 0         | 0       | 0         | 1             | 0                     | ECI 5           | 23.12                | 23.80               |
| 20850                                 | 21048       | QPSK       | 1       | 0         | 0       | 0         | 1             | 0                     | ECI 8           | 18.65                | 19.30               |
| 21100                                 | 21298       | QPSK       | 1       | 0         | 0       | 0         | 1             | 0                     | ECI 8           | 18.78                | 19.30               |
| 21350                                 | 21152       | QPSK       | 1       | 0         | 0       | 0         | 1             | 0                     | ECI 8           | 18.65                | 19.30               |
| 20850                                 | 21048       | QPSK       | 1       | 0         | 0       | 0         | 1             | 0                     | ECI 10          | 23.15                | 23.80               |
| 21100                                 | 21298       | QPSK       | 1       | 0         | 0       | 0         | 1             | 0                     | ECI 10          | 23.22                | 23.80               |
| 21350                                 | 21152       | QPSK       | 1       | 0         | 0       | 0         | 1             | 0                     | ECI 10          | 23.12                | 23.80               |
| 20850                                 | 21048       | QPSK       | 1       | 0         | 0       | 0         | 1             | 0                     | ECI 13          | 18.65                | 19.30               |
| 21100                                 | 21298       | QPSK       | 1       | 0         | 0       | 0         | 1             | 0                     | ECI 13          | 18.78                | 19.30               |
| 21350                                 | 21152       | QPSK       | 1       | 0         | 0       | 0         | 1             | 0                     | ECI 13          | 18.65                | 19.30               |
| 20850                                 | 21048       | QPSK       | 1       | 0         | 0       | 0         | 1             | 0                     | ECI 15          | 23.15                | 23.80               |
| 21100                                 | 21298       | QPSK       | 1       | 0         | 0       | 0         | 1             | 0                     | ECI 15          | 23.22                | 23.80               |
| 21350                                 | 21152       | QPSK       | 1       | 0         | 0       | 0         | 1             | 0                     | ECI 15          | 23.12                | 23.80               |

| CA_7C_Ant 3                           |             |            |         |           |         |           |               |                       |                 |                      |                     |
|---------------------------------------|-------------|------------|---------|-----------|---------|-----------|---------------|-----------------------|-----------------|----------------------|---------------------|
| Combination 20MHz+20MHz (100RB+100RB) |             |            |         |           |         |           |               |                       |                 |                      |                     |
| PCC Channel                           | SCC Channel | Modulation | PCC     |           | SCC     |           | Total RB Size | Target MPR Level (dB) | Power Reduction | Measured Power (dBm) | Tune up Power (dBm) |
|                                       |             |            | RB Size | RB offset | RB Size | RB offset |               |                       |                 |                      |                     |
| 20850                                 | 21048       | QPSK       | 1       | 0         | 0       | 0         | 1             | 0                     | Default         | 23.28                | 23.80               |
| 21100                                 | 21298       | QPSK       | 1       | 0         | 0       | 0         | 1             | 0                     | Default         | 23.35                | 23.80               |
| 21350                                 | 21152       | QPSK       | 1       | 0         | 0       | 0         | 1             | 0                     | Default         | 23.27                | 23.80               |
| 20850                                 | 21048       | QPSK       | 1       | 0         | 0       | 0         | 1             | 0                     | ECI 3           | 21.84                | 22.30               |
| 21100                                 | 21298       | QPSK       | 1       | 0         | 0       | 0         | 1             | 0                     | ECI 3           | 21.87                | 22.30               |
| 21350                                 | 21152       | QPSK       | 1       | 0         | 0       | 0         | 1             | 0                     | ECI 3           | 21.80                | 22.30               |
| 20850                                 | 21048       | QPSK       | 1       | 0         | 0       | 0         | 1             | 0                     | ECI 5           | 15.78                | 16.30               |
| 21100                                 | 21298       | QPSK       | 1       | 0         | 0       | 0         | 1             | 0                     | ECI 5           | 15.81                | 16.30               |
| 21350                                 | 21152       | QPSK       | 1       | 0         | 0       | 0         | 1             | 0                     | ECI 5           | 15.66                | 16.30               |
| 20850                                 | 21048       | QPSK       | 1       | 0         | 0       | 0         | 1             | 0                     | ECI 8           | 19.86                | 20.30               |
| 21100                                 | 21298       | QPSK       | 1       | 0         | 0       | 0         | 1             | 0                     | ECI 8           | 19.88                | 20.30               |
| 21350                                 | 21152       | QPSK       | 1       | 0         | 0       | 0         | 1             | 0                     | ECI 8           | 19.85                | 20.30               |
| 20850                                 | 21048       | QPSK       | 1       | 0         | 0       | 0         | 1             | 0                     | ECI 10          | 15.78                | 16.30               |
| 21100                                 | 21298       | QPSK       | 1       | 0         | 0       | 0         | 1             | 0                     | ECI 10          | 15.81                | 16.30               |
| 21350                                 | 21152       | QPSK       | 1       | 0         | 0       | 0         | 1             | 0                     | ECI 10          | 15.66                | 16.30               |
| 20850                                 | 21048       | QPSK       | 1       | 0         | 0       | 0         | 1             | 0                     | ECI 13          | 19.86                | 20.30               |
| 21100                                 | 21298       | QPSK       | 1       | 0         | 0       | 0         | 1             | 0                     | ECI 13          | 19.88                | 20.30               |
| 21350                                 | 21152       | QPSK       | 1       | 0         | 0       | 0         | 1             | 0                     | ECI 13          | 19.85                | 20.30               |
| 20850                                 | 21048       | QPSK       | 1       | 0         | 0       | 0         | 1             | 0                     | ECI 15          | 13.78                | 14.30               |
| 21100                                 | 21298       | QPSK       | 1       | 0         | 0       | 0         | 1             | 0                     | ECI 15          | 13.88                | 14.30               |
| 21350                                 | 21152       | QPSK       | 1       | 0         | 0       | 0         | 1             | 0                     | ECI 15          | 13.87                | 14.30               |

| CA 7C Ant 5                           |             |            |         |           |         |           |               |                       |                 |                      |                     |
|---------------------------------------|-------------|------------|---------|-----------|---------|-----------|---------------|-----------------------|-----------------|----------------------|---------------------|
| Combination 20MHz+20MHz (100RB+100RB) |             |            |         |           |         |           |               |                       |                 |                      |                     |
| PCC Channel                           | SCC Channel | Modulation | PCC     |           | SCC     |           | Total RB Size | Target MPR Level (dB) | Power Reduction | Measured Power (dBm) | Tune up Power (dBm) |
|                                       |             |            | RB Size | RB offset | RB Size | RB offset |               |                       |                 |                      |                     |
| 20850                                 | 21048       | QPSK       | 1       | 0         | 0       | 0         | 1             | 0                     | Default         | 20.04                | 20.80               |
| 21100                                 | 21298       | QPSK       | 1       | 0         | 0       | 0         | 1             | 0                     | Default         | 20.10                | 20.80               |
| 21350                                 | 21152       | QPSK       | 1       | 0         | 0       | 0         | 1             | 0                     | Default         | 20.00                | 20.80               |
| 20850                                 | 21048       | QPSK       | 1       | 0         | 0       | 0         | 1             | 0                     | ECI 3           | 20.04                | 20.80               |
| 21100                                 | 21298       | QPSK       | 1       | 0         | 0       | 0         | 1             | 0                     | ECI 3           | 20.10                | 20.80               |
| 21350                                 | 21152       | QPSK       | 1       | 0         | 0       | 0         | 1             | 0                     | ECI 3           | 20.00                | 20.80               |
| 20850                                 | 21048       | QPSK       | 1       | 0         | 0       | 0         | 1             | 0                     | ECI 5           | 19.49                | 19.30               |
| 21100                                 | 21298       | QPSK       | 1       | 0         | 0       | 0         | 1             | 0                     | ECI 5           | 19.60                | 19.30               |
| 21350                                 | 21152       | QPSK       | 1       | 0         | 0       | 0         | 1             | 0                     | ECI 5           | 19.48                | 19.30               |
| 20850                                 | 21048       | QPSK       | 1       | 0         | 0       | 0         | 1             | 0                     | ECI 8           | 19.03                | 19.80               |
| 21100                                 | 21298       | QPSK       | 1       | 0         | 0       | 0         | 1             | 0                     | ECI 8           | 19.10                | 19.80               |
| 21350                                 | 21152       | QPSK       | 1       | 0         | 0       | 0         | 1             | 0                     | ECI 8           | 18.91                | 19.80               |
| 20850                                 | 21048       | QPSK       | 1       | 0         | 0       | 0         | 1             | 0                     | ECI 10          | 18.05                | 18.80               |
| 21100                                 | 21298       | QPSK       | 1       | 0         | 0       | 0         | 1             | 0                     | ECI 10          | 18.01                | 18.80               |
| 21350                                 | 21152       | QPSK       | 1       | 0         | 0       | 0         | 1             | 0                     | ECI 10          | 17.91                | 18.80               |
| 20850                                 | 21048       | QPSK       | 1       | 0         | 0       | 0         | 1             | 0                     | ECI 13          | 19.03                | 19.80               |
| 21100                                 | 21298       | QPSK       | 1       | 0         | 0       | 0         | 1             | 0                     | ECI 13          | 19.10                | 19.80               |
| 21350                                 | 21152       | QPSK       | 1       | 0         | 0       | 0         | 1             | 0                     | ECI 13          | 18.91                | 19.80               |
| 20850                                 | 21048       | QPSK       | 1       | 0         | 0       | 0         | 1             | 0                     | ECI 15          | 16.54                | 17.30               |
| 21100                                 | 21298       | QPSK       | 1       | 0         | 0       | 0         | 1             | 0                     | ECI 15          | 16.62                | 17.30               |
| 21350                                 | 21152       | QPSK       | 1       | 0         | 0       | 0         | 1             | 0                     | ECI 15          | 16.42                | 17.30               |

| CA_38C_Ant 4                          |             |            |         |           |         |           |               |                       |                 |                      |                     |
|---------------------------------------|-------------|------------|---------|-----------|---------|-----------|---------------|-----------------------|-----------------|----------------------|---------------------|
| Combination 20MHz+20MHz (100RB+100RB) |             |            |         |           |         |           |               |                       |                 |                      |                     |
| PCC Channel                           | SCC Channel | Modulation | PCC     |           | SCC     |           | Total RB Size | Target MPR Level (dB) | Power Reduction | Measured Power (dBm) | Tune up Power (dBm) |
|                                       |             |            | RB Size | RB offset | RB Size | RB offset |               |                       |                 |                      |                     |
| 37850                                 | 38048       | QPSK       | 1       | 0         | 0       | 0         | 1             | 0                     | Default         | 23.23                | 23.80               |
| 37901                                 | 38099       | QPSK       | 1       | 0         | 0       | 0         | 1             | 0                     | Default         | 23.31                | 23.80               |
| 38150                                 | 37952       | QPSK       | 1       | 0         | 0       | 0         | 1             | 0                     | Default         | 23.25                | 23.80               |
| 37850                                 | 38048       | QPSK       | 1       | 0         | 0       | 0         | 1             | 0                     | ECI 3           | 22.20                | 22.80               |
| 37901                                 | 38099       | QPSK       | 1       | 0         | 0       | 0         | 1             | 0                     | ECI 3           | 22.33                | 22.80               |
| 38150                                 | 37952       | QPSK       | 1       | 0         | 0       | 0         | 1             | 0                     | ECI 3           | 22.26                | 22.80               |
| 37850                                 | 38048       | QPSK       | 1       | 0         | 0       | 0         | 1             | 0                     | ECI 5           | 23.23                | 23.80               |
| 37901                                 | 38099       | QPSK       | 1       | 0         | 0       | 0         | 1             | 0                     | ECI 5           | 23.31                | 23.80               |
| 38150                                 | 37952       | QPSK       | 1       | 0         | 0       | 0         | 1             | 0                     | ECI 5           | 23.25                | 23.80               |
| 37850                                 | 38048       | QPSK       | 1       | 0         | 0       | 0         | 1             | 0                     | ECI 8           | 20.60                | 21.30               |
| 37901                                 | 38099       | QPSK       | 1       | 0         | 0       | 0         | 1             | 0                     | ECI 8           | 20.72                | 21.30               |
| 38150                                 | 37952       | QPSK       | 1       | 0         | 0       | 0         | 1             | 0                     | ECI 8           | 20.60                | 21.30               |
| 37850                                 | 38048       | QPSK       | 1       | 0         | 0       | 0         | 1             | 0                     | ECI 10          | 23.23                | 23.80               |
| 37901                                 | 38099       | QPSK       | 1       | 0         | 0       | 0         | 1             | 0                     | ECI 10          | 23.31                | 23.80               |
| 38150                                 | 37952       | QPSK       | 1       | 0         | 0       | 0         | 1             | 0                     | ECI 10          | 23.25                | 23.80               |
| 37850                                 | 38048       | QPSK       | 1       | 0         | 0       | 0         | 1             | 0                     | ECI 13          | 20.23                | 20.80               |
| 37901                                 | 38099       | QPSK       | 1       | 0         | 0       | 0         | 1             | 0                     | ECI 13          | 20.28                | 20.80               |
| 38150                                 | 37952       | QPSK       | 1       | 0         | 0       | 0         | 1             | 0                     | ECI 13          | 20.18                | 20.80               |
| 37850                                 | 38048       | QPSK       | 1       | 0         | 0       | 0         | 1             | 0                     | ECI 15          | 23.23                | 23.80               |
| 37901                                 | 38099       | QPSK       | 1       | 0         | 0       | 0         | 1             | 0                     | ECI 15          | 23.31                | 23.80               |
| 38150                                 | 37952       | QPSK       | 1       | 0         | 0       | 0         | 1             | 0                     | ECI 15          | 23.25                | 23.80               |

| CA 38C Ant 3                          |             |            |         |           |         |           |               |                       |                 |                      |                     |
|---------------------------------------|-------------|------------|---------|-----------|---------|-----------|---------------|-----------------------|-----------------|----------------------|---------------------|
| Combination 20MHz+20MHz (100RB+100RB) |             |            |         |           |         |           |               |                       |                 |                      |                     |
| PCC Channel                           | SCC Channel | Modulation | PCC     |           | SCC     |           | Total RB Size | Target MPR Level (dB) | Power Reduction | Measured Power (dBm) | Tune up Power (dBm) |
|                                       |             |            | RB Size | RB offset | RB Size | RB offset |               |                       |                 |                      |                     |
| 37850                                 | 38048       | QPSK       | 1       | 0         | 0       | 0         | 1             | 0                     | Default         | 23.43                | 23.80               |
| 37901                                 | 38099       | QPSK       | 1       | 0         | 0       | 0         | 1             | 0                     | Default         | 23.49                | 23.80               |
| 38150                                 | 37952       | QPSK       | 1       | 0         | 0       | 0         | 1             | 0                     | Default         | 23.34                | 23.80               |
| 37850                                 | 38048       | QPSK       | 1       | 0         | 0       | 0         | 1             | 0                     | ECI 3           | 23.43                | 23.80               |
| 37901                                 | 38099       | QPSK       | 1       | 0         | 0       | 0         | 1             | 0                     | ECI 3           | 23.49                | 23.80               |
| 38150                                 | 37952       | QPSK       | 1       | 0         | 0       | 0         | 1             | 0                     | ECI 3           | 23.34                | 23.80               |
| 37850                                 | 38048       | QPSK       | 1       | 0         | 0       | 0         | 1             | 0                     | ECI 5           | 16.69                | 17.30               |
| 37901                                 | 38099       | QPSK       | 1       | 0         | 0       | 0         | 1             | 0                     | ECI 5           | 16.82                | 17.30               |
| 38150                                 | 37952       | QPSK       | 1       | 0         | 0       | 0         | 1             | 0                     | ECI 5           | 16.76                | 17.30               |
| 37850                                 | 38048       | QPSK       | 1       | 0         | 0       | 0         | 1             | 0                     | ECI 8           | 22.33                | 22.80               |
| 37901                                 | 38099       | QPSK       | 1       | 0         | 0       | 0         | 1             | 0                     | ECI 8           | 22.38                | 22.80               |
| 38150                                 | 37952       | QPSK       | 1       | 0         | 0       | 0         | 1             | 0                     | ECI 8           | 22.32                | 22.80               |
| 37850                                 | 38048       | QPSK       | 1       | 0         | 0       | 0         | 1             | 0                     | ECI 10          | 16.32                | 16.80               |
| 37901                                 | 38099       | QPSK       | 1       | 0         | 0       | 0         | 1             | 0                     | ECI 10          | 16.33                | 16.80               |
| 38150                                 | 37952       | QPSK       | 1       | 0         | 0       | 0         | 1             | 0                     | ECI 10          | 16.20                | 16.80               |
| 37850                                 | 38048       | QPSK       | 1       | 0         | 0       | 0         | 1             | 0                     | ECI 13          | 22.33                | 22.80               |
| 37901                                 | 38099       | QPSK       | 1       | 0         | 0       | 0         | 1             | 0                     | ECI 13          | 22.38                | 22.80               |
| 38150                                 | 37952       | QPSK       | 1       | 0         | 0       | 0         | 1             | 0                     | ECI 13          | 22.32                | 22.80               |
| 37850                                 | 38048       | QPSK       | 1       | 0         | 0       | 0         | 1             | 0                     | ECI 15          | 14.74                | 15.30               |
| 37901                                 | 38099       | QPSK       | 1       | 0         | 0       | 0         | 1             | 0                     | ECI 15          | 14.81                | 15.30               |
| 38150                                 | 37952       | QPSK       | 1       | 0         | 0       | 0         | 1             | 0                     | ECI 15          | 14.79                | 15.30               |

| CA 38C Ant 5                          |             |            |         |           |         |           |               |                       |                 |                      |                     |
|---------------------------------------|-------------|------------|---------|-----------|---------|-----------|---------------|-----------------------|-----------------|----------------------|---------------------|
| Combination 20MHz+20MHz (100RB+100RB) |             |            |         |           |         |           |               |                       |                 |                      |                     |
| PCC Channel                           | SCC Channel | Modulation | PCC     |           | SCC     |           | Total RB Size | Target MPR Level (dB) | Power Reduction | Measured Power (dBm) | Tune up Power (dBm) |
|                                       |             |            | RB Size | RB offset | RB Size | RB offset |               |                       |                 |                      |                     |
| 37850                                 | 38048       | QPSK       | 1       | 0         | 0       | 0         | 1             | 0                     | Default         | 20.10                | 20.80               |
| 37901                                 | 38099       | QPSK       | 1       | 0         | 0       | 0         | 1             | 0                     | Default         | 20.24                | 20.80               |
| 38150                                 | 37952       | QPSK       | 1       | 0         | 0       | 0         | 1             | 0                     | Default         | 20.10                | 20.80               |
| 37850                                 | 38048       | QPSK       | 1       | 0         | 0       | 0         | 1             | 0                     | ECI 3           | 20.10                | 20.80               |
| 37901                                 | 38099       | QPSK       | 1       | 0         | 0       | 0         | 1             | 0                     | ECI 3           | 20.24                | 20.80               |
| 38150                                 | 37952       | QPSK       | 1       | 0         | 0       | 0         | 1             | 0                     | ECI 3           | 20.10                | 20.80               |
| 37850                                 | 38048       | QPSK       | 1       | 0         | 0       | 0         | 1             | 0                     | ECI 5           | 20.10                | 20.80               |
| 37901                                 | 38099       | QPSK       | 1       | 0         | 0       | 0         | 1             | 0                     | ECI 5           | 20.24                | 20.80               |
| 38150                                 | 37952       | QPSK       | 1       | 0         | 0       | 0         | 1             | 0                     | ECI 5           | 20.10                | 20.80               |
| 37850                                 | 38048       | QPSK       | 1       | 0         | 0       | 0         | 1             | 0                     | ECI 8           | 20.10                | 20.80               |
| 37901                                 | 38099       | QPSK       | 1       | 0         | 0       | 0         | 1             | 0                     | ECI 8           | 20.24                | 20.80               |
| 38150                                 | 37952       | QPSK       | 1       | 0         | 0       | 0         | 1             | 0                     | ECI 8           | 20.10                | 20.80               |
| 37850                                 | 38048       | QPSK       | 1       | 0         | 0       | 0         | 1             | 0                     | ECI 10          | 20.10                | 20.80               |
| 37901                                 | 38099       | QPSK       | 1       | 0         | 0       | 0         | 1             | 0                     | ECI 10          | 20.24                | 20.80               |
| 38150                                 | 37952       | QPSK       | 1       | 0         | 0       | 0         | 1             | 0                     | ECI 10          | 20.10                | 20.80               |
| 37850                                 | 38048       | QPSK       | 1       | 0         | 0       | 0         | 1             | 0                     | ECI 13          | 20.10                | 20.80               |
| 37901                                 | 38099       | QPSK       | 1       | 0         | 0       | 0         | 1             | 0                     | ECI 13          | 20.24                | 20.80               |
| 38150                                 | 37952       | QPSK       | 1       | 0         | 0       | 0         | 1             | 0                     | ECI 13          | 20.10                | 20.80               |
| 37850                                 | 38048       | QPSK       | 1       | 0         | 0       | 0         | 1             | 0                     | ECI 15          | 19.13                | 19.80               |
| 37901                                 | 38099       | QPSK       | 1       | 0         | 0       | 0         | 1             | 0                     | ECI 15          | 19.16                | 19.80               |
| 38150                                 | 37952       | QPSK       | 1       | 0         | 0       | 0         | 1             | 0                     | ECI 15          | 19.10                | 19.80               |

| CA 41C Ant 4                          |             |            |         |           |         |           |               |                       |                 |                      |                     |
|---------------------------------------|-------------|------------|---------|-----------|---------|-----------|---------------|-----------------------|-----------------|----------------------|---------------------|
| Combination 20MHz+20MHz (100RB+100RB) |             |            |         |           |         |           |               |                       |                 |                      |                     |
| PCC Channel                           | SCC Channel | Modulation | PCC     |           | SCC     |           | Total RB Size | Target MPR Level (dB) | Power Reduction | Measured Power (dBm) | Tune up Power (dBm) |
|                                       |             |            | RB Size | RB offset | RB Size | RB offset |               |                       |                 |                      |                     |
| 39750                                 | 39948       | QPSK       | 1       | 0         | 0       | 0         | 1             | 0                     | Default         | 23.54                | 23.80               |
| 40185                                 | 40383       | QPSK       | 1       | 0         | 0       | 0         | 1             | 0                     | Default         | 23.42                | 23.80               |
| 40620                                 | 40818       | QPSK       | 1       | 0         | 0       | 0         | 1             | 0                     | Default         | 23.41                | 23.80               |
| 41055                                 | 41253       | QPSK       | 1       | 0         | 0       | 0         | 1             | 0                     | Default         | 23.44                | 23.80               |
| 41490                                 | 41292       | QPSK       | 1       | 0         | 0       | 0         | 1             | 0                     | Default         | 23.48                | 23.80               |
| 39750                                 | 39948       | QPSK       | 1       | 0         | 0       | 0         | 1             | 0                     | ECI 3           | 23.54                | 23.80               |
| 40185                                 | 40383       | QPSK       | 1       | 0         | 0       | 0         | 1             | 0                     | ECI 3           | 23.42                | 23.80               |
| 40620                                 | 40818       | QPSK       | 1       | 0         | 0       | 0         | 1             | 0                     | ECI 3           | 23.41                | 23.80               |
| 41055                                 | 41253       | QPSK       | 1       | 0         | 0       | 0         | 1             | 0                     | ECI 3           | 23.44                | 23.80               |
| 41490                                 | 41292       | QPSK       | 1       | 0         | 0       | 0         | 1             | 0                     | ECI 3           | 23.48                | 23.80               |
| 39750                                 | 39948       | QPSK       | 1       | 0         | 0       | 0         | 1             | 0                     | ECI 5           | 23.54                | 23.80               |
| 40185                                 | 40383       | QPSK       | 1       | 0         | 0       | 0         | 1             | 0                     | ECI 5           | 23.42                | 23.80               |
| 40620                                 | 40818       | QPSK       | 1       | 0         | 0       | 0         | 1             | 0                     | ECI 5           | 23.41                | 23.80               |
| 41055                                 | 41253       | QPSK       | 1       | 0         | 0       | 0         | 1             | 0                     | ECI 5           | 23.44                | 23.80               |
| 41490                                 | 41292       | QPSK       | 1       | 0         | 0       | 0         | 1             | 0                     | ECI 5           | 23.48                | 23.80               |
| 39750                                 | 39948       | QPSK       | 1       | 0         | 0       | 0         | 1             | 0                     | ECI 8           | 23.54                | 23.80               |
| 40185                                 | 40383       | QPSK       | 1       | 0         | 0       | 0         | 1             | 0                     | ECI 8           | 23.42                | 23.80               |
| 40620                                 | 40818       | QPSK       | 1       | 0         | 0       | 0         | 1             | 0                     | ECI 8           | 23.41                | 23.80               |
| 41055                                 | 41253       | QPSK       | 1       | 0         | 0       | 0         | 1             | 0                     | ECI 8           | 23.44                | 23.80               |
| 41490                                 | 41292       | QPSK       | 1       | 0         | 0       | 0         | 1             | 0                     | ECI 8           | 23.48                | 23.80               |
| 39750                                 | 39948       | QPSK       | 1       | 0         | 0       | 0         | 1             | 0                     | ECI 10          | 23.54                | 23.80               |
| 40185                                 | 40383       | QPSK       | 1       | 0         | 0       | 0         | 1             | 0                     | ECI 10          | 23.42                | 23.80               |
| 40620                                 | 40818       | QPSK       | 1       | 0         | 0       | 0         | 1             | 0                     | ECI 10          | 23.41                | 23.80               |
| 41055                                 | 41253       | QPSK       | 1       | 0         | 0       | 0         | 1             | 0                     | ECI 10          | 23.44                | 23.80               |
| 41490                                 | 41292       | QPSK       | 1       | 0         | 0       | 0         | 1             | 0                     | ECI 10          | 23.48                | 23.80               |
| 39750                                 | 39948       | QPSK       | 1       | 0         | 0       | 0         | 1             | 0                     | ECI 13          | 23.54                | 23.70               |
| 40185                                 | 40383       | QPSK       | 1       | 0         | 0       | 0         | 1             | 0                     | ECI 13          | 23.42                | 23.70               |
| 40620                                 | 40818       | QPSK       | 1       | 0         | 0       | 0         | 1             | 0                     | ECI 13          | 23.41                | 23.70               |
| 41055                                 | 41253       | QPSK       | 1       | 0         | 0       | 0         | 1             | 0                     | ECI 13          | 23.44                | 23.70               |
| 41490                                 | 41292       | QPSK       | 1       | 0         | 0       | 0         | 1             | 0                     | ECI 13          | 23.48                | 23.70               |
| 39750                                 | 39948       | QPSK       | 1       | 0         | 0       | 0         | 1             | 0                     | ECI 15          | 23.54                | 23.80               |
| 40185                                 | 40383       | QPSK       | 1       | 0         | 0       | 0         | 1             | 0                     | ECI 15          | 23.42                | 23.80               |
| 40620                                 | 40818       | QPSK       | 1       | 0         | 0       | 0         | 1             | 0                     | ECI 15          | 23.41                | 23.80               |
| 41055                                 | 41253       | QPSK       | 1       | 0         | 0       | 0         | 1             | 0                     | ECI 15          | 23.44                | 23.80               |
| 41490                                 | 41292       | QPSK       | 1       | 0         | 0       | 0         | 1             | 0                     | ECI 15          | 23.48                | 23.80               |

| CA 41C Ant 3                          |             |            |         |           |         |           |               |                       |                 |                      |                     |
|---------------------------------------|-------------|------------|---------|-----------|---------|-----------|---------------|-----------------------|-----------------|----------------------|---------------------|
| Combination 20MHz+20MHz (100RB+100RB) |             |            |         |           |         |           |               |                       |                 |                      |                     |
| PCC Channel                           | SCC Channel | Modulation | PCC     |           | SCC     |           | Total RB Size | Target MPR Level (dB) | Power Reduction | Measured Power (dBm) | Tune up Power (dBm) |
|                                       |             |            | RB Size | RB offset | RB Size | RB offset |               |                       |                 |                      |                     |
| 39750                                 | 39948       | QPSK       | 1       | 0         | 0       | 0         | 1             | 0                     | Default         | 23.35                | 23.80               |
| 40185                                 | 40383       | QPSK       | 1       | 0         | 0       | 0         | 1             | 0                     | Default         | 23.46                | 23.80               |
| 40620                                 | 40818       | QPSK       | 1       | 0         | 0       | 0         | 1             | 0                     | Default         | 23.41                | 23.80               |
| 41055                                 | 41253       | QPSK       | 1       | 0         | 0       | 0         | 1             | 0                     | Default         | 23.44                | 23.80               |
| 41490                                 | 41292       | QPSK       | 1       | 0         | 0       | 0         | 1             | 0                     | Default         | 23.43                | 23.80               |
| 39750                                 | 39948       | QPSK       | 1       | 0         | 0       | 0         | 1             | 0                     | ECI 3           | 23.35                | 23.80               |
| 40185                                 | 40383       | QPSK       | 1       | 0         | 0       | 0         | 1             | 0                     | ECI 3           | 23.46                | 23.80               |
| 40620                                 | 40818       | QPSK       | 1       | 0         | 0       | 0         | 1             | 0                     | ECI 3           | 23.41                | 23.80               |
| 41055                                 | 41253       | QPSK       | 1       | 0         | 0       | 0         | 1             | 0                     | ECI 3           | 23.44                | 23.80               |
| 41490                                 | 41292       | QPSK       | 1       | 0         | 0       | 0         | 1             | 0                     | ECI 3           | 23.43                | 23.80               |
| 39750                                 | 39948       | QPSK       | 1       | 0         | 0       | 0         | 1             | 0                     | ECI 5           | 19.38                | 19.70               |
| 40185                                 | 40383       | QPSK       | 1       | 0         | 0       | 0         | 1             | 0                     | ECI 5           | 19.48                | 19.70               |
| 40620                                 | 40818       | QPSK       | 1       | 0         | 0       | 0         | 1             | 0                     | ECI 5           | 19.47                | 19.70               |
| 41055                                 | 41253       | QPSK       | 1       | 0         | 0       | 0         | 1             | 0                     | ECI 5           | 19.47                | 19.70               |
| 41490                                 | 41292       | QPSK       | 1       | 0         | 0       | 0         | 1             | 0                     | ECI 5           | 19.46                | 19.70               |
| 39750                                 | 39948       | QPSK       | 1       | 0         | 0       | 0         | 1             | 0                     | ECI 8           | 23.35                | 23.80               |
| 40185                                 | 40383       | QPSK       | 1       | 0         | 0       | 0         | 1             | 0                     | ECI 8           | 23.46                | 23.80               |
| 40620                                 | 40818       | QPSK       | 1       | 0         | 0       | 0         | 1             | 0                     | ECI 8           | 23.41                | 23.80               |
| 41055                                 | 41253       | QPSK       | 1       | 0         | 0       | 0         | 1             | 0                     | ECI 8           | 23.44                | 23.80               |
| 41490                                 | 41292       | QPSK       | 1       | 0         | 0       | 0         | 1             | 0                     | ECI 8           | 23.43                | 23.80               |
| 39750                                 | 39948       | QPSK       | 1       | 0         | 0       | 0         | 1             | 0                     | ECI 10          | 18.94                | 19.20               |
| 40185                                 | 40383       | QPSK       | 1       | 0         | 0       | 0         | 1             | 0                     | ECI 10          | 19.01                | 19.20               |
| 40620                                 | 40818       | QPSK       | 1       | 0         | 0       | 0         | 1             | 0                     | ECI 10          | 18.98                | 19.20               |
| 41055                                 | 41253       | QPSK       | 1       | 0         | 0       | 0         | 1             | 0                     | ECI 10          | 18.96                | 19.20               |
| 41490                                 | 41292       | QPSK       | 1       | 0         | 0       | 0         | 1             | 0                     | ECI 10          | 18.92                | 19.20               |
| 39750                                 | 39948       | QPSK       | 1       | 0         | 0       | 0         | 1             | 0                     | ECI 13          | 23.35                | 23.80               |
| 40185                                 | 40383       | QPSK       | 1       | 0         | 0       | 0         | 1             | 0                     | ECI 13          | 23.46                | 23.80               |
| 40620                                 | 40818       | QPSK       | 1       | 0         | 0       | 0         | 1             | 0                     | ECI 13          | 23.41                | 23.80               |
| 41055                                 | 41253       | QPSK       | 1       | 0         | 0       | 0         | 1             | 0                     | ECI 13          | 23.44                | 23.80               |
| 41490                                 | 41292       | QPSK       | 1       | 0         | 0       | 0         | 1             | 0                     | ECI 13          | 23.43                | 23.80               |
| 39750                                 | 39948       | QPSK       | 1       | 0         | 0       | 0         | 1             | 0                     | ECI 15          | 18.46                | 17.70               |
| 40185                                 | 40383       | QPSK       | 1       | 0         | 0       | 0         | 1             | 0                     | ECI 15          | 18.43                | 17.70               |
| 40620                                 | 40818       | QPSK       | 1       | 0         | 0       | 0         | 1             | 0                     | ECI 15          | 18.46                | 17.70               |
| 41055                                 | 41253       | QPSK       | 1       | 0         | 0       | 0         | 1             | 0                     | ECI 15          | 18.57                | 17.70               |
| 41490                                 | 41292       | QPSK       | 1       | 0         | 0       | 0         | 1             | 0                     | ECI 15          | 18.44                | 17.70               |

| CA 41C Ant 5                          |             |            |         |           |         |           |               |                       |                 |                      |                     |
|---------------------------------------|-------------|------------|---------|-----------|---------|-----------|---------------|-----------------------|-----------------|----------------------|---------------------|
| Combination 20MHz+20MHz (100RB+100RB) |             |            |         |           |         |           |               |                       |                 |                      |                     |
| PCC Channel                           | SCC Channel | Modulation | PCC     |           | SCC     |           | Total RB Size | Target MPR Level (dB) | Power Reduction | Measured Power (dBm) | Tune up Power (dBm) |
|                                       |             |            | RB Size | RB offset | RB Size | RB offset |               |                       |                 |                      |                     |
| 39750                                 | 39948       | QPSK       | 1       | 0         | 0       | 0         | 1             | 0                     | Default         | 20.30                | 20.80               |
| 40185                                 | 40383       | QPSK       | 1       | 0         | 0       | 0         | 1             | 0                     | Default         | 20.27                | 20.80               |
| 40620                                 | 40818       | QPSK       | 1       | 0         | 0       | 0         | 1             | 0                     | Default         | 20.33                | 20.80               |
| 41055                                 | 41253       | QPSK       | 1       | 0         | 0       | 0         | 1             | 0                     | Default         | 20.29                | 20.80               |
| 41490                                 | 41292       | QPSK       | 1       | 0         | 0       | 0         | 1             | 0                     | Default         | 20.24                | 20.80               |
| 39750                                 | 39948       | QPSK       | 1       | 0         | 0       | 0         | 1             | 0                     | ECI 3           | 20.30                | 20.80               |
| 40185                                 | 40383       | QPSK       | 1       | 0         | 0       | 0         | 1             | 0                     | ECI 3           | 20.27                | 20.80               |
| 40620                                 | 40818       | QPSK       | 1       | 0         | 0       | 0         | 1             | 0                     | ECI 3           | 20.33                | 20.80               |
| 41055                                 | 41253       | QPSK       | 1       | 0         | 0       | 0         | 1             | 0                     | ECI 3           | 20.29                | 20.80               |
| 41490                                 | 41292       | QPSK       | 1       | 0         | 0       | 0         | 1             | 0                     | ECI 3           | 20.24                | 20.80               |
| 39750                                 | 39948       | QPSK       | 1       | 0         | 0       | 0         | 1             | 0                     | ECI 5           | 20.30                | 20.80               |
| 40185                                 | 40383       | QPSK       | 1       | 0         | 0       | 0         | 1             | 0                     | ECI 5           | 20.27                | 20.80               |
| 40620                                 | 40818       | QPSK       | 1       | 0         | 0       | 0         | 1             | 0                     | ECI 5           | 20.33                | 20.80               |
| 41055                                 | 41253       | QPSK       | 1       | 0         | 0       | 0         | 1             | 0                     | ECI 5           | 20.29                | 20.80               |
| 41490                                 | 41292       | QPSK       | 1       | 0         | 0       | 0         | 1             | 0                     | ECI 5           | 20.24                | 20.80               |
| 39750                                 | 39948       | QPSK       | 1       | 0         | 0       | 0         | 1             | 0                     | ECI 8           | 20.30                | 20.80               |
| 40185                                 | 40383       | QPSK       | 1       | 0         | 0       | 0         | 1             | 0                     | ECI 8           | 20.27                | 20.80               |
| 40620                                 | 40818       | QPSK       | 1       | 0         | 0       | 0         | 1             | 0                     | ECI 8           | 20.33                | 20.80               |
| 41055                                 | 41253       | QPSK       | 1       | 0         | 0       | 0         | 1             | 0                     | ECI 8           | 20.29                | 20.80               |
| 41490                                 | 41292       | QPSK       | 1       | 0         | 0       | 0         | 1             | 0                     | ECI 8           | 20.24                | 20.80               |
| 39750                                 | 39948       | QPSK       | 1       | 0         | 0       | 0         | 1             | 0                     | ECI 10          | 20.30                | 20.80               |
| 40185                                 | 40383       | QPSK       | 1       | 0         | 0       | 0         | 1             | 0                     | ECI 10          | 20.27                | 20.80               |
| 40620                                 | 40818       | QPSK       | 1       | 0         | 0       | 0         | 1             | 0                     | ECI 10          | 20.33                | 20.80               |
| 41055                                 | 41253       | QPSK       | 1       | 0         | 0       | 0         | 1             | 0                     | ECI 10          | 20.29                | 20.80               |
| 41490                                 | 41292       | QPSK       | 1       | 0         | 0       | 0         | 1             | 0                     | ECI 10          | 20.24                | 20.80               |
| 39750                                 | 39948       | QPSK       | 1       | 0         | 0       | 0         | 1             | 0                     | ECI 13          | 20.30                | 20.80               |
| 40185                                 | 40383       | QPSK       | 1       | 0         | 0       | 0         | 1             | 0                     | ECI 13          | 20.27                | 20.80               |
| 40620                                 | 40818       | QPSK       | 1       | 0         | 0       | 0         | 1             | 0                     | ECI 13          | 20.33                | 20.80               |
| 41055                                 | 41253       | QPSK       | 1       | 0         | 0       | 0         | 1             | 0                     | ECI 13          | 20.29                | 20.80               |
| 41490                                 | 41292       | QPSK       | 1       | 0         | 0       | 0         | 1             | 0                     | ECI 13          | 20.24                | 20.80               |
| 39750                                 | 39948       | QPSK       | 1       | 0         | 0       | 0         | 1             | 0                     | ECI 15          | 20.30                | 20.80               |
| 40185                                 | 40383       | QPSK       | 1       | 0         | 0       | 0         | 1             | 0                     | ECI 15          | 20.27                | 20.80               |
| 40620                                 | 40818       | QPSK       | 1       | 0         | 0       | 0         | 1             | 0                     | ECI 15          | 20.33                | 20.80               |
| 41055                                 | 41253       | QPSK       | 1       | 0         | 0       | 0         | 1             | 0                     | ECI 15          | 20.29                | 20.80               |
| 41490                                 | 41292       | QPSK       | 1       | 0         | 0       | 0         | 1             | 0                     | ECI 15          | 20.24                | 20.80               |