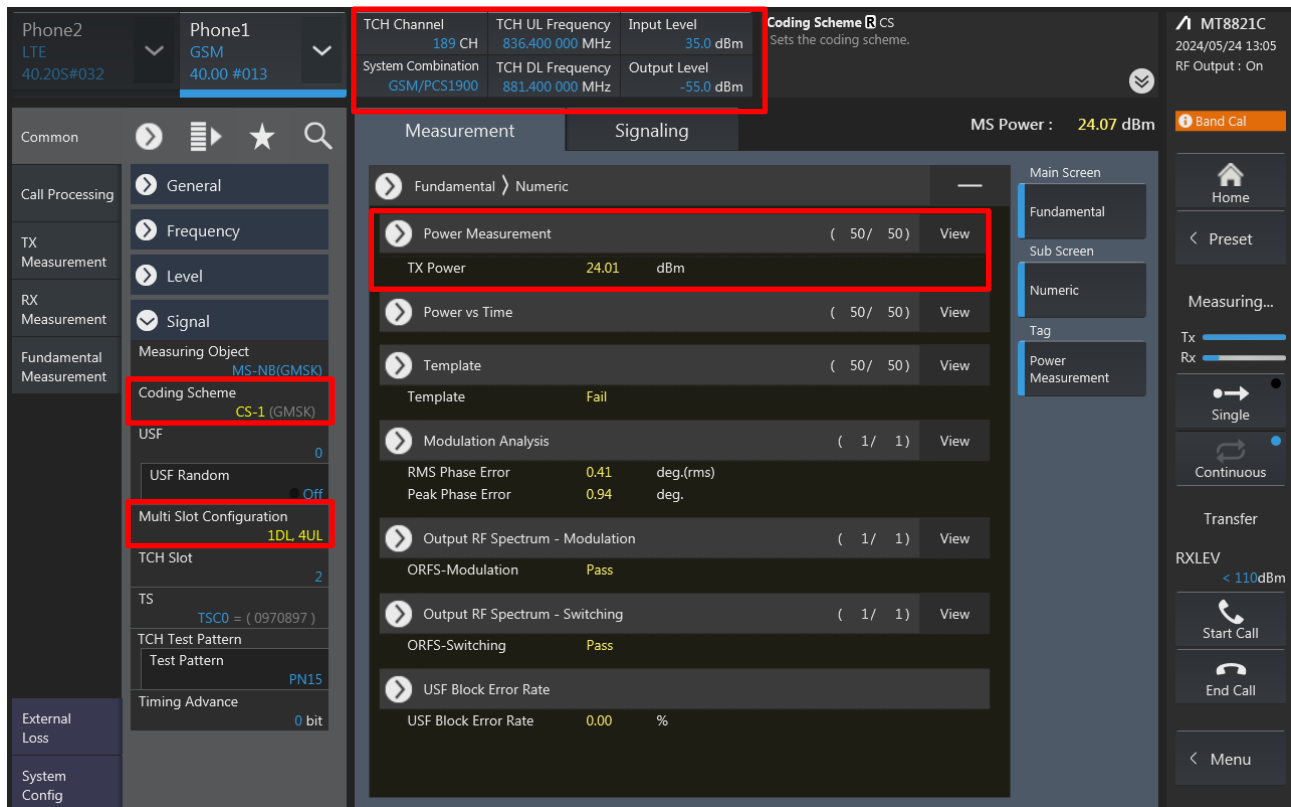


Power measurement connection diagram:

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.

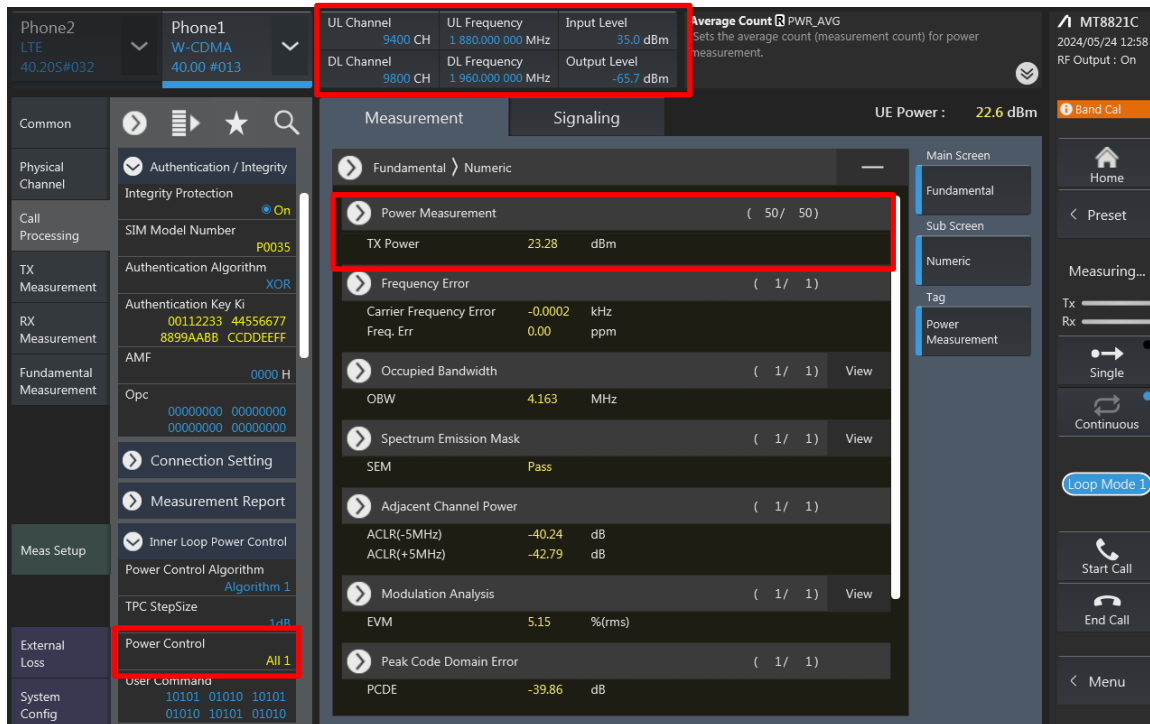
<GSM>



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

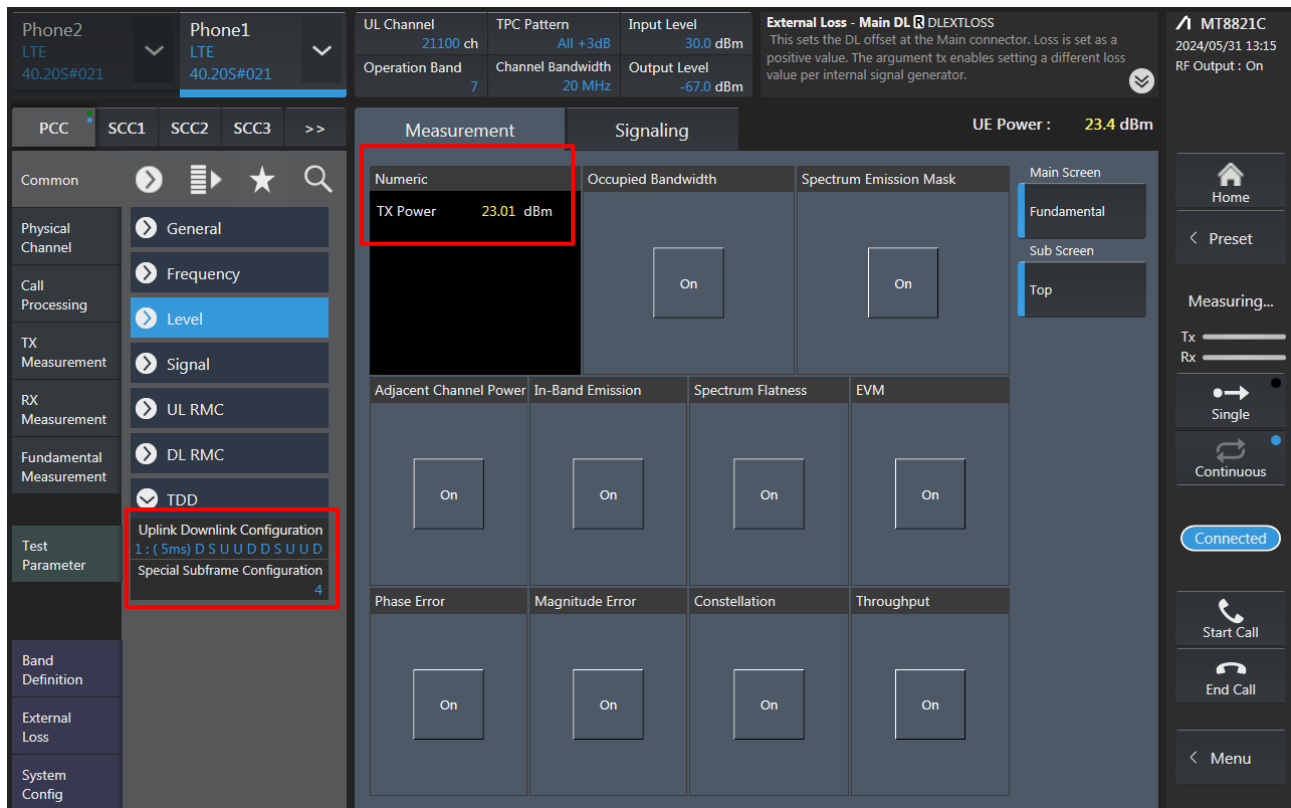
- Top Bar:** Shows Phone2 (LTE, 40.205#032) and Phone1 (GSM, 40.00 #013). The TCH Channel is 189 CH, TCH UL Frequency is 836.400 000 MHz, Input Level is 35.0 dBm, and TCH DL Frequency is 881.400 000 MHz. The Coding Scheme is CS.
- Left Sidebar:** Contains navigation options like Call Processing, TX Measurement, RX Measurement, Fundamental Measurement, and External Loss.
- Main Area:**
 - Measurement Tab:** Displays various measurement results. The 'Power Measurement' section shows TX Power as 24.01 dBm. Other sections include Power vs Time, Template, Modulation Analysis, Output RF Spectrum - Modulation, Output RF Spectrum - Switching, and USF Block Error Rate.
 - Signaling Tab:** Currently inactive.
- Right Sidebar:** Includes a 'Band Cal' button, a 'Main Screen' dropdown menu, and a 'Transfer' button.

<WCDMA>



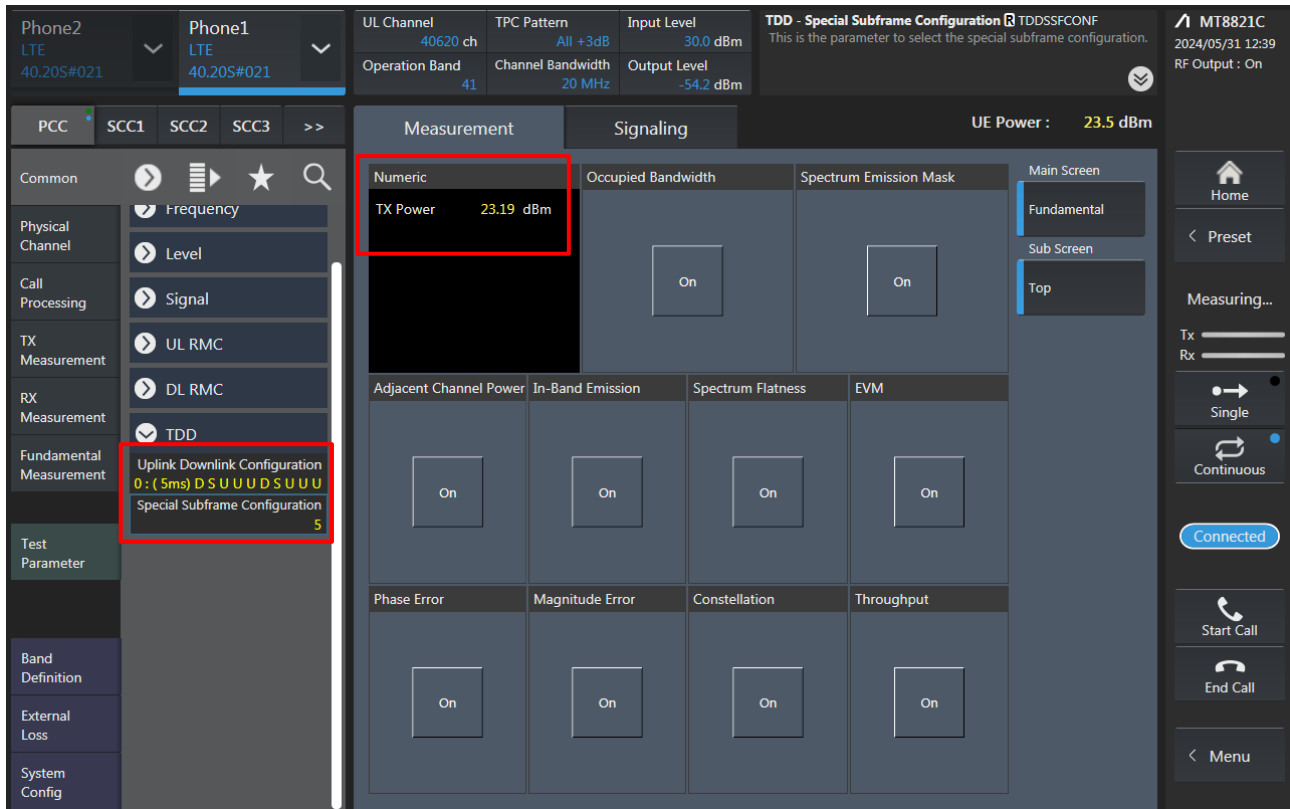
The screenshot shows the WCDMA measurement interface. The top bar displays 'Phone2 LTE 40.20S#032' and 'Phone1 W-CDMA 40.00 #013'. The 'Measurement' tab is active, showing 'Fundamental' and 'Numeric' views. The 'Power Measurement' section is highlighted with a red box, showing 'TX Power' at 23.28 dBm. 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 'Common' sidebar on the left includes sections for Physical Channel, Call Processing, TX Measurement, RX Measurement, Fundamental Measurement, Meas Setup, External Loss, and System Config. The 'Meas Setup' section is expanded, showing 'Authentication / Integrity', 'SIM Model Number', 'Authentication Algorithm', 'Authentication Key Ki', 'AMF', 'Opc', 'Connection Setting', 'Measurement Report', 'Inner Loop Power Control', 'Power Control Algorithm', 'TPC StepSize', 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 '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 'Common' sidebar on the left includes sections for Physical Channel, Call Processing, TX Measurement, RX Measurement, Fundamental Measurement, Meas Setup, External Loss, and System Config. The 'Meas Setup' section is expanded, showing 'General', 'Frequency', 'Level', 'Signal', 'UL RMC', 'DL RMC', 'TDD', 'Uplink Downlink Configuration', 'Special Subframe Configuration', 'Band Definition', 'External Loss', and 'System Config'. The 'Uplink Downlink Configuration' section is highlighted with a red box, showing '1: (5ms) D S U U D D S U U D' and 'Special Subframe Configuration' at 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

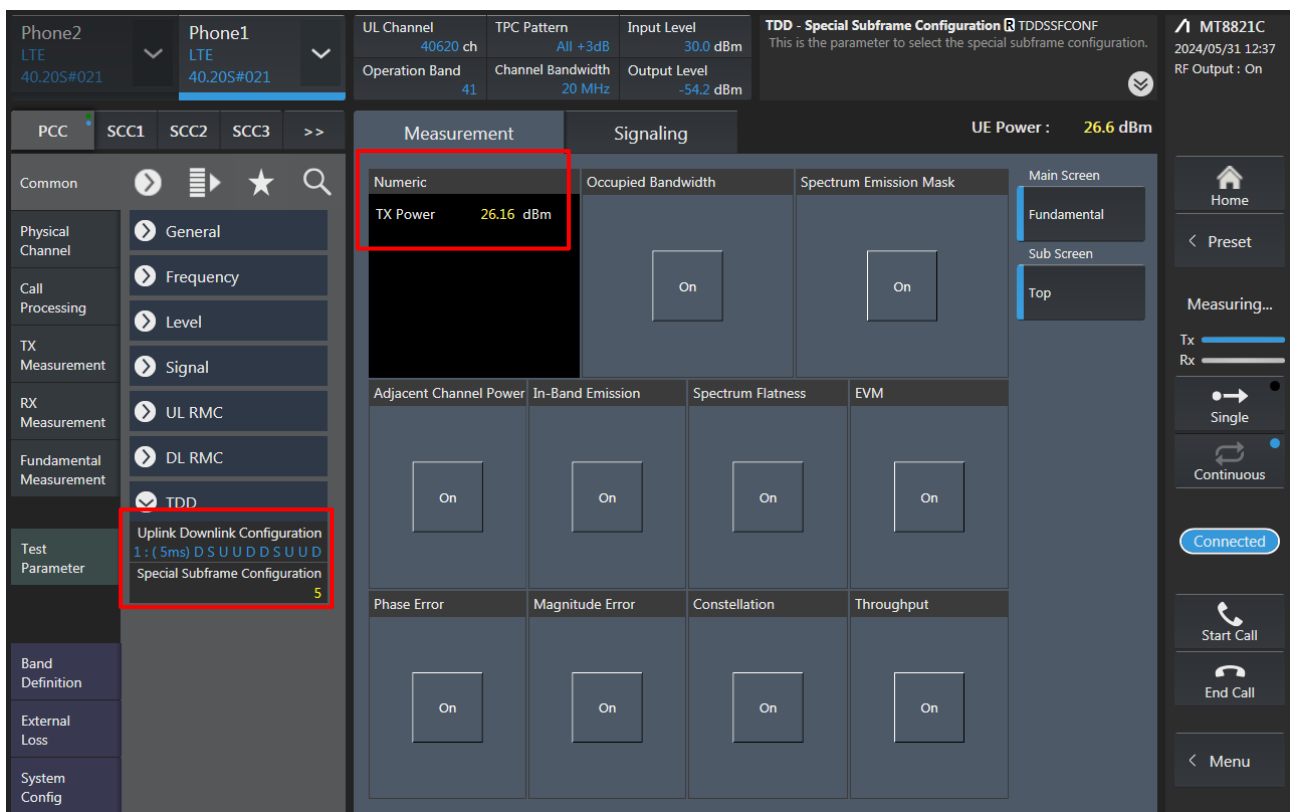
Special Subframe Configuration 5

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

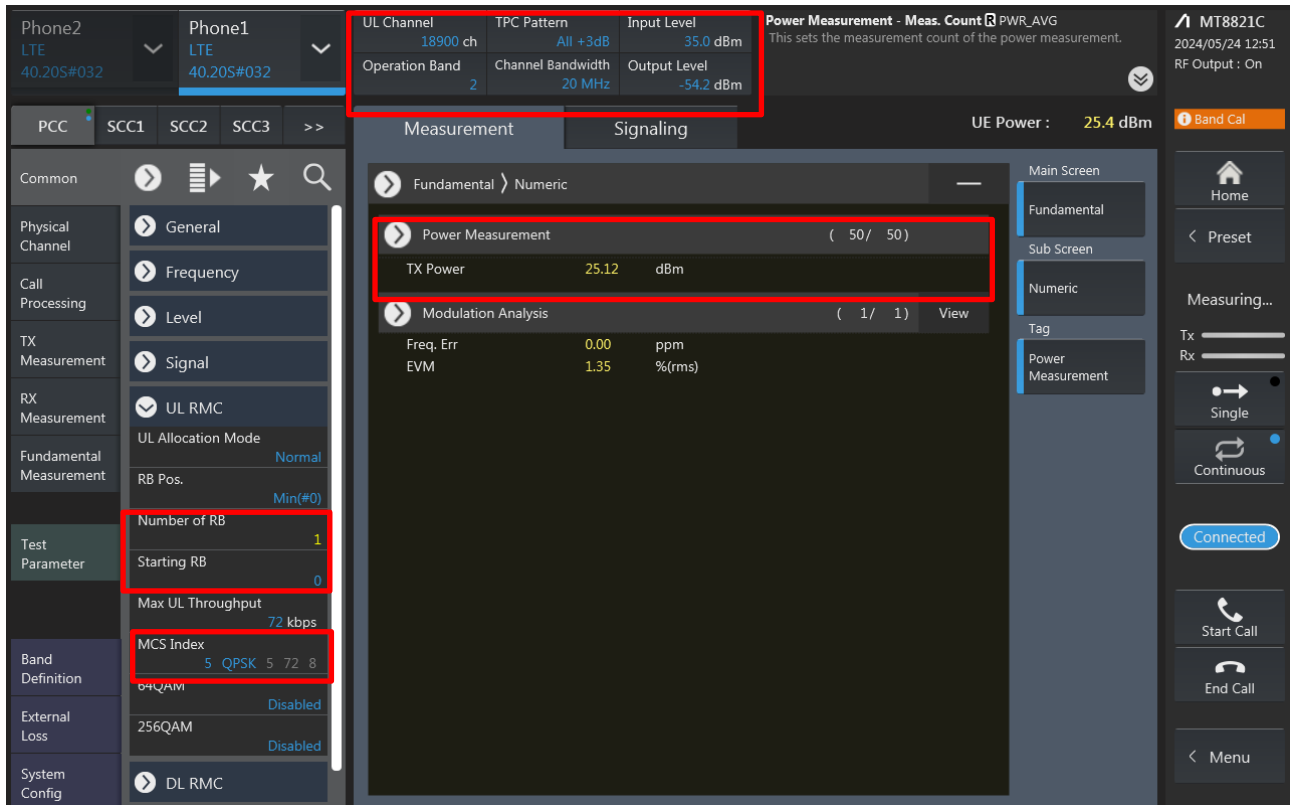
Test Parameter TDD

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

Special Subframe Configuration 5

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

PCC SCC1 SCC2 SCC3 >>

Measurement Signaling

UE Power : 25.4 dBm

Band Cal

Home

Preset

Measuring...

Tx

Rx

Single

Continuous

Connected

Start Call

End Call

Menu

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

256QAM Disabled

256QAM Disabled

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

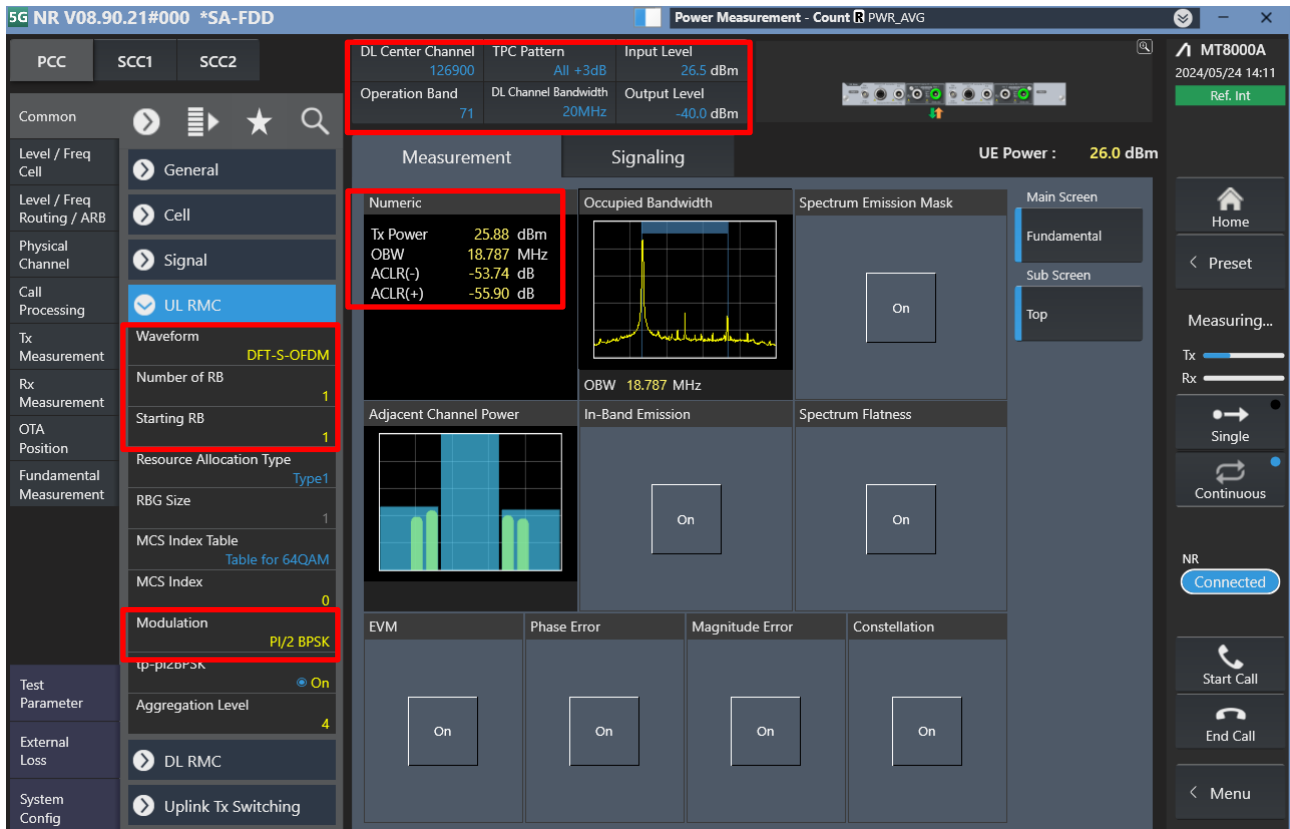
Sub Screen

Numeric

Tag

Power Measurement

<5G NR FR1>



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

Power Measurement - Count PWR_AVG

MT8800A

2024/05/24 14:11

Ref. Int

PCC SCC1 SCC2

Measurement Signaling

UE Power : 26.0 dBm

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

Numeric

Tx Power 25.88 dBm

OBW 18.787 MHz

ACLR(-) -53.74 dB

ACLR(+) -55.90 dB

Occupied Bandwidth

Spectrum Emission Mask

On

Adjacent Channel Power

In-Band Emission

Spectrum Flatness

On

On

EVM

Phase Error

Magnitude Error

Constellation

On

On

On

On

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 PL/2 BPSK

Aggregation Level 4

DL RMC

Uplink Tx Switching

Main Screen

Fundamental

Sub Screen

Top

Home

Preset

Measuring...

Tx

Rx

Single

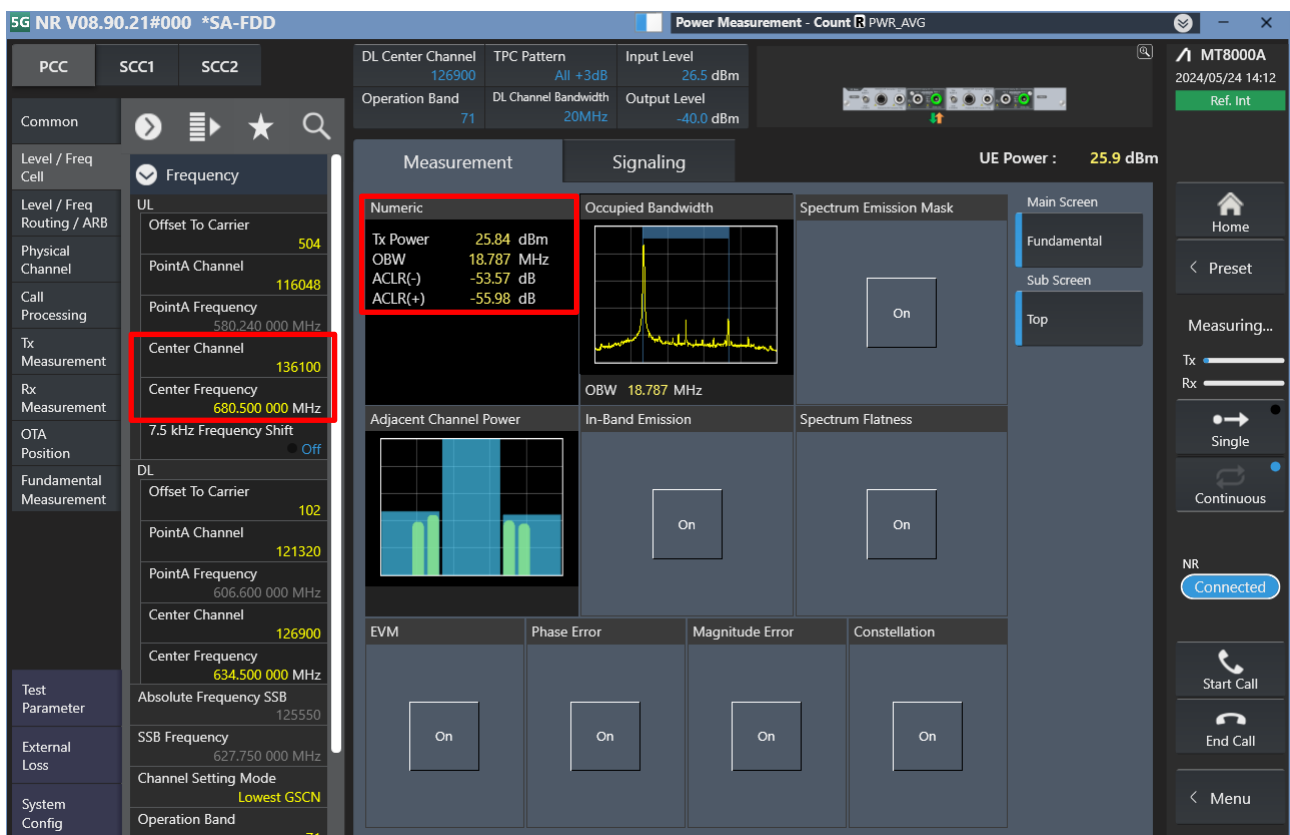
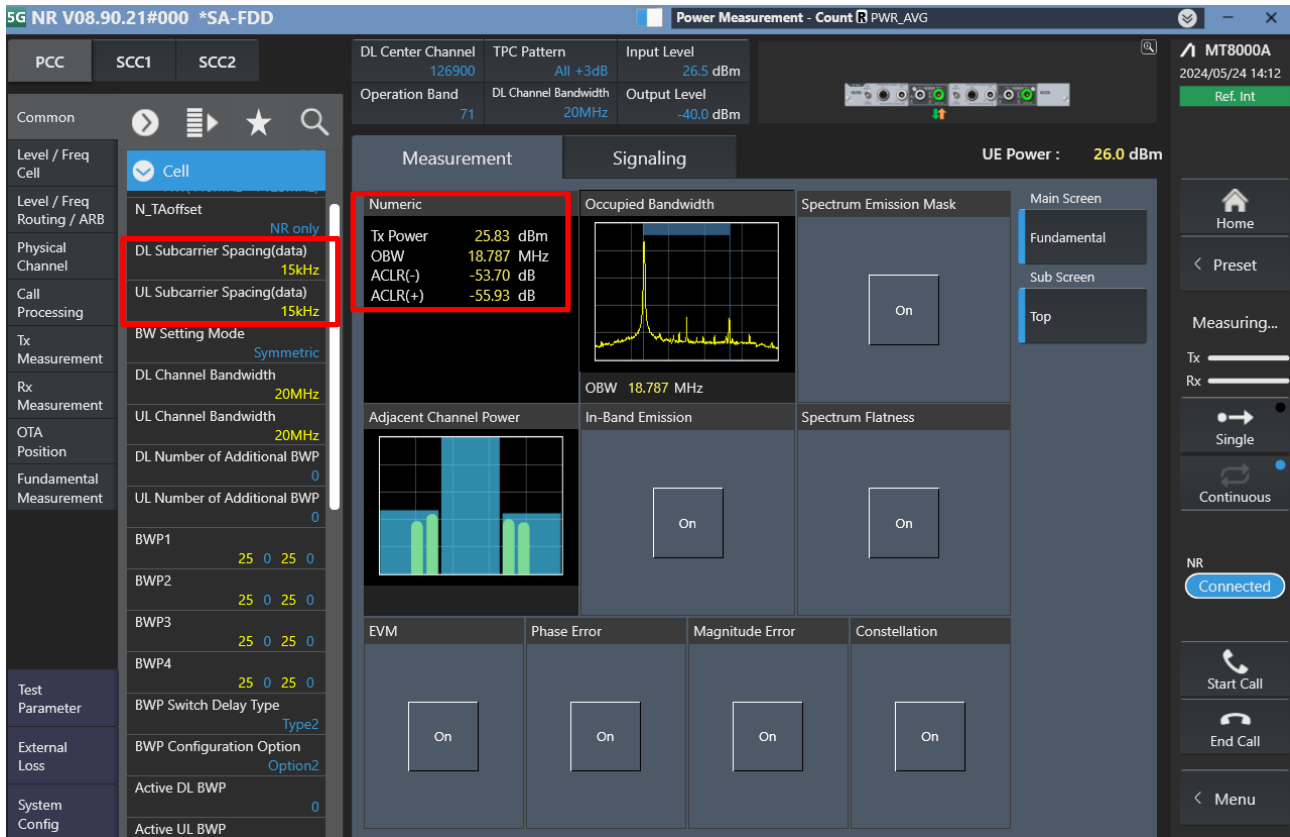
Continuous

Connected

Start Call

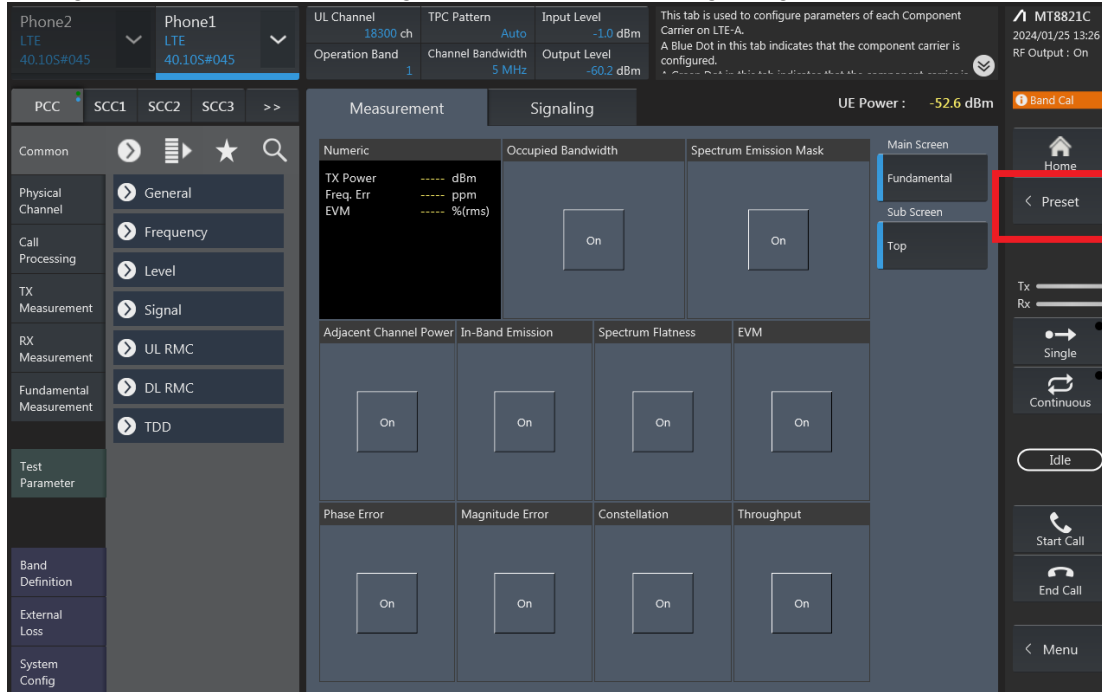
End Call

Menu



LTE Uplink and Downlink Carrier Aggregation configurations:

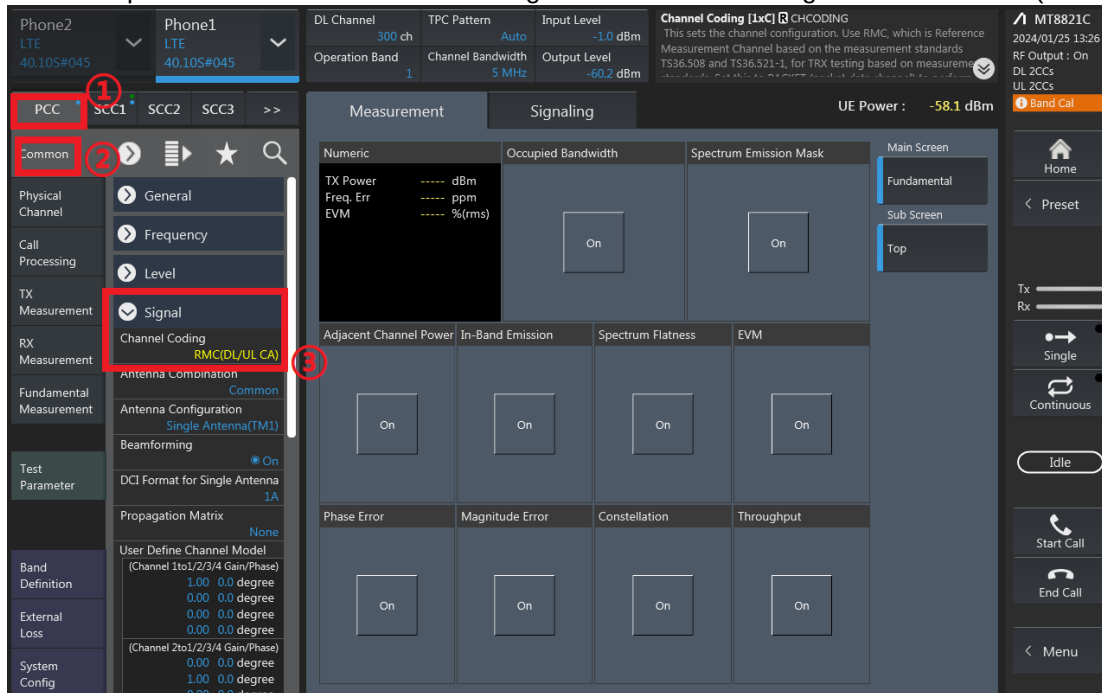
1. Change the Scenario in the Configuration of Phone1 LTE Signaling and Preset.



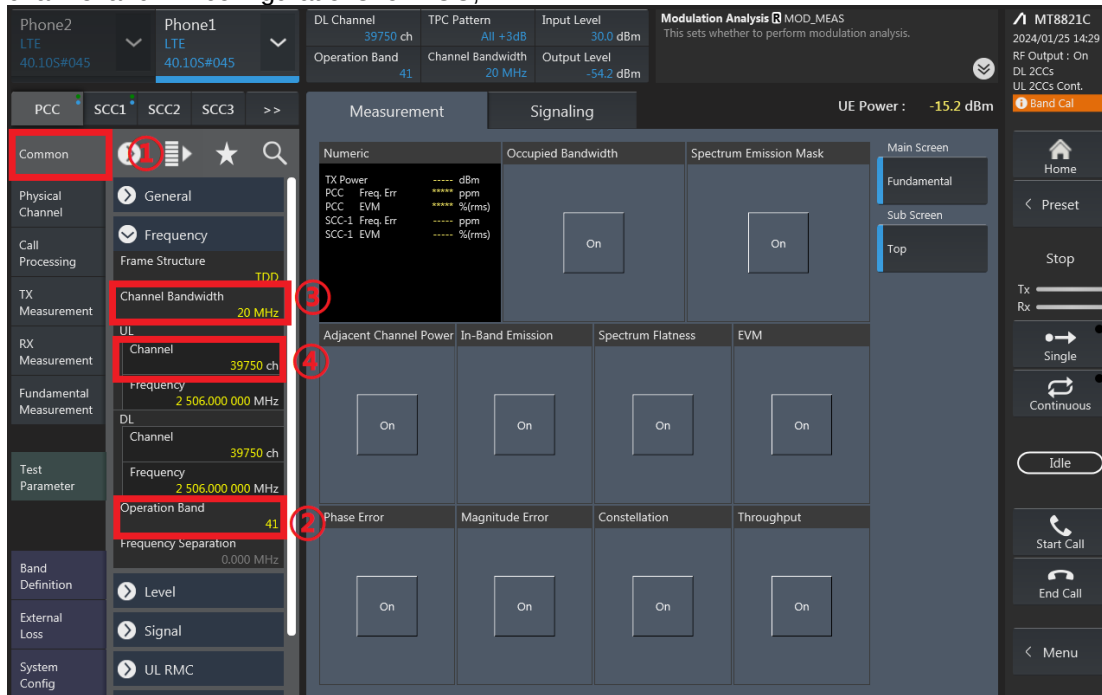
2. If Select "RMC (DL/UL CA)" for Uplink Carrier Aggregation;
If Select "RMC (DL CA)" for Downlink Carrier Aggregation.

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 PPM PCC EVM dBm PPM SCC-1 Freq. Err. dBm PPM SCC-1 EVM dBm PPM

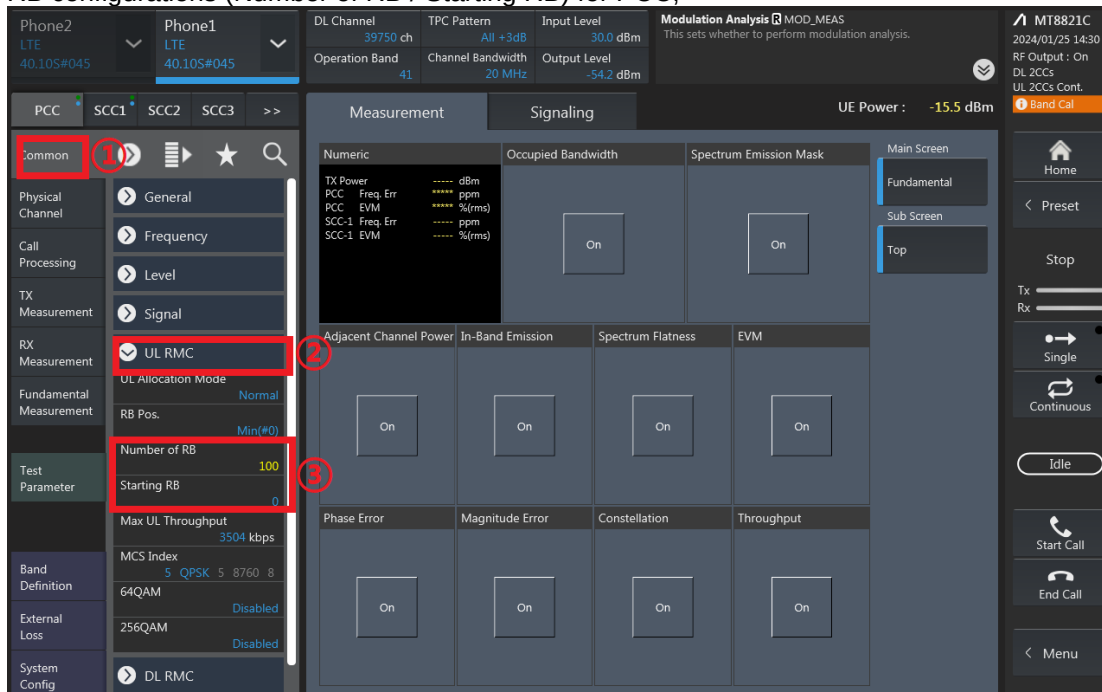
Adjacent Channel Power In-Band Emission Spectrum Flatness EVM

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 PPM PCC EVM dBm PPM SCC-1 Freq. Err. dBm PPM SCC-1 EVM dBm PPM

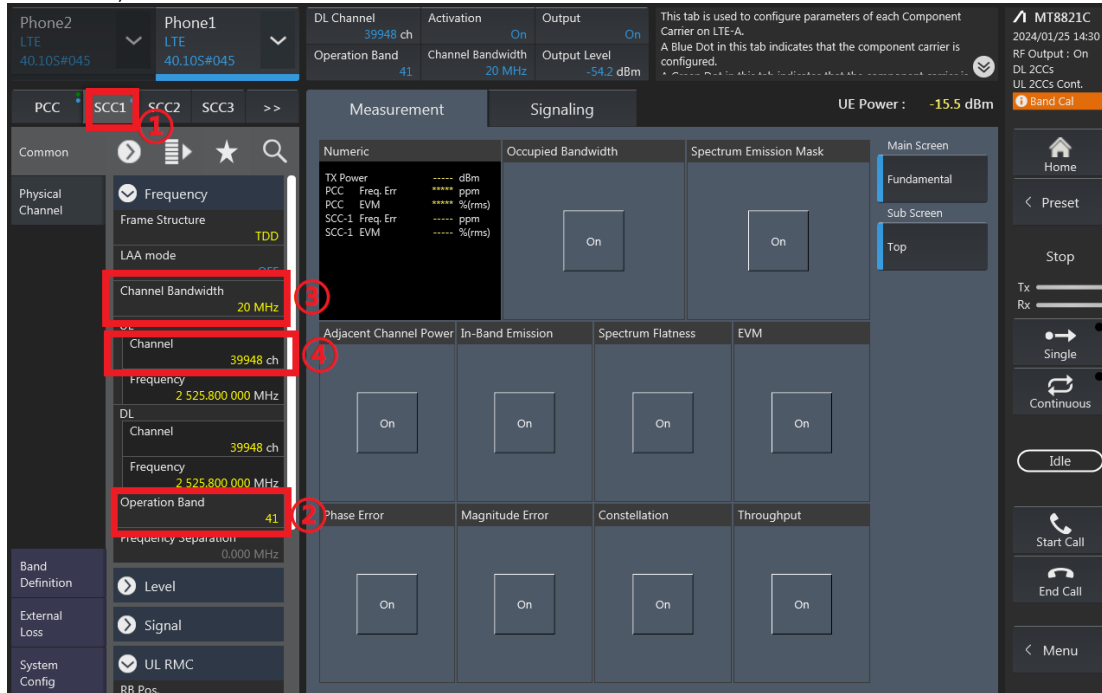
Adjacent Channel Power In-Band Emission Spectrum Flatness EVM

Phase Error Magnitude Error Constellation Throughput

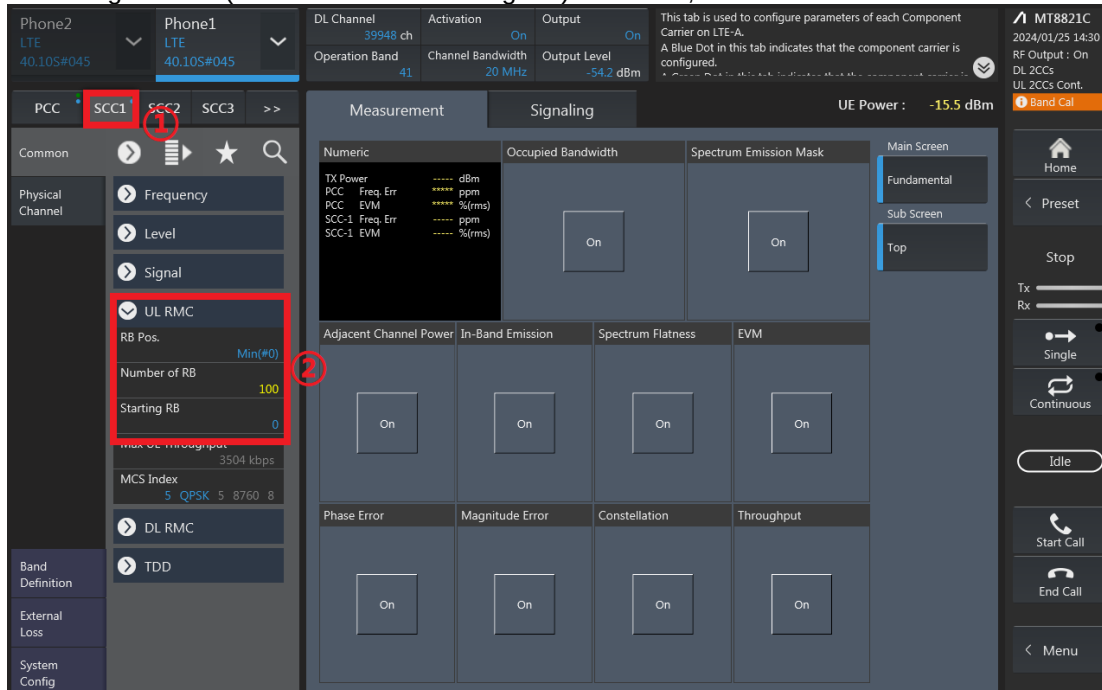
Main Screen Fundamental Sub Screen Top

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

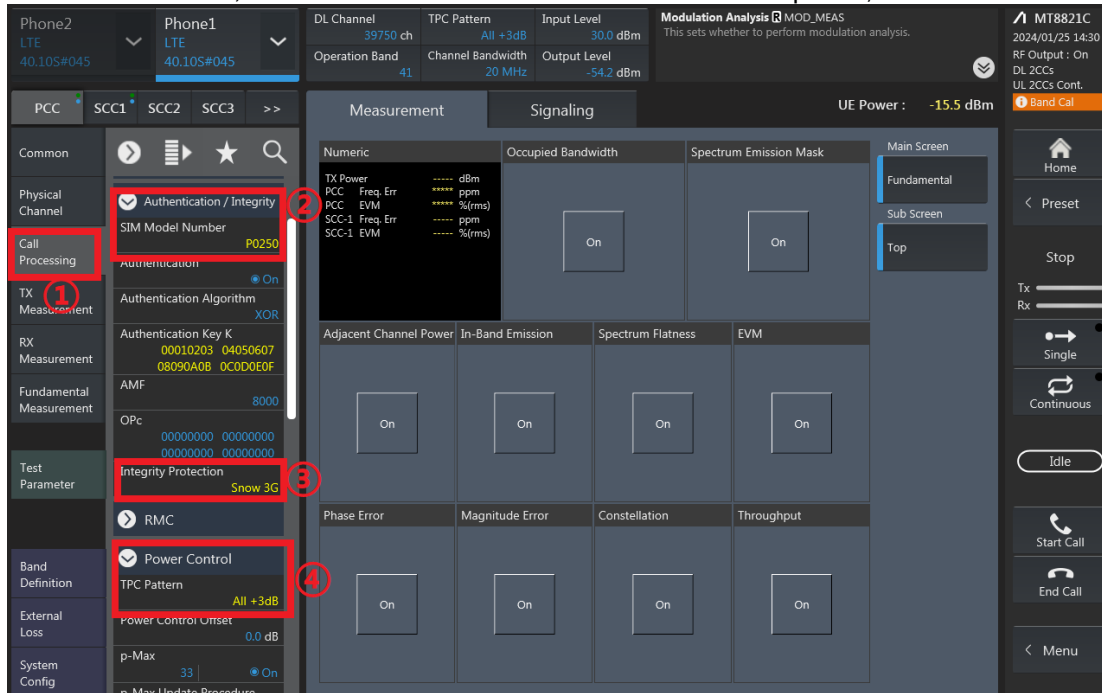
4. SCC parameter Settings: Select the SCC1 tab, Set operating band, BW, channel, and RB configurations for SCC1;



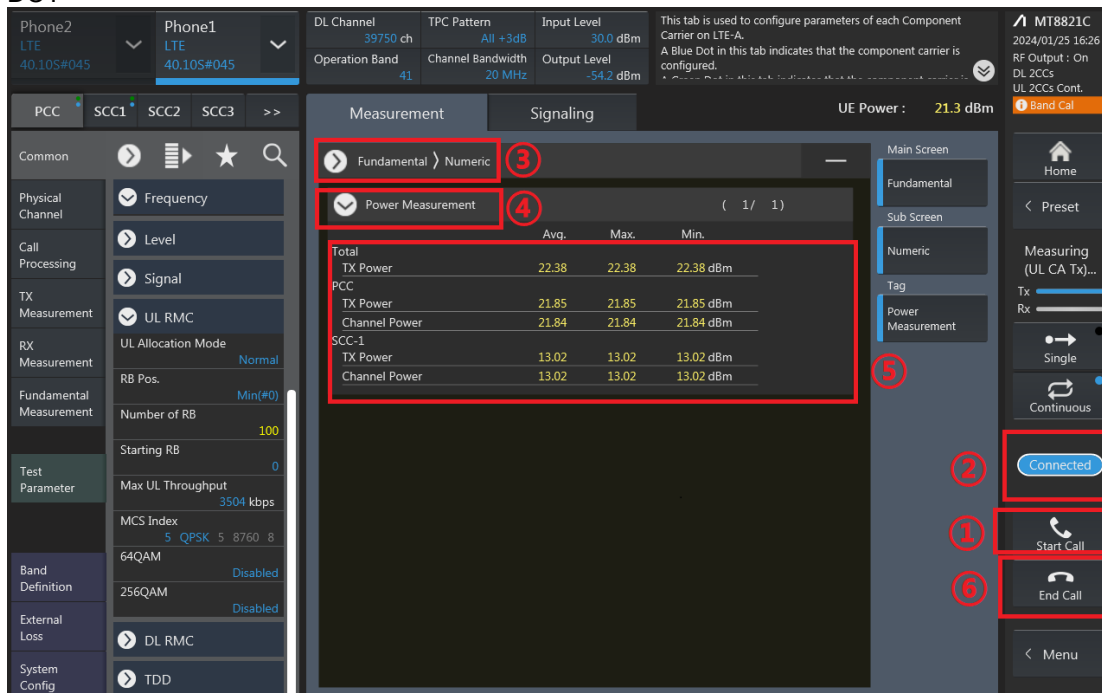
RB configurations (Number of RB / Starting RB) for SCC1;



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



	Avg.	Max.	Min.
Total TX Power	22.38	22.38	22.38 dBm
PCC TX Power	21.85	21.85	21.85 dBm
Channel Power	21.84	21.84	21.84 dBm
SCC-1 TX Power	13.02	13.02	13.02 dBm
Channel Power	13.02	13.02	13.02 dBm

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

UL CA

CA_66B Ant4											
Combination 15MHz+5MHz (75RB+25RB)											
PCC Channel	SCC Channel	Modulation	PCC		SCC		Total RB Size	Target MPR Level (dB)	DSI	Measured Power (dbm)	Tune up Power (dbm)
			RB Size	RB offset	RB Size	RB offset					
132047	132140	QPSK	1	0	0	0	1	0	FULL	24.30	25.00
132322	132229	QPSK	1	0	0	0	1	0	FULL	24.45	25.00
132597	132504	QPSK	1	0	0	0	1	0	FULL	24.42	25.00
132047	132140	QPSK	1	0	0	0	1	0	ECI 3	20.80	21.50
132322	132229	QPSK	1	0	0	0	1	0	ECI 3	20.96	21.50
132597	132504	QPSK	1	0	0	0	1	0	ECI 3	20.91	21.50
132047	132140	QPSK	1	0	0	0	1	0	ECI 5	24.30	25.00
132322	132229	QPSK	1	0	0	0	1	0	ECI 5	24.45	25.00
132597	132504	QPSK	1	0	0	0	1	0	ECI 5	24.42	25.00
132047	132140	QPSK	1	0	0	0	1	0	ECI 8	18.88	19.50
132322	132229	QPSK	1	0	0	0	1	0	ECI 8	19.00	19.50
132597	132504	QPSK	1	0	0	0	1	0	ECI 8	18.96	19.50
132047	132140	QPSK	1	0	0	0	1	0	ECI 10	24.30	25.00
132322	132229	QPSK	1	0	0	0	1	0	ECI 10	24.45	25.00
132597	132504	QPSK	1	0	0	0	1	0	ECI 10	24.42	25.00

CA 66B Ant3											
Combination 15MHz+5MHz (75RB+25RB)											
PCC Channel	SCC Channel	Modulation	PCC		SCC		Total RB Size	Target MPR Level (dB)	DSI	Measured Power (dbm)	Tune up Power (dbm)
			RB Size	RB offset	RB Size	RB offset					
132047	132140	QPSK	1	0	0	0	1	0	FULL	23.94	25.00
132322	132229	QPSK	1	0	0	0	1	0	FULL	24.04	25.00
132597	132504	QPSK	1	0	0	0	1	0	FULL	23.98	25.00
132047	132140	QPSK	1	0	0	0	1	0	ECI 3	21.73	22.50
132322	132229	QPSK	1	0	0	0	1	0	ECI 3	21.84	22.50
132597	132504	QPSK	1	0	0	0	1	0	ECI 3	21.79	22.50
132047	132140	QPSK	1	0	0	0	1	0	ECI 5	17.19	18.00
132322	132229	QPSK	1	0	0	0	1	0	ECI 5	17.29	18.00
132597	132504	QPSK	1	0	0	0	1	0	ECI 5	17.24	18.00
132047	132140	QPSK	1	0	0	0	1	0	ECI 8	20.18	21.00
132322	132229	QPSK	1	0	0	0	1	0	ECI 8	20.26	21.00
132597	132504	QPSK	1	0	0	0	1	0	ECI 8	20.23	21.00
132047	132140	QPSK	1	0	0	0	1	0	ECI 10	16.20	17.00
132322	132229	QPSK	1	0	0	0	1	0	ECI 10	16.31	17.00
132597	132504	QPSK	1	0	0	0	1	0	ECI 10	16.21	17.00

CA_66B Ant5											
Combination 15MHz+5MHz (75RB+25RB)											
PCC Channel	SCC Channel	Modulation	PCC		SCC		Total RB Size	Target MPR Level (dB)	DSI	Measured Power (dbm)	Tune up Power (dbm)
			RB Size	RB offset	RB Size	RB offset					
132047	132140	QPSK	1	0	0	0	1	0	FULL	22.46	23.80
132322	132229	QPSK	1	0	0	0	1	0	FULL	22.52	23.80
132597	132504	QPSK	1	0	0	0	1	0	FULL	22.27	23.80
132047	132140	QPSK	1	0	0	0	1	0	ECI 3	20.95	22.30
132322	132229	QPSK	1	0	0	0	1	0	ECI 3	21.03	22.30
132597	132504	QPSK	1	0	0	0	1	0	ECI 3	20.77	22.30
132047	132140	QPSK	1	0	0	0	1	0	ECI 5	20.44	21.80
132322	132229	QPSK	1	0	0	0	1	0	ECI 5	20.49	21.80
132597	132504	QPSK	1	0	0	0	1	0	ECI 5	20.24	21.80
132047	132140	QPSK	1	0	0	0	1	0	ECI 8	18.38	19.80
132322	132229	QPSK	1	0	0	0	1	0	ECI 8	18.46	19.80
132597	132504	QPSK	1	0	0	0	1	0	ECI 8	18.17	19.80
132047	132140	QPSK	1	0	0	0	1	0	ECI 10	19.46	20.80
132322	132229	QPSK	1	0	0	0	1	0	ECI 10	19.53	20.80
132597	132504	QPSK	1	0	0	0	1	0	ECI 10	19.30	20.80

CA_66C Ant4											
Combination 20MHz+20MHz (100RB+100RB)											
PCC Channel	SCC Channel	Modulation	PCC		SCC		Total RB Size	Target MPR Level (dB)	DSI	Measured Power (dbm)	Tune up Power (dbm)
			RB Size	RB offset	RB Size	RB offset					
132072	132270	QPSK	1	0	0	0	1	0	FULL	24.34	25.00
132322	132124	QPSK	1	0	0	0	1	0	FULL	24.48	25.00
132572	132374	QPSK	1	0	0	0	1	0	FULL	24.44	25.00
132072	132270	QPSK	1	0	0	0	1	0	ECI 3	20.98	21.50
132322	132124	QPSK	1	0	0	0	1	0	ECI 3	21.14	21.50
132572	132374	QPSK	1	0	0	0	1	0	ECI 3	21.07	21.50
132072	132270	QPSK	1	0	0	0	1	0	ECI 5	24.34	25.00
132322	132124	QPSK	1	0	0	0	1	0	ECI 5	24.48	25.00
132572	132374	QPSK	1	0	0	0	1	0	ECI 5	24.44	25.00
132072	132270	QPSK	1	0	0	0	1	0	ECI 8	18.95	19.50
132322	132124	QPSK	1	0	0	0	1	0	ECI 8	19.07	19.50
132572	132374	QPSK	1	0	0	0	1	0	ECI 8	19.08	19.50
132072	132270	QPSK	1	0	0	0	1	0	ECI 10	24.34	25.00
132322	132124	QPSK	1	0	0	0	1	0	ECI 10	24.48	25.00
132572	132374	QPSK	1	0	0	0	1	0	ECI 10	24.44	25.00

CA_66C Ant3											
Combination 20MHz+20MHz (100RB+100RB)											
PCC Channel	SCC Channel	Modulation	PCC		SCC		Total RB Size	Target MPR Level (dB)	DSI	Measured Power (dbm)	Tune up Power (dbm)
			RB Size	RB offset	RB Size	RB offset					
132072	132270	QPSK	1	0	0	0	1	0	FULL	23.95	25.00
132322	132124	QPSK	1	0	0	0	1	0	FULL	24.07	25.00
132572	132374	QPSK	1	0	0	0	1	0	FULL	24.02	25.00
132072	132270	QPSK	1	0	0	0	1	0	ECI 3	21.75	22.50
132322	132124	QPSK	1	0	0	0	1	0	ECI 3	21.85	22.50
132572	132374	QPSK	1	0	0	0	1	0	ECI 3	21.85	22.50
132072	132270	QPSK	1	0	0	0	1	0	ECI 5	17.20	18.00
132322	132124	QPSK	1	0	0	0	1	0	ECI 5	17.35	18.00
132572	132374	QPSK	1	0	0	0	1	0	ECI 5	17.29	18.00
132072	132270	QPSK	1	0	0	0	1	0	ECI 8	20.21	21.00
132322	132124	QPSK	1	0	0	0	1	0	ECI 8	20.35	21.00
132572	132374	QPSK	1	0	0	0	1	0	ECI 8	20.29	21.00
132072	132270	QPSK	1	0	0	0	1	0	ECI 10	16.21	17.00
132322	132124	QPSK	1	0	0	0	1	0	ECI 10	16.37	17.00
132572	132374	QPSK	1	0	0	0	1	0	ECI 10	16.29	17.00

CA 66C Ant5											
Combination 20MHz+20MHz (100RB+100RB)											
PCC Channel	SCC Channel	Modulation	PCC		SCC		Total RB Size	Target MPR Level (dB)	DSI	Measured Power (dbm)	Tune up Power (dbm)
			RB Size	RB offset	RB Size	RB offset					
132072	132270	QPSK	1	0	0	0	1	0	FULL	22.47	23.80
132322	132124	QPSK	1	0	0	0	1	0	FULL	22.53	23.80
132572	132374	QPSK	1	0	0	0	1	0	FULL	22.33	23.80
132072	132270	QPSK	1	0	0	0	1	0	ECI 3	20.97	22.30
132322	132124	QPSK	1	0	0	0	1	0	ECI 3	21.05	22.30
132572	132374	QPSK	1	0	0	0	1	0	ECI 3	20.86	22.30
132072	132270	QPSK	1	0	0	0	1	0	ECI 5	20.48	21.80
132322	132124	QPSK	1	0	0	0	1	0	ECI 5	20.53	21.80
132572	132374	QPSK	1	0	0	0	1	0	ECI 5	20.33	21.80
132072	132270	QPSK	1	0	0	0	1	0	ECI 8	18.46	19.80
132322	132124	QPSK	1	0	0	0	1	0	ECI 8	18.49	19.80
132572	132374	QPSK	1	0	0	0	1	0	ECI 8	18.33	19.80
132072	132270	QPSK	1	0	0	0	1	0	ECI 10	19.48	20.80
132322	132124	QPSK	1	0	0	0	1	0	ECI 10	19.55	20.80
132572	132374	QPSK	1	0	0	0	1	0	ECI 10	19.37	20.80

CA_41C Ant4											
Combination 20MHz+20MHz (100RB+100RB)											
PCC Channel	SCC Channel	Modulation	PCC		SCC		Total RB Size	Target MPR Level (dB)	DSI	Measured Power (dbm)	Tune up Power (dbm)
			RB Size	RB offset	RB Size	RB offset					
39750	39948	QPSK	1	0	0	0	1	0	FULL	23.11	23.80
40185	39987	QPSK	1	0	0	0	1	0	FULL	23.03	23.80
40620	40422	QPSK	1	0	0	0	1	0	FULL	23.45	23.80
41055	40857	QPSK	1	0	0	0	1	0	FULL	23.23	23.80
41490	41292	QPSK	1	0	0	0	1	0	FULL	23.44	23.80
39750	39948	QPSK	1	0	0	0	1	0	ECI 3	21.83	22.80
40185	39987	QPSK	1	0	0	0	1	0	ECI 3	21.73	22.80
40620	40422	QPSK	1	0	0	0	1	0	ECI 3	22.17	22.80
41055	40857	QPSK	1	0	0	0	1	0	ECI 3	21.98	22.80
41490	41292	QPSK	1	0	0	0	1	0	ECI 3	22.14	22.80
39750	39948	QPSK	1	0	0	0	1	0	ECI 5	23.11	23.80
40185	39987	QPSK	1	0	0	0	1	0	ECI 5	23.03	23.80
40620	40422	QPSK	1	0	0	0	1	0	ECI 5	23.45	23.80
41055	40857	QPSK	1	0	0	0	1	0	ECI 5	23.23	23.80
41490	41292	QPSK	1	0	0	0	1	0	ECI 5	23.44	23.80
39750	39948	QPSK	1	0	0	0	1	0	ECI 8	20.87	21.80
40185	39987	QPSK	1	0	0	0	1	0	ECI 8	20.81	21.80
40620	40422	QPSK	1	0	0	0	1	0	ECI 8	21.22	21.80
41055	40857	QPSK	1	0	0	0	1	0	ECI 8	21.01	21.80
41490	41292	QPSK	1	0	0	0	1	0	ECI 8	21.22	21.80
39750	39948	QPSK	1	0	0	0	1	0	ECI 10	23.11	23.80
40185	39987	QPSK	1	0	0	0	1	0	ECI 10	23.03	23.80
40620	40422	QPSK	1	0	0	0	1	0	ECI 10	23.45	23.80
41055	40857	QPSK	1	0	0	0	1	0	ECI 10	23.23	23.80
41490	41292	QPSK	1	0	0	0	1	0	ECI 10	23.44	23.80

CA_41C Ant3											
Combination 20MHz+20MHz (100RB+100RB)											
PCC Channel	SCC Channel	Modulation	PCC		SCC		Total RB Size	Target MPR Level (dB)	DSI	Measured Power (dbm)	Tune up Power (dbm)
			RB Size	RB offset	RB Size	RB offset					
39750	39948	QPSK	1	0	0	0	1	0	FULL	22.65	23.80
40185	39987	QPSK	1	0	0	0	1	0	FULL	22.67	23.80
40620	40422	QPSK	1	0	0	0	1	0	FULL	22.73	23.80
41055	40857	QPSK	1	0	0	0	1	0	FULL	22.67	23.80
41490	41292	QPSK	1	0	0	0	1	0	FULL	22.33	23.80
39750	39948	QPSK	1	0	0	0	1	0	ECI3	22.65	23.80
40185	39987	QPSK	1	0	0	0	1	0	ECI3	22.67	23.80
40620	40422	QPSK	1	0	0	0	1	0	ECI3	22.73	23.80
41055	40857	QPSK	1	0	0	0	1	0	ECI3	22.67	23.80
41490	41292	QPSK	1	0	0	0	1	0	ECI3	22.33	23.80
39750	39948	QPSK	1	0	0	0	1	0	ECI5	19.37	20.80
40185	39987	QPSK	1	0	0	0	1	0	ECI5	19.39	20.80
40620	40422	QPSK	1	0	0	0	1	0	ECI5	19.46	20.80
41055	40857	QPSK	1	0	0	0	1	0	ECI5	19.37	20.80
41490	41292	QPSK	1	0	0	0	1	0	ECI5	19.03	20.80
39750	39948	QPSK	1	0	0	0	1	0	ECI8	22.65	23.80
40185	39987	QPSK	1	0	0	0	1	0	ECI8	22.67	23.80
40620	40422	QPSK	1	0	0	0	1	0	ECI8	22.73	23.80
41055	40857	QPSK	1	0	0	0	1	0	ECI8	22.67	23.80
41490	41292	QPSK	1	0	0	0	1	0	ECI8	22.33	23.80
39750	39948	QPSK	1	0	0	0	1	0	ECI10	18.39	19.80
40185	39987	QPSK	1	0	0	0	1	0	ECI10	18.43	19.80
40620	40422	QPSK	1	0	0	0	1	0	ECI10	18.46	19.80
41055	40857	QPSK	1	0	0	0	1	0	ECI10	18.42	19.80
41490	41292	QPSK	1	0	0	0	1	0	ECI10	18.07	19.80

CA_41C Ant5											
Combination 20MHz+20MHz (100RB+100RB)											
PCC Channel	SCC Channel	Modulation	PCC		SCC		Total RB Size	Target MPR Level (dB)	DSI	Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset					
39750	39948	QPSK	1	0	0	0	1	0	FULL	21.29	22.80
40185	39987	QPSK	1	0	0	0	1	0	FULL	21.22	22.80
40620	40422	QPSK	1	0	0	0	1	0	FULL	21.66	22.80
41055	40857	QPSK	1	0	0	0	1	0	FULL	21.40	22.80
41490	41292	QPSK	1	0	0	0	1	0	FULL	21.61	22.80
39750	39948	QPSK	1	0	0	0	1	0	ECI 3	21.29	22.80
40185	39987	QPSK	1	0	0	0	1	0	ECI 3	21.22	22.80
40620	40422	QPSK	1	0	0	0	1	0	ECI 3	21.66	22.80
41055	40857	QPSK	1	0	0	0	1	0	ECI 3	21.40	22.80
41490	41292	QPSK	1	0	0	0	1	0	ECI 3	21.61	22.80
39750	39948	QPSK	1	0	0	0	1	0	ECI 5	21.29	22.80
40185	39987	QPSK	1	0	0	0	1	0	ECI 5	21.22	22.80
40620	40422	QPSK	1	0	0	0	1	0	ECI 5	21.66	22.80
41055	40857	QPSK	1	0	0	0	1	0	ECI 5	21.40	22.80
41490	41292	QPSK	1	0	0	0	1	0	ECI 5	21.61	22.80
39750	39948	QPSK	1	0	0	0	1	0	ECI 8	21.29	22.80
40185	39987	QPSK	1	0	0	0	1	0	ECI 8	21.22	22.80
40620	40422	QPSK	1	0	0	0	1	0	ECI 8	21.66	22.80
41055	40857	QPSK	1	0	0	0	1	0	ECI 8	21.40	22.80
41490	41292	QPSK	1	0	0	0	1	0	ECI 8	21.61	22.80
39750	39948	QPSK	1	0	0	0	1	0	ECI 10	21.29	22.80
40185	39987	QPSK	1	0	0	0	1	0	ECI 10	21.22	22.80
40620	40422	QPSK	1	0	0	0	1	0	ECI 10	21.66	22.80
41055	40857	QPSK	1	0	0	0	1	0	ECI 10	21.40	22.80
41490	41292	QPSK	1	0	0	0	1	0	ECI 10	21.61	22.80

Downlink CA Power

Full Power															
2CC															
Configure		CA Configuration (BCS)	PCC						SCC				Power		
			LTE Band	BW (MHz)	UL Freq. (MHz)	UL Channel	Mod.	UL# RB	UL RB Offset	LTE Band	BW (MHz)	DL Freq. (MHz)	DL Channel	With CA Tx.Power (dBm)	W/O CA Tx.Power (dB)
Inter-Band		2A-4A	Band 2	20	1880	18900	QPSK	1	0	Band 4	20	2132.5	2175	22.90	23.38
		2A-5A	Band 2	20	1880	18900	QPSK	1	0	Band 5	10	881.5	2525	22.84	23.38
		2A-7A	Band 2	20	1880	18900	QPSK	1	0	Band 7	20	2655	3100	22.83	23.38
		2A-12A	Band 2	20	1880	18900	QPSK	1	0	Band 12	10	737.5	5095	22.89	23.38
		2A-26A	Band 2	20	1880	18900	QPSK	1	0	Band 26	5	876.5	8865	22.84	23.38
		2A-38A	Band 2	20	1880	18900	QPSK	1	0	Band 38	20	2599.8	38048	22.90	23.38
		2A-66A	Band 2	20	1880	18900	QPSK	1	0	Band 66	20	2155.00	66886	22.91	23.38
		4A-5A	Band 4	20	1732.5	20175	QPSK	1	0	Band 5	10	881.5	2525	24.45	24.55
		4A-7A	Band 4	20	1732.5	20175	QPSK	1	0	Band 7	20	2655	3100	24.53	24.55
		4A-12A	Band 4	20	1732.5	20175	QPSK	1	0	Band 12	10	737.5	5095	24.47	24.55
		4A-17A	Band 4	10	1732.5	20175	QPSK	1	0	Band 17	10	740	5790	24.40	24.55
		5A-7A	Band 5	10	829	20450	QPSK	1	0	Band 7	20	2655	3100	24.57	24.35
		5A-41A	Band 5	10	829	20450	QPSK	1	0	Band 41	20	2593	40620	24.53	24.35
		5A-66A	Band 5	10	829	20450	QPSK	1	0	Band 66	20	2155	66886	24.55	24.35
		7A-12A	Band 7	20	2535	21100	QPSK	1	0	Band 12	10	737.5	5095	24.89	24.73
		7A-26A	Band 7	20	2535	21100	QPSK	1	0	Band 26	5	876.5	8865	24.84	24.73
		7A-66A	Band 7	20	2535	21100	QPSK	1	0	Band 66	20	2155.00	66886	24.82	24.73
		12A-66A	Band 12	10	707.5	23095	QPSK	1	0	Band 66	20	2145	66786	24.16	24.28
Intra-Band	Non-Contiguous	2A-2A	Band 2	20	1880	18900	QPSK	1	0	Band 2	5	1932.5	625	22.94	23.38
		4A-4A	Band 4	20	1732.5	20175	QPSK	1	0	Band 4	5	2152.5	2375	24.51	24.55
		5A-5A	Band 5	10	829	20450	QPSK	1	0	Band 5	10	889	2600	24.53	24.35
		7A-7A	Band 7	20	2535	21100	QPSK	1	0	Band 7	20	2680	3350	24.92	24.73
		41A-41A	Band 41	20	2593	40620	QPSK	1	0	Band 41	20	2506	39750	23.37	23.50
		66A-66A	Band 66	20	1770	132572	QPSK	1	0	Band 66	5	2112.5	66461	24.37	24.50
	Contiguous	5B	Band 5	10	829	20450	QPSK	1	0	Band 5	10	883.9	2549	24.20	24.35
		66B	Band 66	15	1745	132322	QPSK	1	0	Band 66	5	2164.30	66979	24.61	24.50
		2C	Band 2	20	1880	18900	QPSK	1	0	Band 2	20	1979.80	1098	22.91	23.38
		7C	Band 7	20	2535	21100	QPSK	1	0	Band 7	20	2674.80	3298	24.84	24.73
		38C	Band 38	20	2580	37850	QPSK	1	0	Band 38	20	2599.80	38048	25.01	24.85
		41C	Band 41	20	2549.5	40185	QPSK	1	0	Band 41	20	2569.3	40383	23.33	23.50
	66C	Band 66	20	1720	132072	QPSK	1	0	Band 66	20	2139.80	66734	24.41	24.50	