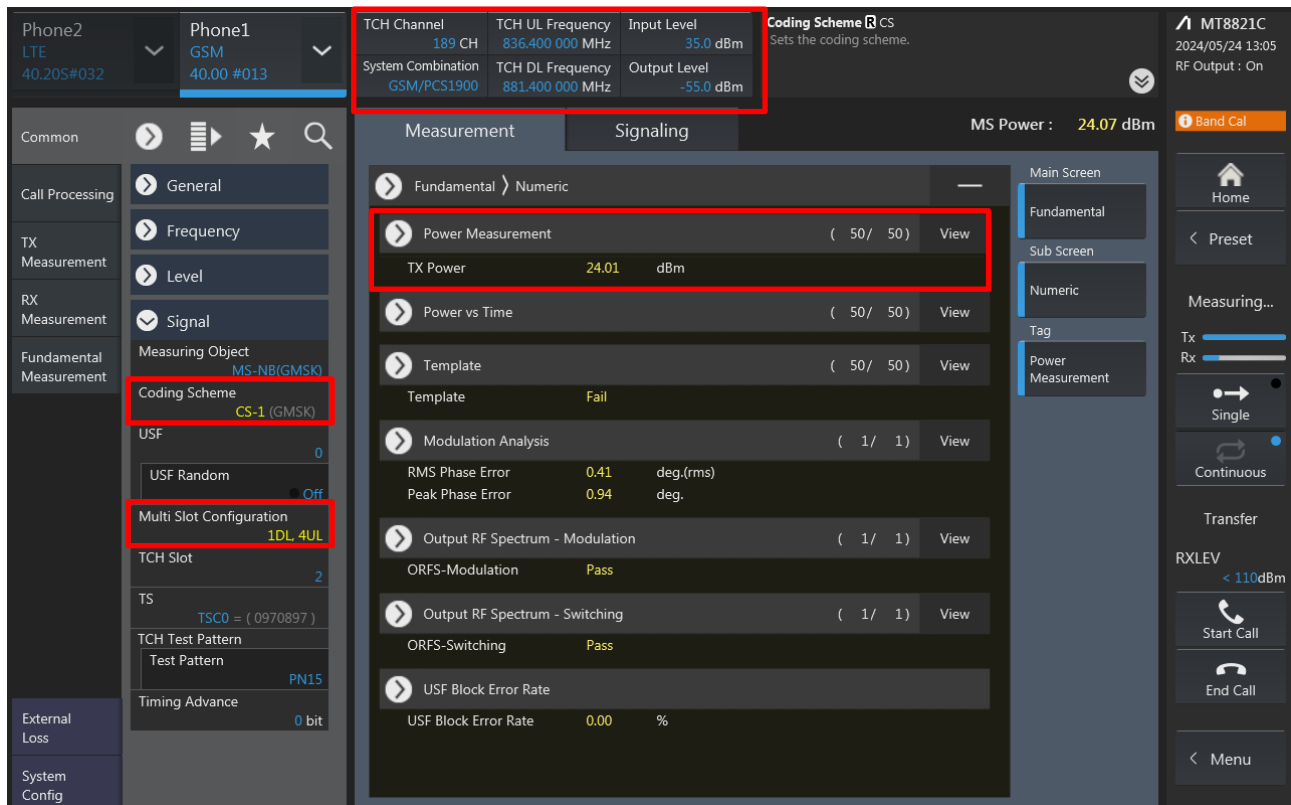


Power measurement connection diagram:

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.

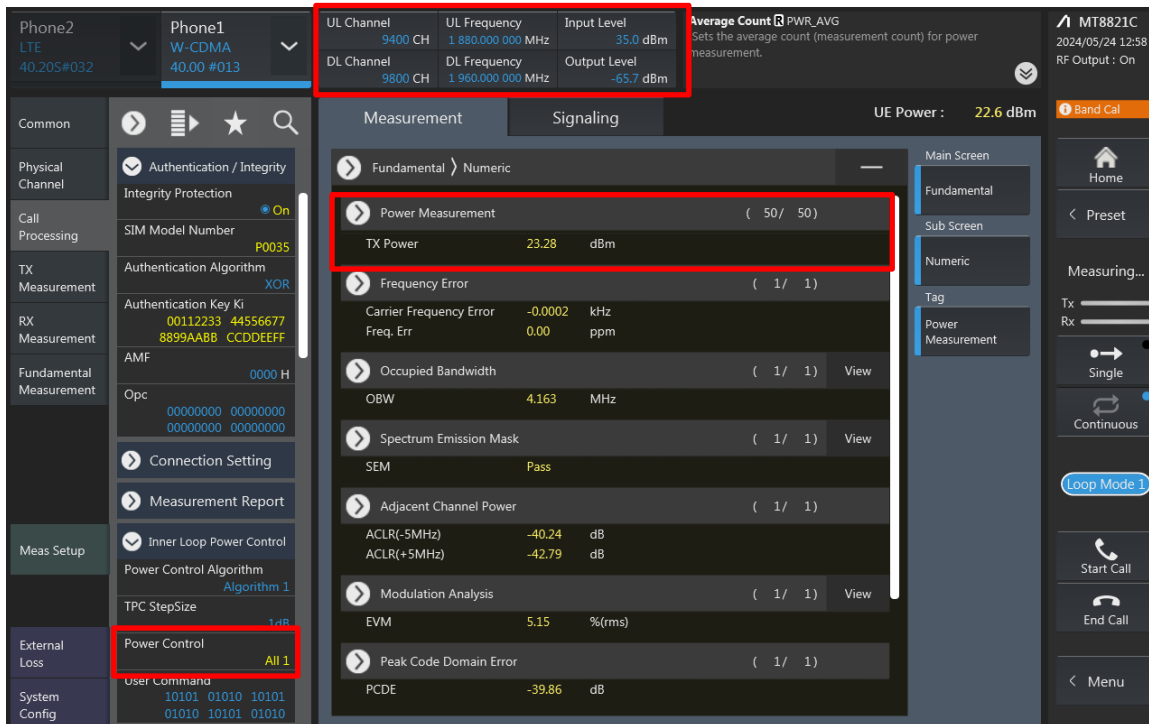
<GSM>



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

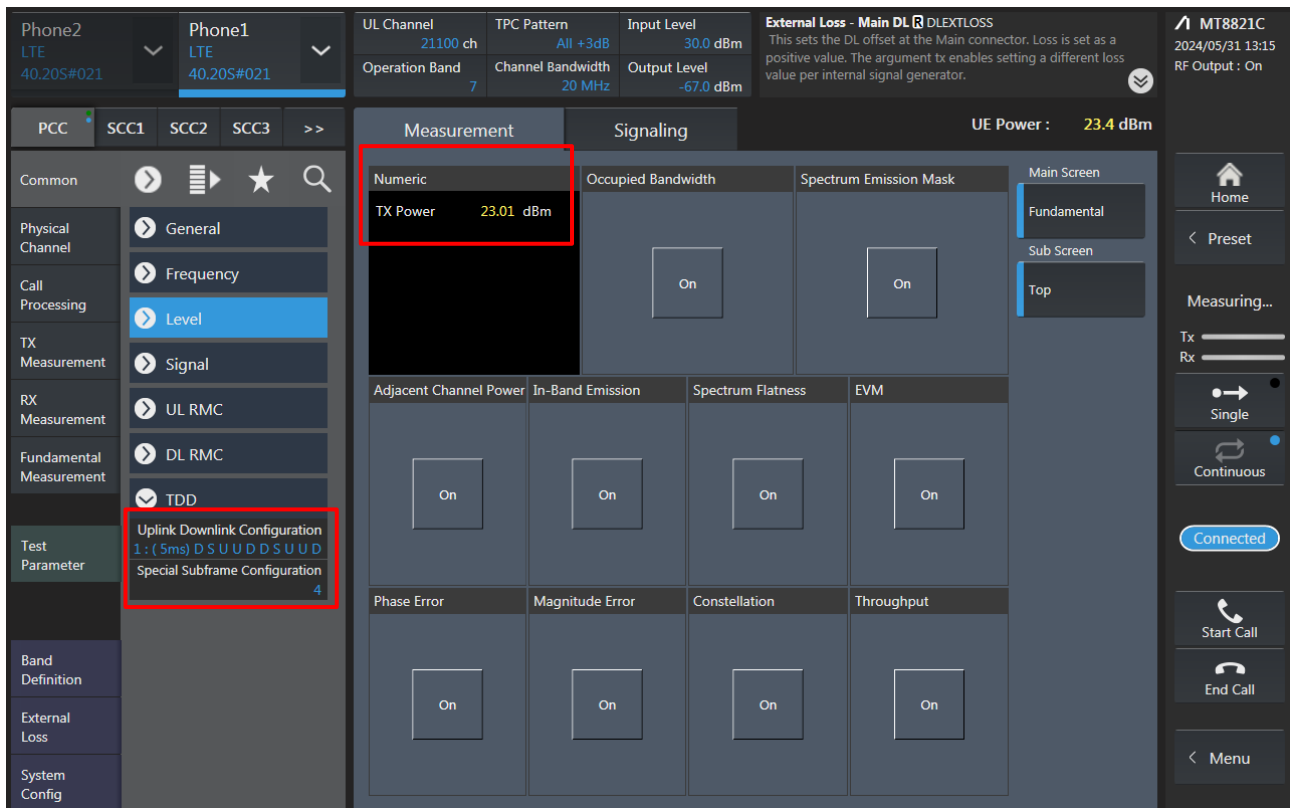
- Top Bar:** Shows Phone2 (LTE, 40.205#032) and Phone1 (GSM, 40.00 #013). The TCH Channel is 189 CH, TCH UL Frequency is 836.400 000 MHz, Input Level is 35.0 dBm, and TCH DL Frequency is 881.400 000 MHz. The Coding Scheme is CS.
- Left Sidebar:** Contains navigation options like Common, Call Processing, TX Measurement, RX Measurement, Fundamental Measurement, and External Loss. The 'Fundamental Measurement' section is expanded, showing 'Coding Scheme' (CS-1 (GMSK)) and 'Multi Slot Configuration' (1DL, 4UL).
- Main Area:** Displays 'Measurement' and 'Signaling' tabs. The 'Measurement' tab is active, showing 'Fundamental' and 'Numeric' views. The 'Power Measurement' section is highlighted, showing 'TX Power' as 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 timestamp 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>



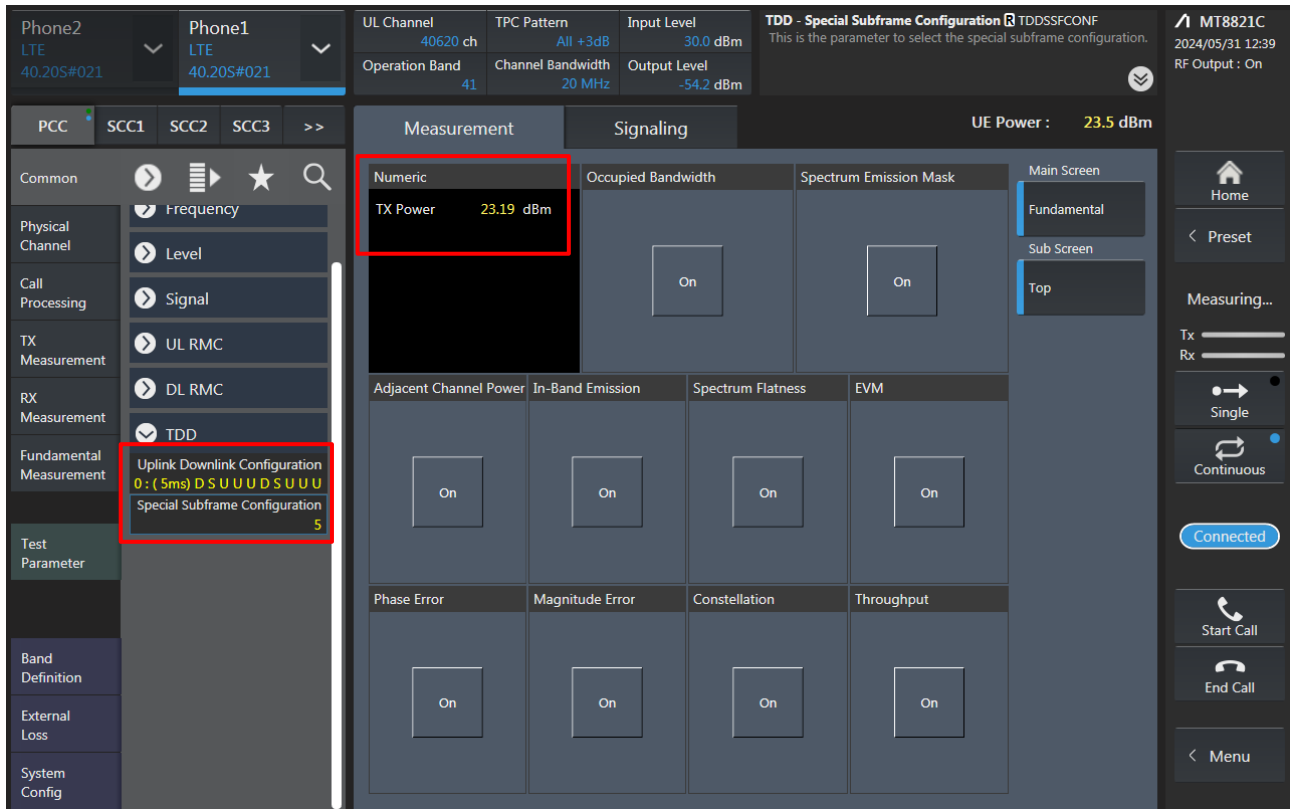
The screenshot shows the WCDMA measurement interface. The top bar displays 'Phone2 LTE 40.20S#032' and 'Phone1 W-CDMA 40.00 #013'. The 'Measurement' tab is active, showing 'Fundamental' and 'Numeric' views. The 'Power Measurement' section is highlighted with a red box, showing 'TX Power' as 23.28 dBm.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

<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 'TX Power' is 23.01 dBm. The 'Occupied Bandwidth' section shows 'OBW' as 4.163 MHz. The 'Adjacent Channel Power' section shows 'ACLR(-5MHz)' as -40.24 dB and 'ACLR(+5MHz)' as -42.79 dB. The 'Modulation Analysis' section shows 'EVM' as 5.15 % (rms). The 'Peak Code Domain Error' section shows 'PCDE' as -39.86 dB. The 'UE Power' is 23.4 dBm. The 'Band Cal' button is visible on the right. The 'Common' sidebar on the left includes 'Physical Channel', 'Call Processing', 'TX Measurement', 'RX Measurement', 'Fundamental Measurement', 'Meas Setup', 'External Loss', 'System Config', and 'Power Control' (highlighted with a red box). The 'Test Parameter' section shows 'Uplink Downlink Configuration 1: (5ms) D S U U D D S U U D' and 'Special Subframe Configuration 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

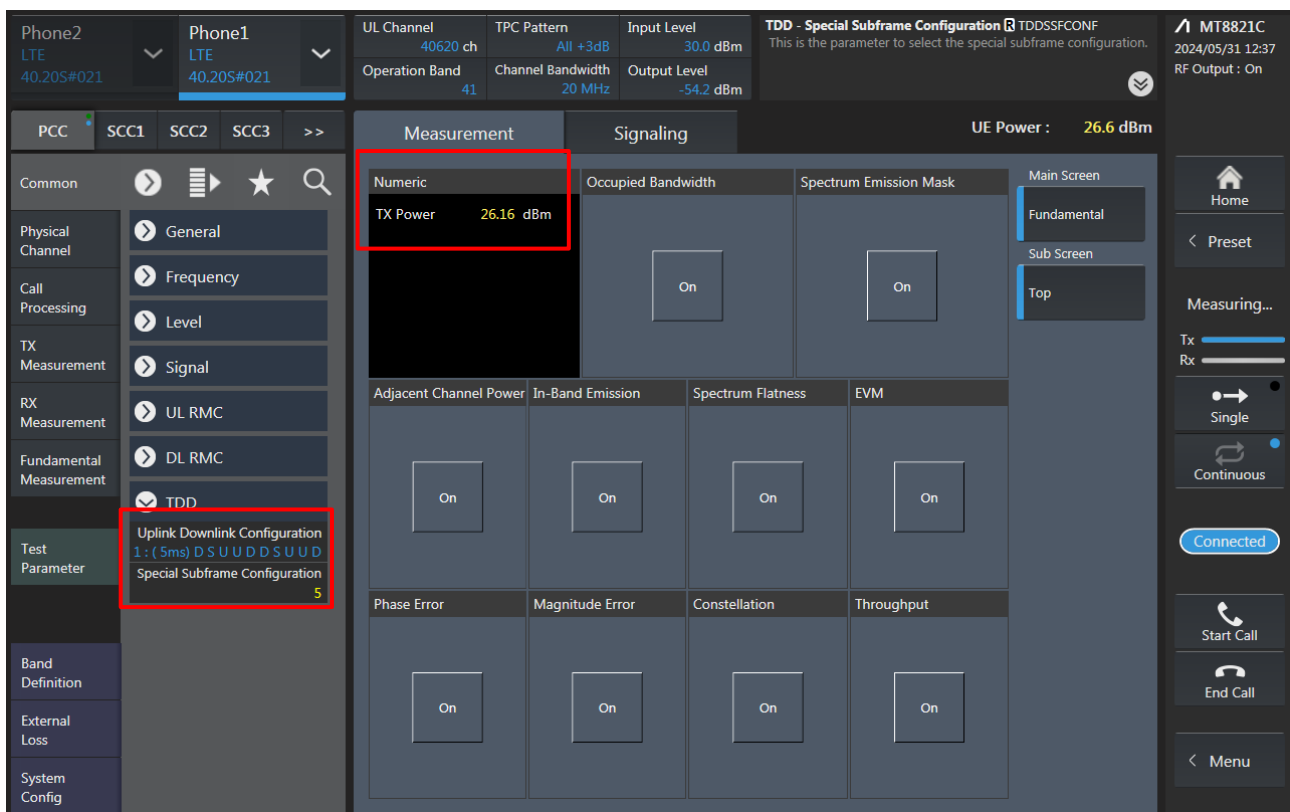
Common Frequency Level Signal UL RMC DL RMC TDD Uplink Downlink Configuration 0 : (5ms) D S U U U D S U U U Special Subframe Configuration 5

Physical Channel Call Processing TX Measurement RX Measurement Fundamental Measurement Test Parameter Band Definition External Loss System Config

Main Screen Fundamental Sub Screen Top

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

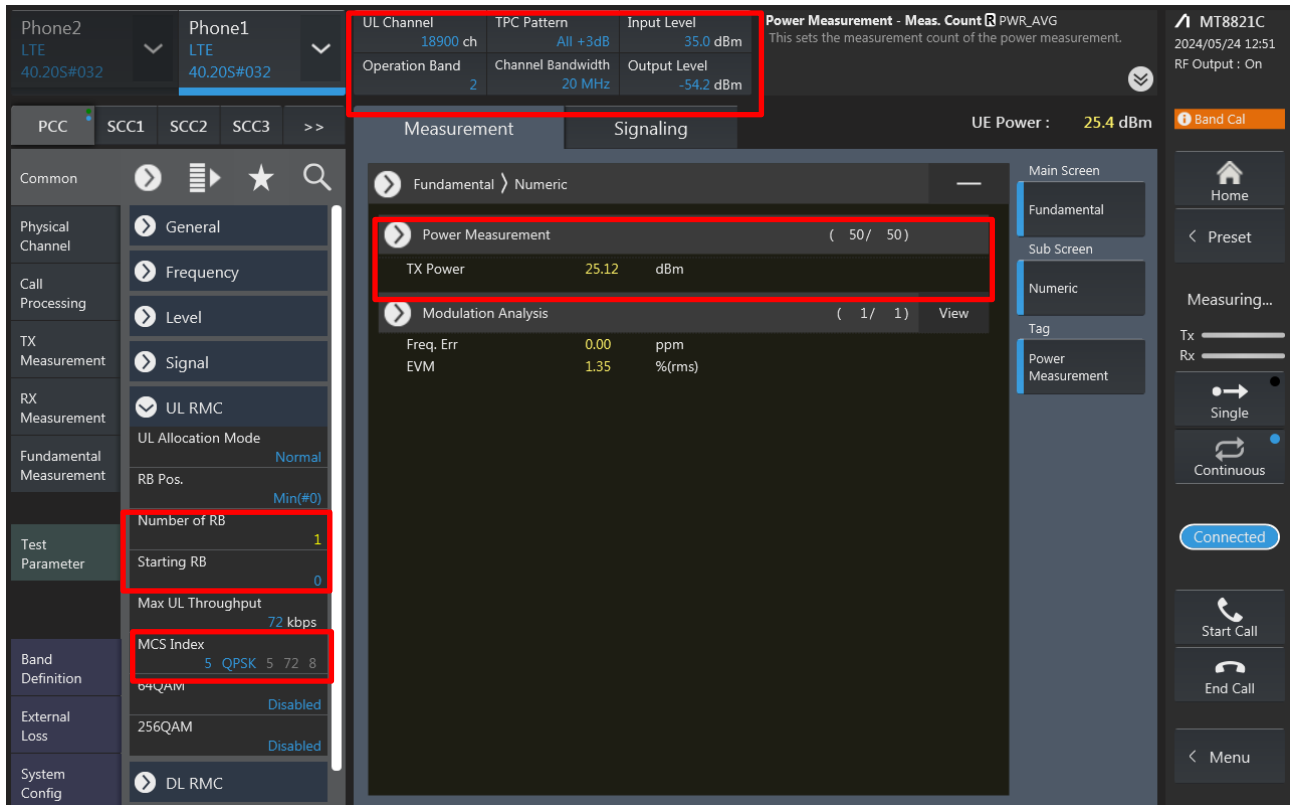
On On On On

Common General Frequency Level Signal UL RMC DL RMC TDD Uplink Downlink Configuration 1 : (5ms) D S U U D D S U U D Special Subframe Configuration 5

Physical Channel Call Processing TX Measurement RX Measurement Fundamental Measurement Test Parameter Band Definition External Loss System Config

Main Screen Fundamental Sub Screen Top

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

PCC SCC1 SCC2 SCC3 >>

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

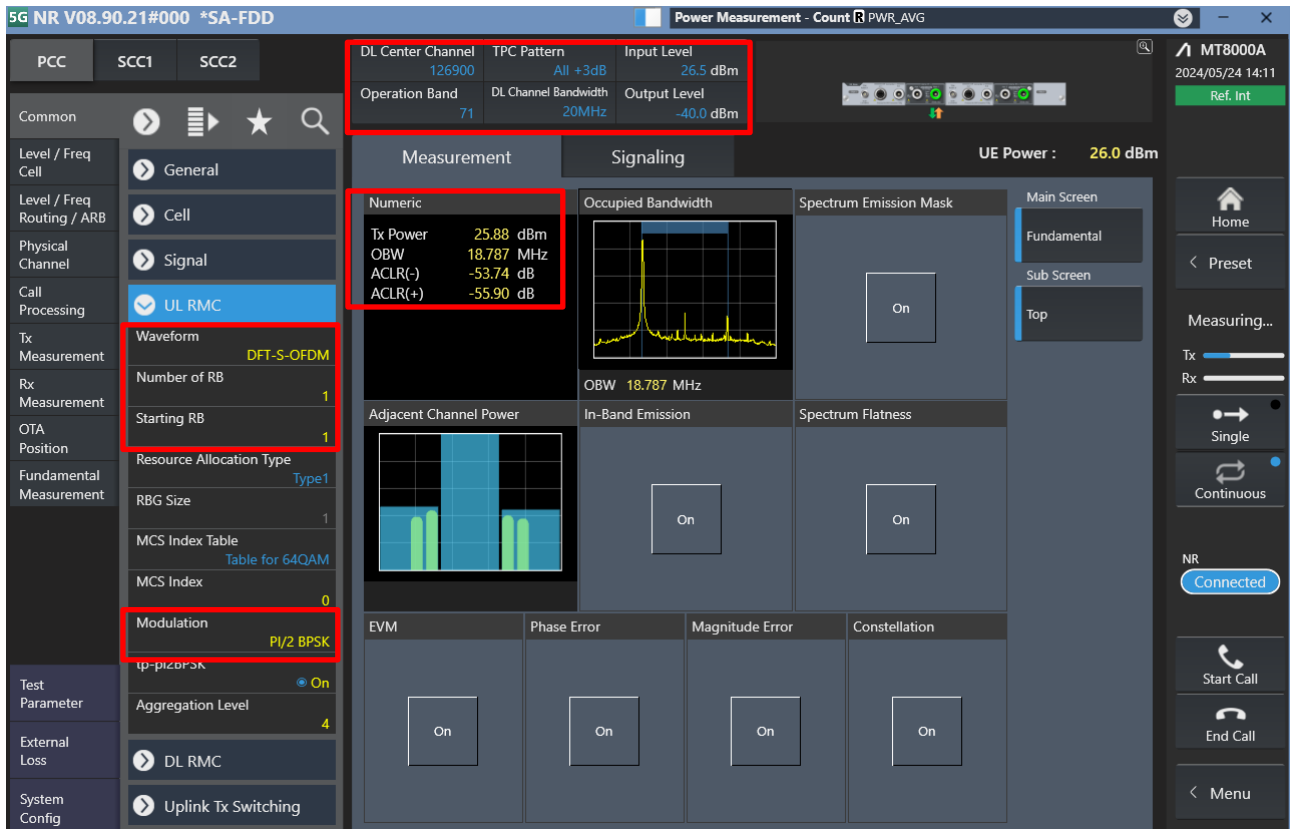
Connected

Start Call

End Call

Menu

<5G NR FR1>



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

Power Measurement - Count PWR_AVG

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

PCC SCC1 SCC2

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

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

Aggregation Level 4

DL RMC

Uplink Tx Switching

Measurement Signaling

Numeric

Tx Power 25.88 dBm

OBW 18.787 MHz

ACLR(-) -53.74 dB

ACLR(+) -55.90 dB

Occupied Bandwidth

OBW 18.787 MHz

Spectrum Emission Mask

On

Adjacent Channel Power

In-Band Emission

Spectrum Flatness

On

EVM

Phase Error

Magnitude Error

Constellation

On

Main Screen

Fundamental

Sub Screen

Top

Home

Preset

Measuring...

Tx

Rx

Single

Continuous

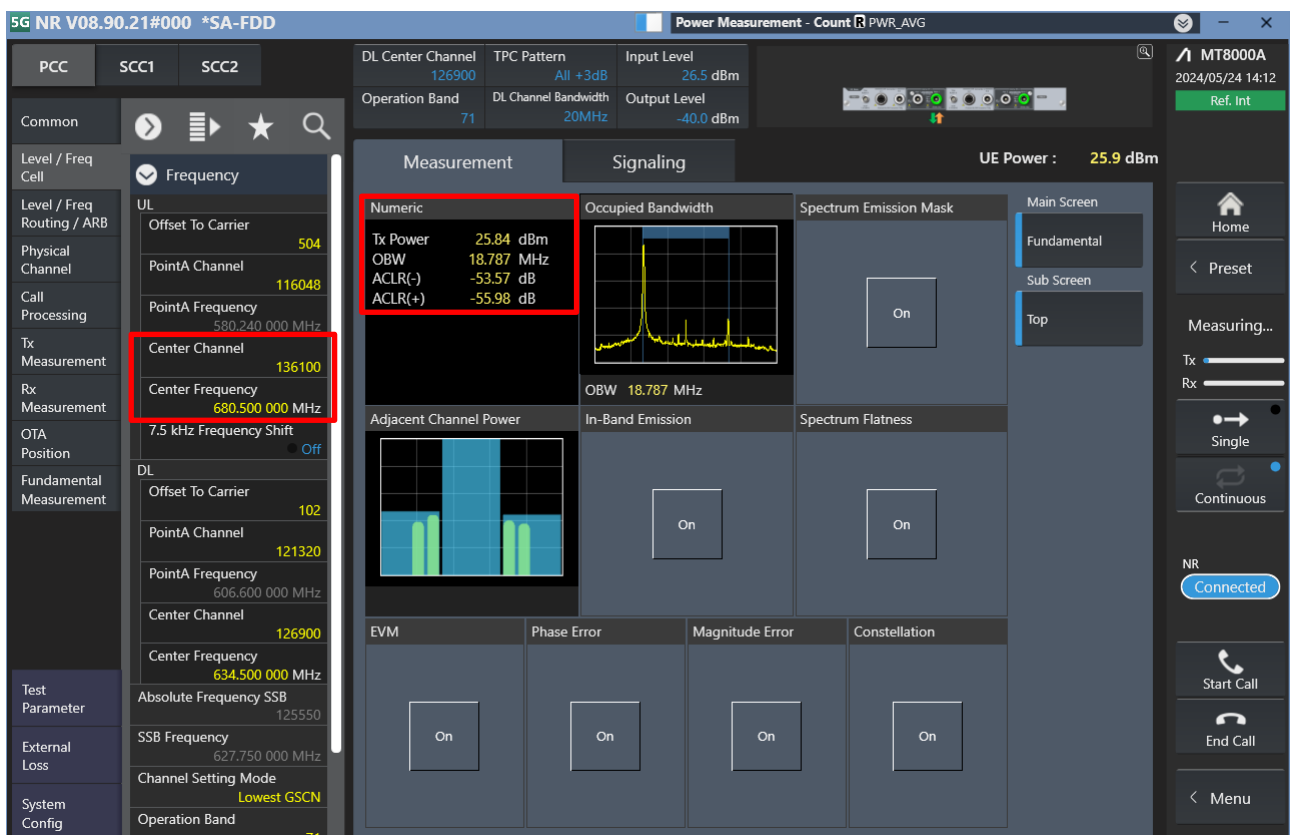
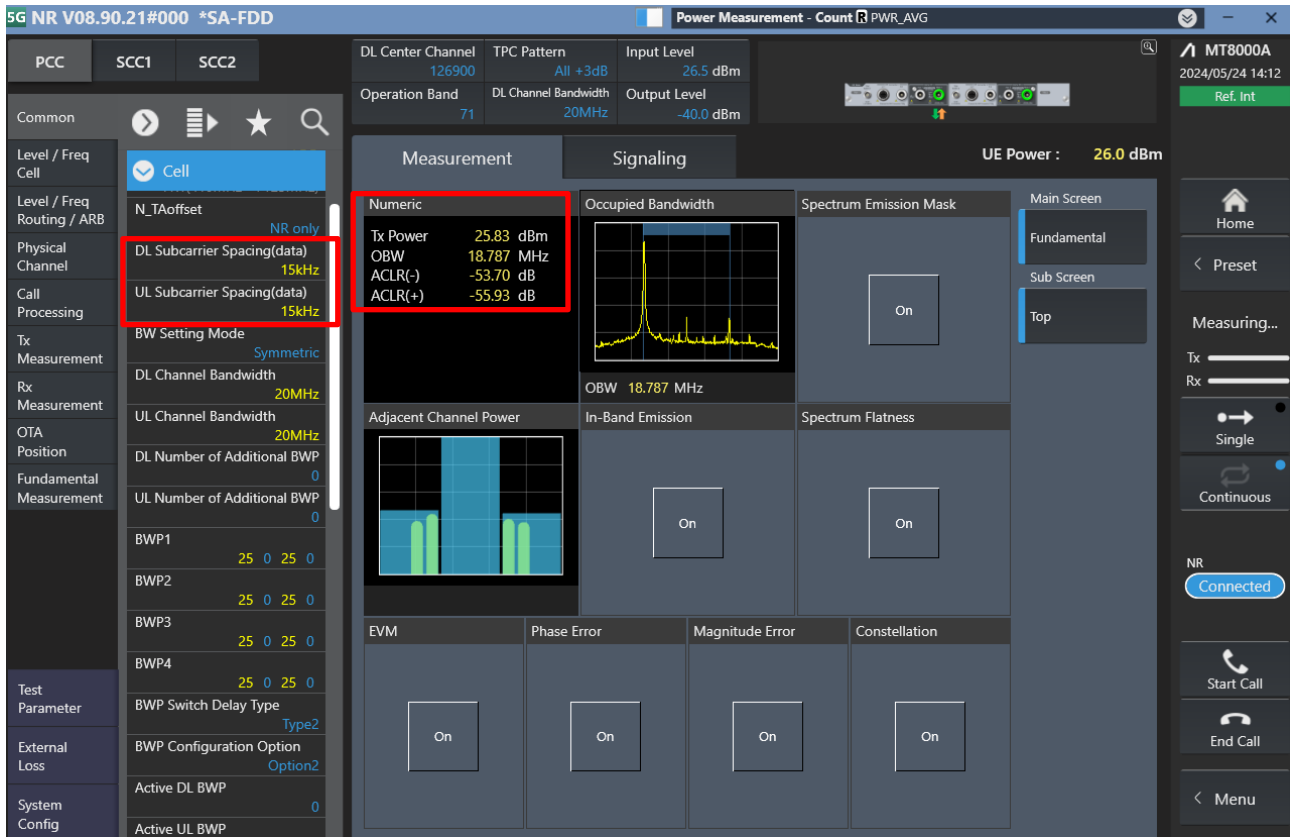
NR

Connected

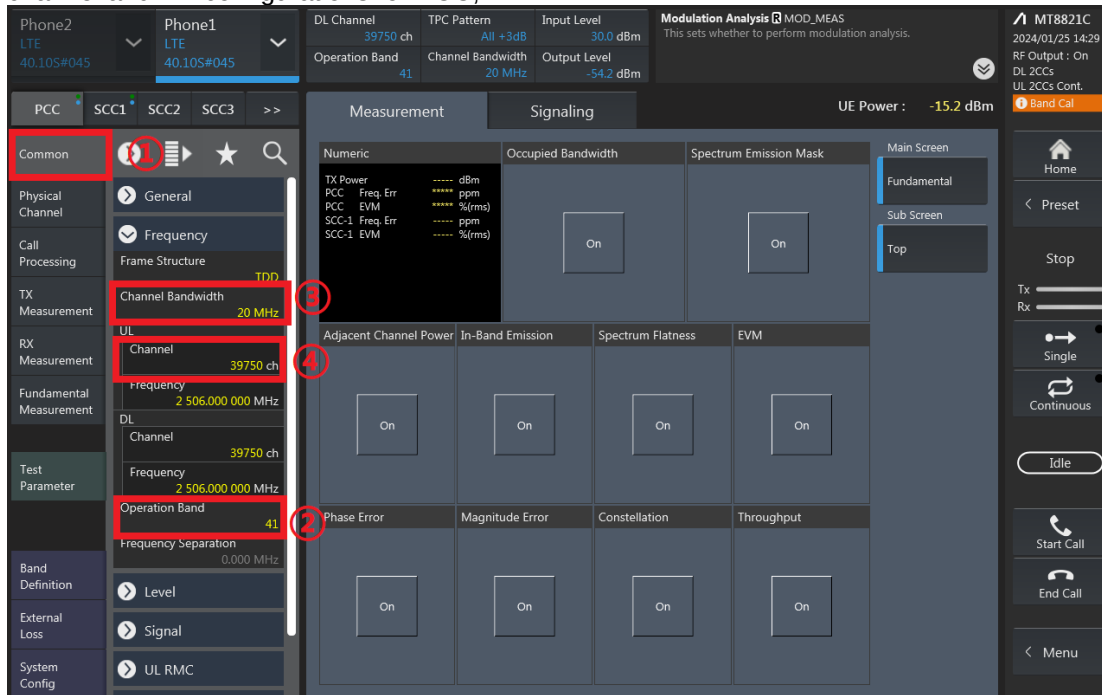
Start Call

End Call

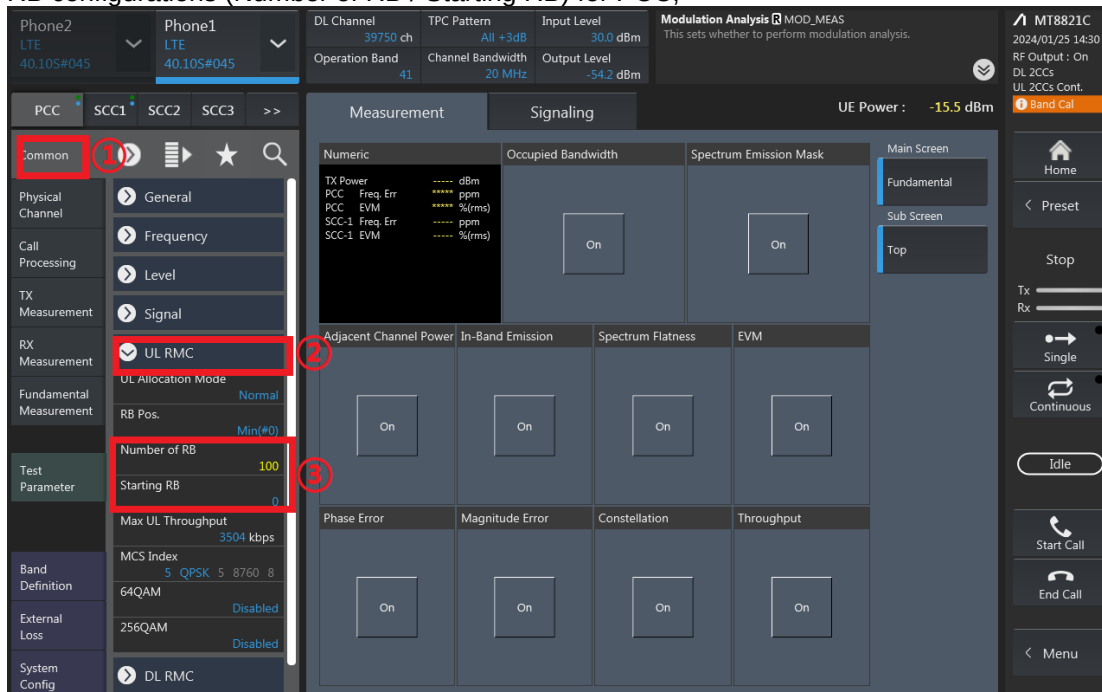
Menu



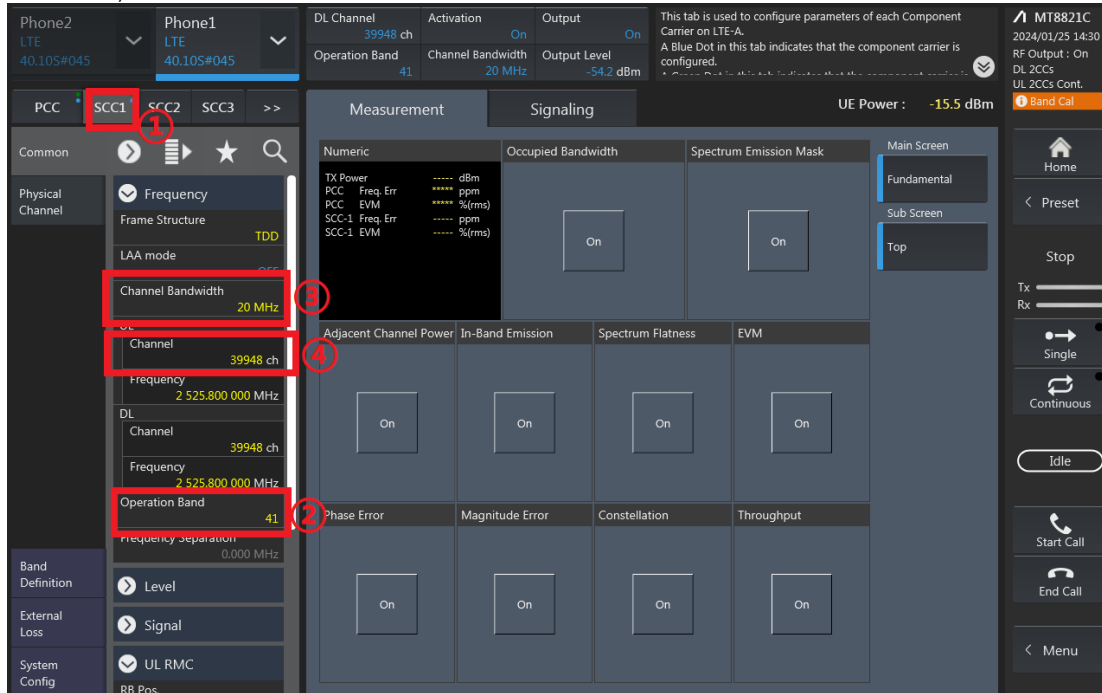
3. PCC parameter Settings: on the screen, and then select the PCC tab and Set operating band, BW, channel and RB configurations for PCC;



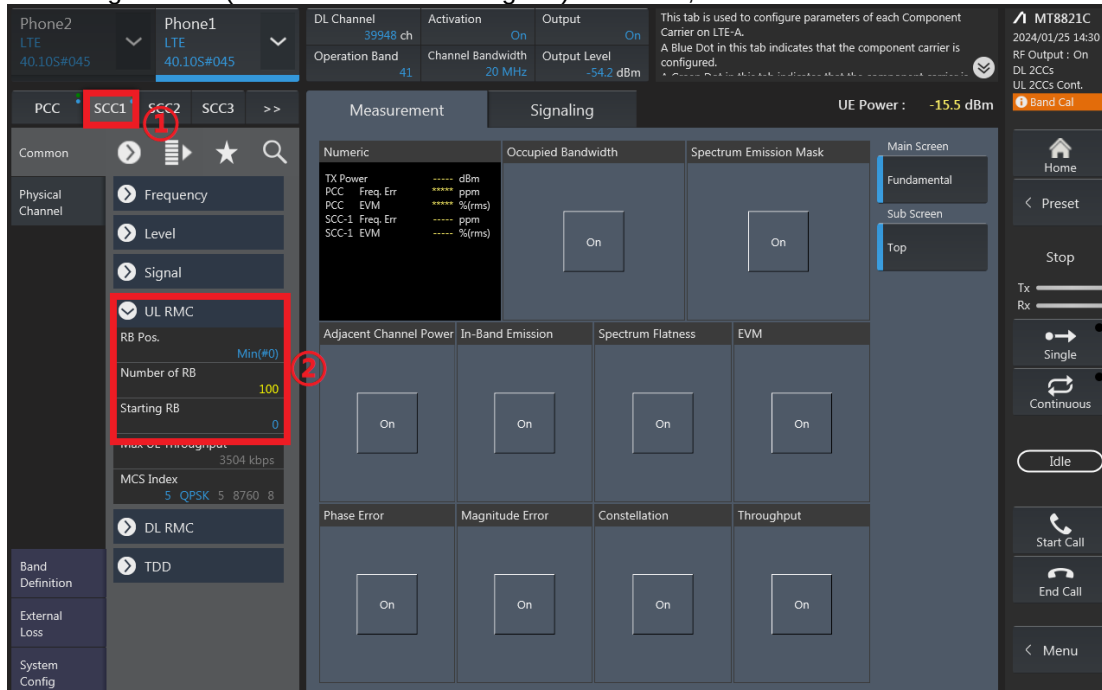
RB configurations (Number of RB / Starting RB) for PCC;



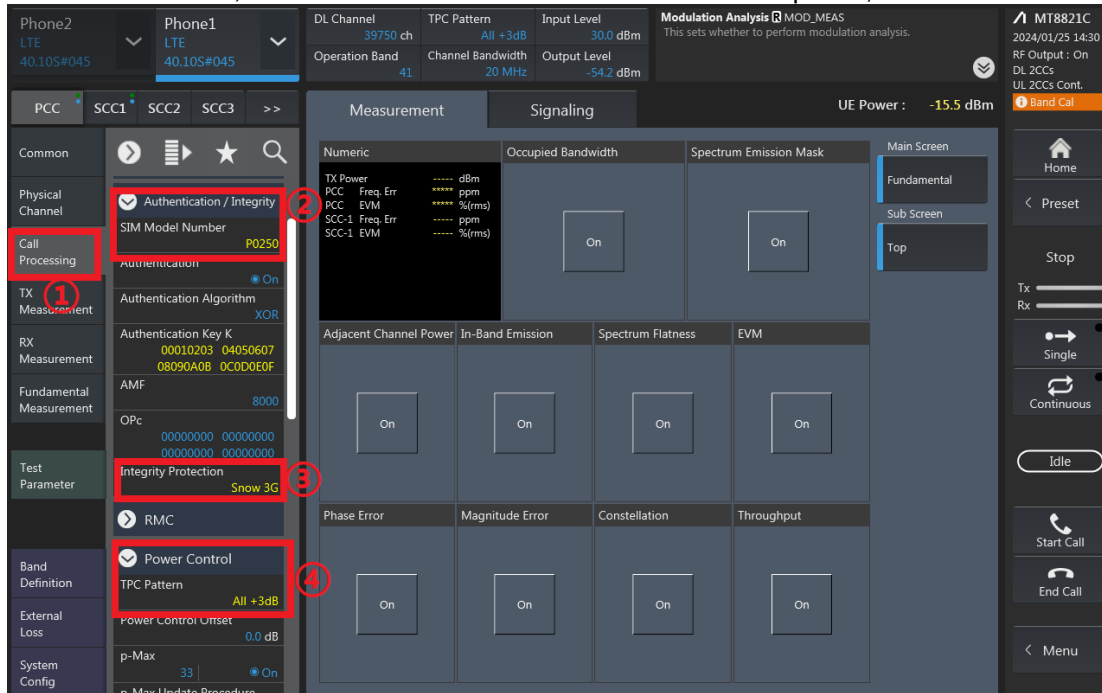
4. SCC parameter Settings: Select the SCC1 tab, Set operating band, BW, channel, and RB configurations for SCC1;



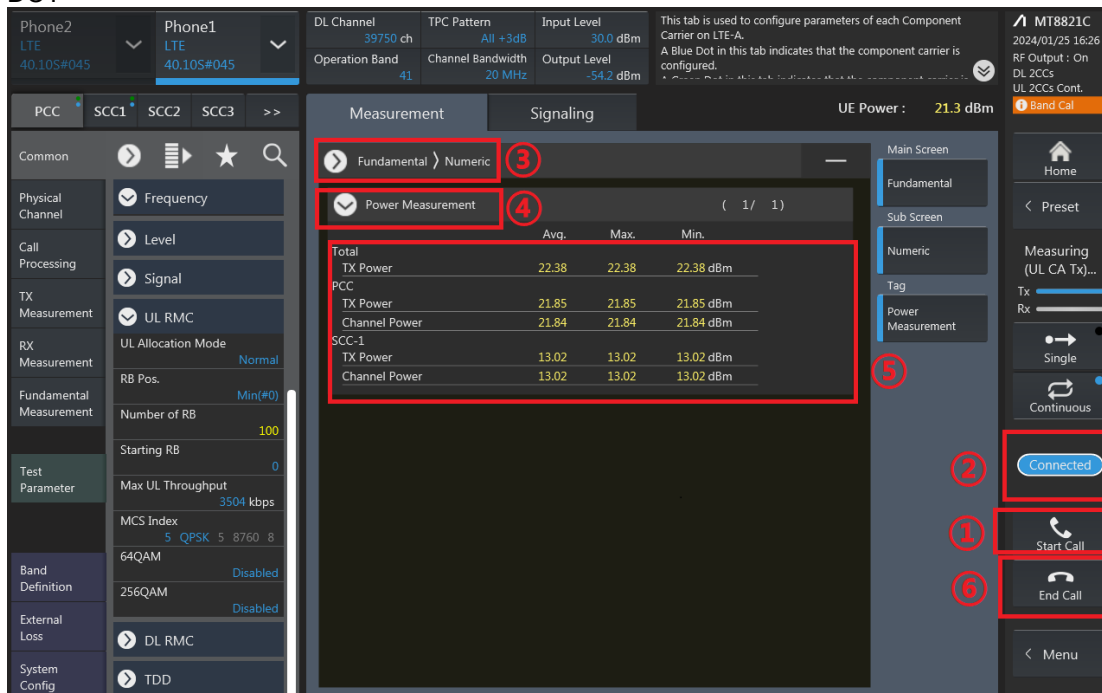
RB configurations (Number of RB / Starting RB) for SCC1;



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_5B Ant0 Default								
Combination 10MHz+10MHz (50RB+50RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
20450	20549	QPSK	1	49	1	0	22.61	24.00
20476	20575	QPSK	1	49	1	0	22.75	24.00
20600	20501	QPSK	1	0	1	49	22.63	24.00

CA_5B Ant1 Default								
Combination 10MHz+10MHz (50RB+50RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
20450	20549	QPSK	1	49	1	0	22.51	24.00
20476	20575	QPSK	1	49	1	0	22.62	24.00
20600	20501	QPSK	1	0	1	49	22.55	24.00

CA_38C Ant9 Default								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
37850	38048	QPSK	1	99	1	0	23.21	24.00
37901	38099	QPSK	1	99	1	0	23.29	24.00
38150	37952	QPSK	1	0	1	99	23.16	24.00

CA_38C Ant1 Default								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
37850	38048	QPSK	1	99	1	0	22.50	24.00
37901	38099	QPSK	1	99	1	0	22.55	24.00
38150	37952	QPSK	1	0	1	99	22.51	24.00

CA_41C Ant9 Default								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
39750	39948	QPSK	1	99	1	0	22.59	24.00
40185	40383	QPSK	1	99	1	0	22.54	24.00
40620	40818	QPSK	1	99	1	0	22.87	24.00
41055	41253	QPSK	1	99	1	0	22.64	24.00
41490	41292	QPSK	1	0	1	99	22.54	24.00

CA_41C HPUE Ant9 Default								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
39750	39948	QPSK	1	99	1	0	25.82	27.00
40185	40383	QPSK	1	99	1	0	25.86	27.00
40620	40818	QPSK	1	99	1	0	25.98	27.00
41055	41253	QPSK	1	99	1	0	25.81	27.00
41490	41292	QPSK	1	0	1	99	25.83	27.00

CA_41C Ant1 Default								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
39750	39948	QPSK	1	99	1	0	22.59	24.00
40185	40383	QPSK	1	99	1	0	22.49	24.00
40620	40818	QPSK	1	99	1	0	22.66	24.00
41055	41253	QPSK	1	99	1	0	22.57	24.00
41490	41292	QPSK	1	0	1	99	22.51	24.00

CA_41C HPUE Ant1 Default								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
39750	39948	QPSK	1	99	1	0	25.68	27.00
40185	40383	QPSK	1	99	1	0	25.51	27.00
40620	40818	QPSK	1	99	1	0	25.74	27.00
41055	41253	QPSK	1	99	1	0	25.63	27.00
41490	41292	QPSK	1	0	1	99	25.55	27.00

CA_41C Ant6 Default								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
39750	39948	QPSK	1	99	1	0	21.35	23.00
40185	40383	QPSK	1	99	1	0	21.41	23.00
40620	40818	QPSK	1	99	1	0	21.48	23.00
41055	41253	QPSK	1	99	1	0	21.25	23.00
41490	41292	QPSK	1	0	1	99	21.41	23.00

CA_41C HPUE Ant6 Default								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
39750	39948	QPSK	1	99	1	0	24.42	26.00
40185	40383	QPSK	1	99	1	0	24.33	26.00
40620	40818	QPSK	1	99	1	0	24.56	26.00
41055	41253	QPSK	1	99	1	0	24.38	26.00
41490	41292	QPSK	1	0	1	99	24.46	26.00

CA_41C Ant3 Default								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
39750	39948	QPSK	1	99	1	0	18.75	20.00
40185	40383	QPSK	1	99	1	0	18.68	20.00
40620	40818	QPSK	1	99	1	0	18.88	20.00
41055	41253	QPSK	1	99	1	0	18.85	20.00
41490	41292	QPSK	1	0	1	99	18.76	20.00

CA_41C HPUE Ant3 Default								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
39750	39948	QPSK	1	99	1	0	22.28	23.00
40185	40383	QPSK	1	99	1	0	22.29	23.00
40620	40818	QPSK	1	99	1	0	22.35	23.00
41055	41253	QPSK	1	99	1	0	22.17	23.00
41490	41292	QPSK	1	0	1	99	22.24	23.00

CA_48C Ant7 Default								
Combination 20MHz+20MHz (1RB+99RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
55340	55538	QPSK	1	99	1	0	22.09	23.50
55830	56028	QPSK	1	99	1	0	22.26	23.50
56150	56348	QPSK	1	99	1	0	22.20	23.50
56640	56442	QPSK	1	0	1	99	22.09	23.50

CA_48C Ant4 Default								
Combination 20MHz+20MHz (1RB+99RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
55340	55538	QPSK	1	99	1	0	22.32	24.00
55830	56028	QPSK	1	99	1	0	22.49	24.00
56150	56348	QPSK	1	99	1	0	22.33	24.00
56640	56442	QPSK	1	0	1	99	22.27	24.00

CA_48C Ant8 Default								
Combination 20MHz+20MHz (1RB+99RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
55340	55538	QPSK	1	99	1	0	22.11	23.00
55830	56028	QPSK	1	99	1	0	22.29	23.00
56150	56348	QPSK	1	99	1	0	22.07	23.00
56640	56442	QPSK	1	0	1	99	22.14	23.00

CA_48C Ant9 Default								
Combination 20MHz+20MHz (1RB+99RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
55340	55538	QPSK	1	99	1	0	22.88	24.00
55830	56028	QPSK	1	99	1	0	23.07	24.00
56150	56348	QPSK	1	99	1	0	22.89	24.00
56640	56442	QPSK	1	0	1	99	22.93	24.00

CA_48B Ant7 Default								
Combination 15MHz+5MHz (75RB+25RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
55315	55408	QPSK	1	74	1	0	21.88	23.50
55820	55913	QPSK	1	74	1	0	22.02	23.50
56160	56253	QPSK	1	74	1	0	21.98	23.50
56665	56572	QPSK	1	0	1	24	21.85	23.50

CA_48B Ant4 Default								
Combination 15MHz+5MHz (75RB+25RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
55315	55408	QPSK	1	74	1	0	22.11	24.00
55820	55913	QPSK	1	74	1	0	22.28	24.00
56160	56253	QPSK	1	74	1	0	22.09	24.00
56665	56572	QPSK	1	0	1	24	22.09	24.00

CA_48B Ant8 Default								
Combination 15MHz+5MHz (75RB+25RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
55315	55408	QPSK	1	74	1	0	21.77	23.00
55820	55913	QPSK	1	74	1	0	22.02	23.00
56160	56253	QPSK	1	74	1	0	21.79	23.00
56665	56572	QPSK	1	0	1	24	21.86	23.00

CA_48B Ant9 Default								
Combination 15MHz+5MHz (75RB+25RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
55315	55408	QPSK	1	74	1	0	22.6	24.00
55820	55913	QPSK	1	74	1	0	22.76	24.00
56160	56253	QPSK	1	74	1	0	22.57	24.00
56665	56572	QPSK	1	0	1	24	22.6	24.00

CA_41C Ant3 DSI2								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
39750	39948	QPSK	1	99	1	0	16.72	18.00
40185	40383	QPSK	1	99	1	0	16.75	18.00
40620	40818	QPSK	1	99	1	0	16.83	18.00
41055	41253	QPSK	1	99	1	0	16.72	18.00
41490	41292	QPSK	1	0	1	99	16.77	18.00

CA_41C HPUE Ant3 DSI2								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
39750	39948	QPSK	1	99	1	0	18.32	19.60
40185	40383	QPSK	1	99	1	0	18.37	19.60
40620	40818	QPSK	1	99	1	0	18.56	19.60
41055	41253	QPSK	1	99	1	0	18.49	19.60
41490	41292	QPSK	1	0	1	99	18.35	19.60

CA_48C Ant7 DSI2								
Combination 20MHz+20MHz (1RB+99RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
55340	55538	QPSK	1	99	1	0	16.22	16.50
55830	56028	QPSK	1	99	1	0	16.32	16.50
56150	56348	QPSK	1	99	1	0	16.19	16.50
56640	56442	QPSK	1	0	1	99	16.22	16.50

CA_48C Ant4 DSI2								
Combination 20MHz+20MHz (1RB+99RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
55340	55538	QPSK	1	99	1	0	22.32	24.00
55830	56028	QPSK	1	99	1	0	22.49	24.00
56150	56348	QPSK	1	99	1	0	22.33	24.00
56640	56442	QPSK	1	0	1	99	22.27	24.00

CA_48C Ant8 DSI2								
Combination 20MHz+20MHz (1RB+99RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
55340	55538	QPSK	1	99	1	0	15.22	16.50
55830	56028	QPSK	1	99	1	0	15.24	16.50
56150	56348	QPSK	1	99	1	0	15.31	16.50
56640	56442	QPSK	1	0	1	99	15.29	16.50

CA_48C Ant9 DSI2								
Combination 20MHz+20MHz (1RB+99RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
55340	55538	QPSK	1	99	1	0	22.88	24.00
55830	56028	QPSK	1	99	1	0	23.07	24.00
56150	56348	QPSK	1	99	1	0	22.89	24.00
56640	56442	QPSK	1	0	1	99	22.93	24.00

CA_48B Ant7 DSI2								
Combination 15MHz+5MHz (75RB+25RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
55315	55408	QPSK	1	74	1	0	15.9	16.50
55820	55913	QPSK	1	74	1	0	16.04	16.50
56160	56253	QPSK	1	74	1	0	15.85	16.50
56665	56572	QPSK	1	0	1	24	15.89	16.50

CA_48B Ant4 DSI2								
Combination 15MHz+5MHz (75RB+25RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
55315	55408	QPSK	1	74	1	0	22.11	24.00
55820	55913	QPSK	1	74	1	0	22.28	24.00
56160	56253	QPSK	1	74	1	0	22.09	24.00
56665	56572	QPSK	1	0	1	24	22.09	24.00

CA_48B Ant8 DSI2								
Combination 15MHz+5MHz (75RB+25RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
55315	55408	QPSK	1	74	1	0	14.86	16.50
55820	55913	QPSK	1	74	1	0	14.98	16.50
56160	56253	QPSK	1	74	1	0	14.99	16.50
56665	56572	QPSK	1	0	1	24	15.01	16.50

CA_48B Ant9 DSI2								
Combination 15MHz+5MHz (75RB+25RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
55315	55408	QPSK	1	74	1	0	22.6	24.00
55820	55913	QPSK	1	74	1	0	22.76	24.00
56160	56253	QPSK	1	74	1	0	22.57	24.00
56665	56572	QPSK	1	0	1	24	22.6	24.00

CA_41C Ant3 DSI3								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
39750	39948	QPSK	1	99	1	0	18.75	20.00
40185	40383	QPSK	1	99	1	0	18.68	20.00
40620	40818	QPSK	1	99	1	0	18.88	20.00
41055	41253	QPSK	1	99	1	0	18.85	20.00
41490	41292	QPSK	1	0	1	99	18.76	20.00

CA_41C HPUE Ant3 DSI3								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
39750	39948	QPSK	1	99	1	0	20.11	21.70
40185	40383	QPSK	1	99	1	0	20.09	21.70
40620	40818	QPSK	1	99	1	0	20.28	21.70
41055	41253	QPSK	1	99	1	0	20.21	21.70
41490	41292	QPSK	1	0	1	99	20.15	21.70

CA_48C Ant7 DSI3								
Combination 20MHz+20MHz (1RB+99RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
55340	55538	QPSK	1	99	1	0	17.21	18.60
55830	56028	QPSK	1	99	1	0	17.32	18.60
56150	56348	QPSK	1	99	1	0	17.26	18.60
56640	56442	QPSK	1	0	1	99	17.24	18.60

CA_48C Ant4 DSI3								
Combination 20MHz+20MHz (1RB+99RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
55340	55538	QPSK	1	99	1	0	16.12	17.30
55830	56028	QPSK	1	99	1	0	16.45	17.30
56150	56348	QPSK	1	99	1	0	16.21	17.30
56640	56442	QPSK	1	0	1	99	16.12	17.30

CA_48C Ant8 DSI3								
Combination 20MHz+20MHz (1RB+99RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
55340	55538	QPSK	1	99	1	0	15.88	17.10
55830	56028	QPSK	1	99	1	0	16.01	17.10
56150	56348	QPSK	1	99	1	0	15.72	17.10
56640	56442	QPSK	1	0	1	99	15.84	17.10

CA_48C Ant9 DSI3								
Combination 20MHz+20MHz (1RB+99RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
55340	55538	QPSK	1	99	1	0	22.15	23.50
55830	56028	QPSK	1	99	1	0	22.38	23.50
56150	56348	QPSK	1	99	1	0	22.17	23.50
56640	56442	QPSK	1	0	1	99	22.14	23.50

CA_5B Ant0 DSI7								
Combination 10MHz+10MHz (50RB+50RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
20450	20549	QPSK	1	49	1	0	22.61	24.00
20476	20575	QPSK	1	49	1	0	22.75	24.00
20600	20501	QPSK	1	0	1	49	22.63	24.00

CA_5B Ant1 DSI7								
Combination 10MHz+10MHz (50RB+50RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
20450	20549	QPSK	1	49	1	0	20.55	22.30
20476	20575	QPSK	1	49	1	0	20.65	22.30
20600	20501	QPSK	1	0	1	49	20.49	22.30

CA_38C Ant9 DSI7								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
37850	38048	QPSK	1	99	1	0	21.25	22.30
37901	38099	QPSK	1	99	1	0	21.32	22.30
38150	37952	QPSK	1	0	1	99	21.12	22.30

CA_38C Ant1 DSI7								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
37850	38048	QPSK	1	99	1	0	11.54	12.00
37901	38099	QPSK	1	99	1	0	11.69	12.00
38150	37952	QPSK	1	0	1	99	11.52	12.00

CA_41C Ant9 DSI7								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
39750	39948	QPSK	1	99	1	0	21.35	22.30
40185	40383	QPSK	1	99	1	0	21.51	22.30
40620	40818	QPSK	1	99	1	0	21.62	22.30
41055	41253	QPSK	1	99	1	0	21.49	22.30
41490	41292	QPSK	1	0	1	99	21.35	22.30

CA_41C HPUE Ant9 DSI7								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
39750	39948	QPSK	1	99	1	0	23.05	23.90
40185	40383	QPSK	1	99	1	0	23.06	23.90
40620	40818	QPSK	1	99	1	0	23.15	23.90
41055	41253	QPSK	1	99	1	0	23.13	23.90
41490	41292	QPSK	1	0	1	99	23.07	23.90

CA_41C Ant1 DSI7								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
39750	39948	QPSK	1	99	1	0	11.62	12.00
40185	40383	QPSK	1	99	1	0	11.71	12.00
40620	40818	QPSK	1	99	1	0	11.75	12.00
41055	41253	QPSK	1	99	1	0	11.62	12.00
41490	41292	QPSK	1	0	1	99	11.54	12.00

CA_41C HPUE Ant1 DSI7								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
39750	39948	QPSK	1	99	1	0	13.21	13.60
40185	40383	QPSK	1	99	1	0	13.32	13.60
40620	40818	QPSK	1	99	1	0	13.35	13.60
41055	41253	QPSK	1	99	1	0	13.27	13.60
41490	41292	QPSK	1	0	1	99	13.26	13.60

CA_41C Ant6 DSI7								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
39750	39948	QPSK	1	99	1	0	18.71	20.20
40185	40383	QPSK	1	99	1	0	18.82	20.20
40620	40818	QPSK	1	99	1	0	18.84	20.20
41055	41253	QPSK	1	99	1	0	18.79	20.20
41490	41292	QPSK	1	0	1	99	18.54	20.20

CA_41C HPUE Ant6 DSI7								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
39750	39948	QPSK	1	99	1	0	20.33	21.80
40185	40383	QPSK	1	99	1	0	20.41	21.80
40620	40818	QPSK	1	99	1	0	20.53	21.80
41055	41253	QPSK	1	99	1	0	20.37	21.80
41490	41292	QPSK	1	0	1	99	20.12	21.80

CA_5B Ant0 DSI6								
Combination 10MHz+10MHz (50RB+50RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
20450	20549	QPSK	1	49	1	0	22.61	24.00
20476	20575	QPSK	1	49	1	0	22.75	24.00
20600	20501	QPSK	1	0	1	49	22.63	24.00

CA_5B Ant1 DSI6								
Combination 10MHz+10MHz (50RB+50RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
20450	20549	QPSK	1	49	1	0	22.51	24.00
20476	20575	QPSK	1	49	1	0	22.62	24.00
20600	20501	QPSK	1	0	1	49	22.55	24.00

CA_38C Ant9 DSI6								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
37850	38048	QPSK	1	99	1	0	23.21	24.00
37901	38099	QPSK	1	99	1	0	23.29	24.00
38150	37952	QPSK	1	0	1	99	23.16	24.00

CA_38C Ant1 DSI6								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
37850	38048	QPSK	1	99	1	0	19.91	21.10
37901	38099	QPSK	1	99	1	0	20.01	21.10
38150	37952	QPSK	1	0	1	99	19.75	21.10

CA_41C Ant9 DSI6								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
39750	39948	QPSK	1	99	1	0	22.59	24.00
40185	40383	QPSK	1	99	1	0	22.54	24.00
40620	40818	QPSK	1	99	1	0	22.87	24.00
41055	41253	QPSK	1	99	1	0	22.64	24.00
41490	41292	QPSK	1	0	1	99	22.54	24.00

CA_41C HPUE Ant9 DSI6								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
39750	39948	QPSK	1	99	1	0	24.62	25.60
40185	40383	QPSK	1	99	1	0	24.71	25.60
40620	40818	QPSK	1	99	1	0	24.63	25.60
41055	41253	QPSK	1	99	1	0	24.59	25.60
41490	41292	QPSK	1	0	1	99	24.55	25.60

CA_41C Ant3 DS17								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
39750	39948	QPSK	1	99	1	0	16.68	18.30
40185	40383	QPSK	1	99	1	0	16.92	18.30
40620	40818	QPSK	1	99	1	0	17.05	18.30
41055	41253	QPSK	1	99	1	0	16.84	18.30
41490	41292	QPSK	1	0	1	99	16.74	18.30

CA_41C HPUE Ant3 DS17								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
39750	39948	QPSK	1	99	1	0	18.35	19.90
40185	40383	QPSK	1	99	1	0	18.51	19.90
40620	40818	QPSK	1	99	1	0	18.62	19.90
41055	41253	QPSK	1	99	1	0	18.44	19.90
41490	41292	QPSK	1	0	1	99	18.32	19.90

CA_48C Ant7 DS17								
Combination 20MHz+20MHz (1RB+99RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
55340	55538	QPSK	1	99	1	0	12.71	14.70
55830	56028	QPSK	1	99	1	0	12.89	14.70
56150	56348	QPSK	1	99	1	0	12.79	14.70
56640	56442	QPSK	1	0	1	99	12.85	14.70

CA_48C Ant4 DS17								
Combination 20MHz+20MHz (1RB+99RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
55340	55538	QPSK	1	99	1	0	15.22	16.40
55830	56028	QPSK	1	99	1	0	15.32	16.40
56150	56348	QPSK	1	99	1	0	15.16	16.40
56640	56442	QPSK	1	0	1	99	15.11	16.40

CA_48C Ant8 DS17								
Combination 20MHz+20MHz (1RB+99RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
55340	55538	QPSK	1	99	1	0	13.23	14.00
55830	56028	QPSK	1	99	1	0	13.32	14.00
56150	56348	QPSK	1	99	1	0	13.15	14.00
56640	56442	QPSK	1	0	1	99	13.21	14.00

CA_48C Ant9 DS17								
Combination 20MHz+20MHz (1RB+99RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
55340	55538	QPSK	1	99	1	0	22.15	23.50
55830	56028	QPSK	1	99	1	0	22.38	23.50
56150	56348	QPSK	1	99	1	0	22.17	23.50
56640	56442	QPSK	1	0	1	99	22.14	23.50

CA_48B Ant7 DS17								
Combination 15MHz+5MHz (75RB+25RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
55315	55408	QPSK	1	74	1	0	12.74	14.70
55820	55913	QPSK	1	74	1	0	12.73	14.70
56160	56253	QPSK	1	74	1	0	12.78	14.70
56665	56572	QPSK	1	0	1	24	12.75	14.70

CA_48B Ant4 DS17								
Combination 15MHz+5MHz (75RB+25RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
55315	55408	QPSK	1	74	1	0	14.95	16.40
55820	55913	QPSK	1	74	1	0	15.02	16.40
56160	56253	QPSK	1	74	1	0	14.83	16.40
56665	56572	QPSK	1	0	1	24	14.75	16.40

CA_48B Ant8 DS17								
Combination 15MHz+5MHz (75RB+25RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
55315	55408	QPSK	1	74	1	0	12.91	14.00
55820	55913	QPSK	1	74	1	0	13.02	14.00
56160	56253	QPSK	1	74	1	0	12.83	14.00
56665	56572	QPSK	1	0	1	24	12.89	14.00

CA_48B Ant9 DS17								
Combination 15MHz+5MHz (75RB+25RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
55315	55408	QPSK	1	74	1	0	21.82	23.50
55820	55913	QPSK	1	74	1	0	22.08	23.50
56160	56253	QPSK	1	74	1	0	21.89	23.50
56665	56572	QPSK	1	0	1	24	21.82	23.50

CA_41C Ant3 DS16								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
39750	39948	QPSK	1	99	1	0	18.75	20.00
40185	40383	QPSK	1	99	1	0	18.68	20.00
40620	40818	QPSK	1	99	1	0	18.88	20.00
41055	41253	QPSK	1	99	1	0	18.85	20.00
41490	41292	QPSK	1	0	1	99	18.76	20.00

CA_41C HPUE Ant3 DS16								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
39750	39948	QPSK	1	99	1	0	22.28	23.00
40185	40383	QPSK	1	99	1	0	22.29	23.00
40620	40818	QPSK	1	99	1	0	22.35	23.00
41055	41253	QPSK	1	99	1	0	22.17	23.00
41490	41292	QPSK	1	0	1	99	22.24	23.00

CA_48C Ant7 DS16								
Combination 20MHz+20MHz (1RB+99RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
55340	55538	QPSK	1	99	1	0	18.44	20.20
55830	56028	QPSK	1	99	1	0	18.56	20.20
56150	56348	QPSK	1	99	1	0	18.51	20.20
56640	56442	QPSK	1	0	1	99	18.38	20.20

CA_48C Ant4 DS16								
Combination 20MHz+20MHz (1RB+99RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
55340	55538	QPSK	1	99	1	0	20.71	22.20
55830	56028	QPSK	1	99	1	0	20.83	22.20
56150	56348	QPSK	1	99	1	0	20.72	22.20
56640	56442	QPSK	1	0	1	99	20.68	22.20

CA_48C Ant8 DS16								
Combination 20MHz+20MHz (1RB+99RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
55340	55538	QPSK	1	99	1	0	21.26	22.60
55830	56028	QPSK	1	99	1	0	21.31	22.60
56150	56348	QPSK	1	99	1	0	21.19	22.60
56640	56442	QPSK	1	0	1	99	21.06	22.60

CA_48C Ant9 DS16								
Combination 20MHz+20MHz (1RB+99RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
55340	55538	QPSK	1	99	1	0	22.02	23.40
55830	56028	QPSK	1	99	1	0	22.03	23.40
56150	56348	QPSK	1	99	1	0	22.01	23.40
56640	56442	QPSK	1	0	1	99	21.95	23.40