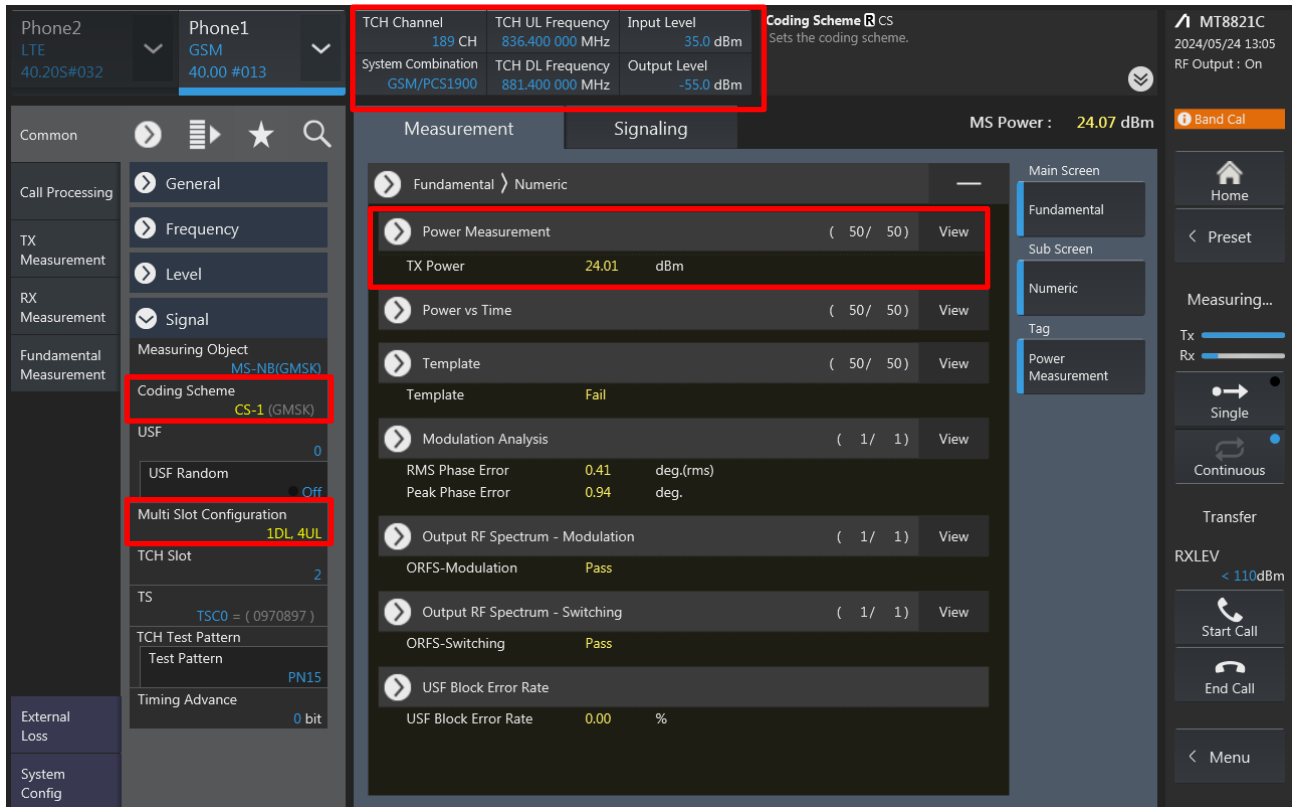


Power measurement connection diagram:

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 configuration and measurement settings for a GSM call. The interface is divided into several sections:

- Top Bar:** Shows 'Phone1 GSM' and 'Phone2 LTE'. A table lists key parameters:

TCH Channel	189 CH	TCH UL Frequency	836.400 000 MHz	Input Level	35.0 dBm
System Combination	GSM/PCS1900	TCH DL Frequency	881.400 000 MHz	Output Level	-55.0 dBm
- Left Panel:** A menu with 'Fundamental Measurement' selected. 'Coding Scheme' is set to 'CS-1 (GMSK)' and 'Multi Slot Configuration' is set to '1DL, 4UL'. Other settings include 'Measuring Object: MS-NB(GMSK)', 'USF: 0', 'USF Random: Off', 'TCH Slot: 2', 'TS: TSCO = (0970897)', 'TCH Test Pattern: PN15', and 'Timing Advance: 0 bit'.
- Main Area:** Shows 'Measurement' results for 'Fundamental' and 'Signaling'. The 'Power Measurement' section is highlighted, showing 'TX Power' as 24.01 dBm. Other metrics include 'RMS Phase Error: 0.41 deg.(rms)', 'Peak Phase Error: 0.94 deg.', and 'USF Block Error Rate: 0.00 %'. The 'Modulation Analysis' section shows a 'Fail' status.
- Right Panel:** Includes a 'Main Screen' menu, a 'Band Cal' button, and a 'TX Power' slider set to 24.07 dBm. The 'RXLEV' is shown as < 110dBm.

<WCDMA>

The screenshot displays the WCDMA measurement interface. At the top, it shows 'Phone1 W-CDMA 40.00 #013'. A red box highlights the channel and frequency settings: UL Channel 9400 CH, UL Frequency 1.880.000 000 MHz, Input Level 35.0 dBm, DL Channel 9800 CH, DL Frequency 1.960.000 000 MHz, and Output Level -65.7 dBm. The 'Average Count' is set to PWR_AVG. The 'Measurement' section shows 'Fundamental' selected, with 'Power Measurement' (50/50) highlighted in a red box, displaying a TX Power of 23.28 dBm. Other measurements include Frequency Error (-0.0002 kHz), Occupied Bandwidth (4.163 MHz), Spectrum Emission Mask (Pass), Adjacent Channel Power (ACLR(-5MHz) -40.24 dB, ACLR(+5MHz) -42.79 dB), Modulation Analysis (EVM 5.15 %), and Peak Code Domain Error (PCDE -39.86 dB). The 'External Loss' is set to 'All 1'. The UE Power is 22.6 dBm.

<LTE>

The screenshot displays the LTE measurement interface. At the top, it shows 'Phone1 LTE 40.20S#021'. A red box highlights the channel and power settings: UL Channel 21100 ch, TPC Pattern All +3dB, Input Level 30.0 dBm, Operation Band 7, Channel Bandwidth 20 MHz, and Output Level -67.0 dBm. The 'External Loss - Main DL' is set to DLEXTLOSS. The 'Measurement' section shows 'Numeric' selected, with 'TX Power' (23.01 dBm) highlighted in a red box. Other measurements include Occupied Bandwidth, Spectrum Emission Mask, Adjacent Channel Power, In-Band Emission, Spectrum Flatness, EVM, Phase Error, Magnitude Error, Constellation, and Throughput. 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'. The UE Power is 23.4 dBm.

<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 | 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

Numeric TX Power 23.19 dBm

Occupied Bandwidth [On] | Spectrum Emission Mask [On]

Adjacent Channel Power [On] | In-Band Emission [On] | Spectrum Flatness [On] | EVM [On]

Phase Error [On] | Magnitude Error [On] | Constellation [On] | Throughput [On]

Test Parameter

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

<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 | 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

Numeric TX Power 26.16 dBm

Occupied Bandwidth [On] | Spectrum Emission Mask [On]

Adjacent Channel Power [On] | In-Band Emission [On] | Spectrum Flatness [On] | EVM [On]

Phase Error [On] | Magnitude Error [On] | Constellation [On] | Throughput [On]

Test Parameter

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

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.

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

Power Measurement (50 / 50)
TX Power 25.12 dBm

Modulation Analysis (1 / 1) View
 Freq. Err 0.00 ppm
 EVM 1.35 %(rms)

Test Parameter
 Number of RB 1
 Starting RB 0
 Max UL Throughput 72 kbps
 MCS Index 5 QPSK 5 72 8

<5G NR FR1>

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

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

Numeric
 Tx Power 25.88 dBm
 OBW 18.787 MHz
 ACLR(-) -53.74 dB
 ACLR(+) -55.90 dB

Occupied Bandwidth
 OBW 18.787 MHz

Waveform DFT-S-OFDM
Modulation Pi/2 BPSK



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

Power Measurement - Count PWR_AVG

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 N_TAoffset
- Physical Channel DL Subcarrier Spacing(data) 15kHz
- Call Processing UL Subcarrier Spacing(data) 15kHz
- Tx Measurement BW Setting Mode Symmetric
- Rx Measurement DL Channel Bandwidth 20MHz
- OTA Position UL Channel Bandwidth 20MHz
- Fundamental Measurement DL Number of Additional BWP 0
- UL Number of Additional BWP 0
- BWP1 25 0 25 0
- BWP2 25 0 25 0
- BWP3 25 0 25 0
- BWP4 25 0 25 0
- Test Parameter BWP Switch Delay Type Type2
- External Loss BWP Configuration Option Option2
- System Config Active DL BWP 0
- Active UL BWP

Measurement

Numeric

Tx Power	25.83 dBm
OBW	18.787 MHz
ACLR(-)	-53.70 dB
ACLR(+)	-55.93 dB

Occupied Bandwidth

OBW 18.787 MHz

Adjacent Channel Power

In-Band Emission

Spectrum Flatness

Spectrum Emission Mask

On

EVM

Phase Error

Magnitude Error

Constellation

On

On

On

On

Main Screen

- Fundamental
- Sub Screen
- Top

Home

Preset

Measuring...

Tx

Rx

Single

Continuous

NR

Connected

Start Call

End Call

Menu

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

Power Measurement - Count PWR_AVG

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 : 25.9 dBm

Common

- Level / Freq Cell
- Level / Freq Routing / ARB UL
- Physical Channel Offset To Carrier 504
- Call Processing PointA Channel 116048
- PointA Frequency 580.240 000 MHz
- Tx Measurement Center Channel 136100
- Rx Measurement Center Frequency 680.500 000 MHz
- OTA Position 7.5 kHz Frequency Shift Off
- Fundamental Measurement DL
- Offset To Carrier 102
- PointA Channel 121320
- PointA Frequency 606.600 000 MHz
- Center Channel 126900
- Center Frequency 634.500 000 MHz
- Test Parameter Absolute Frequency SSB 125550
- External Loss SSB Frequency 627.750 000 MHz
- System Config Channel Setting Mode Lowest GSCN
- Operation Band 71

Measurement

Numeric

Tx Power	25.84 dBm
OBW	18.787 MHz
ACLR(-)	-53.57 dB
ACLR(+)	-55.98 dB

Occupied Bandwidth

OBW 18.787 MHz

Adjacent Channel Power

In-Band Emission

Spectrum Flatness

Spectrum Emission Mask

On

EVM

Phase Error

Magnitude Error

Constellation

On

On

On

On

Main Screen

- Fundamental
- Sub Screen
- Top

Home

Preset

Measuring...

Tx

Rx

Single

Continuous

NR

Connected

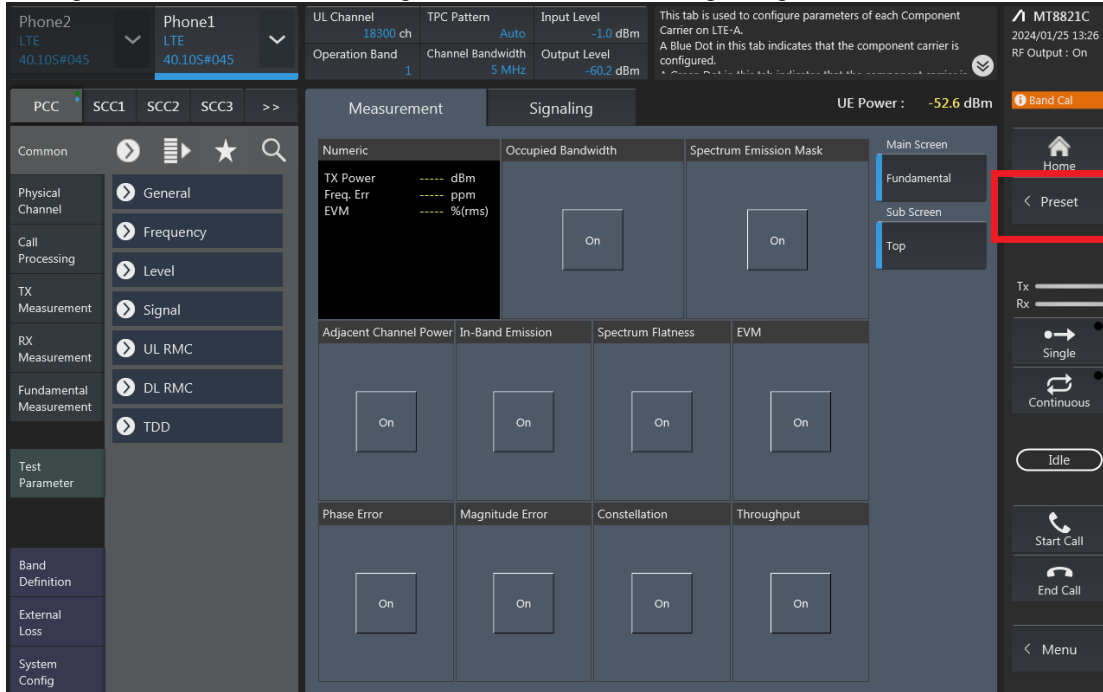
Start Call

End Call

Menu

LTE Uplink and Downlink Carrier Aggregation configurations:

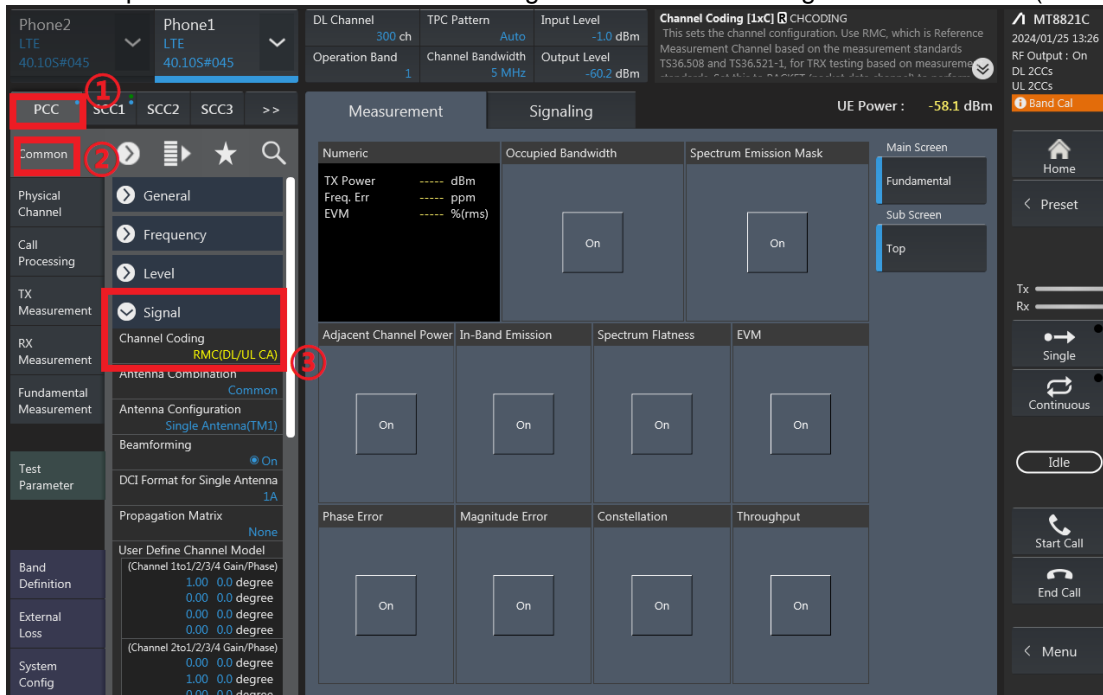
1. Change the Scenario in the Configuration of Phone1 LTE Signaling and Preset.



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;

The screenshot shows the PCC parameter settings interface. The left sidebar has a menu with 'Common' selected. The main area shows 'Measurement' and 'Signaling' tabs. Red boxes and numbers 1-4 highlight specific settings: 1. Common tab, 2. Operation Band (41), 3. Channel Bandwidth (20 MHz), 4. Channel (39750 ch).

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

The screenshot shows the RB configurations interface. The left sidebar has a menu with 'UL RMC' selected. The main area shows 'Measurement' and 'Signaling' tabs. Red boxes and numbers 1-3 highlight specific settings: 1. UL RMC, 2. UL Allocation Mode (Normal), 3. Number of RB (100).

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

The screenshot shows the SCC1 configuration screen. The 'DL Channel' is set to 39948 ch, 'Operation Band' is 41, 'Channel Bandwidth' is 20 MHz, and 'Channel' is 39948 ch. The 'Activation' and 'Output' status are both 'On'. The 'UE Power' is -15.5 dBm. The interface includes sections for 'Measurement' and 'Signaling' with various 'On' buttons for metrics like Adjacent Channel Power, In-Band Emission, Spectrum Flatness, EVM, Phase Error, Magnitude Error, Constellation, and Throughput.

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

This screenshot shows the 'UL RMC' configuration section expanded. The 'Number of RB' is set to 100 and the 'Starting RB' is set to 0. The 'RB Pos.' is marked as 'Min(#0)'. Other parameters like 'Max UL Throughput' (3504 kbps) and 'MCS Index' (5 QPSK 5 8760 8) are also visible. The 'DL RMC' and 'TDD' sections are also present in the left sidebar.

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
PCC Channel Power	21.84	21.84	21.84 dBm
SCC-1 TX Power	13.02	13.02	13.02 dBm
SCC-1 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.

Uplink CA Power

CA_7C_Ant 0											
Combination 20MHz+20MHz (100RB+100RB)											
PCC Channel	SCC Channel	Modulation	PCC		SCC		Total RB Size	Target MPR Level (dB)	Power Reduction	Measured Power (dBm)	Turn up Power (dBm)
			RB Size	RB offset	RB Size	RB offset					
20900	21048	QPSK	1	0	0	0	1	0	Full	22.93	23.30
21100	21048	QPSK	1	0	0	0	1	0	Full	22.92	23.30
21550	21152	QPSK	1	0	0	0	1	0	Full	22.95	23.30
20900	21048	QPSK	1	0	0	0	1	0	DS1.4	21.21	21.80
21100	21048	QPSK	1	0	0	0	1	0	DS1.4	21.20	21.80
21550	21152	QPSK	1	0	0	0	1	0	DS1.4	21.24	21.80
20900	21048	QPSK	1	0	0	0	1	0	DS1.5	20.13	20.80
21100	21048	QPSK	1	0	0	0	1	0	DS1.5	20.12	20.80
21550	21152	QPSK	1	0	0	0	1	0	DS1.5	20.18	20.80

CA_66B_Ant 0											
Combination 15MHz+5MHz (75RB+25RB)											
PCC Channel	SCC Channel	Modulation	PCC		SCC		Total RB Size	Target MPR Level (dB)	Power Reduction	Measured Power (dBm)	Turn up Power (dBm)
			RB Size	RB offset	RB Size	RB offset					
132047	132140	QPSK	1	0	0	0	1	0	Full	23.42	23.80
132022	132415	QPSK	1	0	0	0	1	0	Full	23.44	23.80
132047	132440	QPSK	1	0	0	0	1	0	Full	23.36	23.80
132047	132140	QPSK	1	0	0	0	1	0	DS1.4	21.77	22.80
132022	132415	QPSK	1	0	0	0	1	0	DS1.4	21.86	22.80
132047	132440	QPSK	1	0	0	0	1	0	DS1.4	21.75	22.80
132047	132140	QPSK	1	0	0	0	1	0	DS1.5	21.77	22.80
132022	132415	QPSK	1	0	0	0	1	0	DS1.5	21.86	22.80
132047	132440	QPSK	1	0	0	0	1	0	DS1.5	21.75	22.80

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)	Turn up Power (dBm)
			RB Size	RB offset	RB Size	RB offset					
20900	21048	QPSK	1	0	0	0	1	0	Full	23.42	23.80
21100	21048	QPSK	1	0	0	0	1	0	Full	22.45	23.80
21550	21152	QPSK	1	0	0	0	1	0	Full	23.47	23.80
20900	21048	QPSK	1	0	0	0	1	0	DS1.4	22.15	22.80
21100	21048	QPSK	1	0	0	0	1	0	DS1.4	22.18	22.80
21550	21152	QPSK	1	0	0	0	1	0	DS1.4	22.20	22.80
20900	21048	QPSK	1	0	0	0	1	0	DS1.5	22.82	23.30
21100	21048	QPSK	1	0	0	0	1	0	DS1.5	22.86	23.30
21550	21152	QPSK	1	0	0	0	1	0	DS1.5	22.70	23.30

CA_66B_Ant 5											
Combination 15MHz+5MHz (75RB+25RB)											
PCC Channel	SCC Channel	Modulation	PCC		SCC		Total RB Size	Target MPR Level (dB)	Power Reduction	Measured Power (dBm)	Turn up Power (dBm)
			RB Size	RB offset	RB Size	RB offset					
132047	132140	QPSK	1	0	0	0	1	0	Full	23.68	24.00
132022	132415	QPSK	1	0	0	0	1	0	Full	23.71	24.00
132047	132440	QPSK	1	0	0	0	1	0	Full	23.66	24.00
132047	132140	QPSK	1	0	0	0	1	0	DS1.4	22.82	23.50
132022	132415	QPSK	1	0	0	0	1	0	DS1.4	22.86	23.50
132047	132440	QPSK	1	0	0	0	1	0	DS1.4	22.84	23.50
132047	132140	QPSK	1	0	0	0	1	0	DS1.5	22.82	23.50
132022	132415	QPSK	1	0	0	0	1	0	DS1.5	22.86	23.50
132047	132440	QPSK	1	0	0	0	1	0	DS1.5	22.84	23.50

CA_86C_Ant 0											
Combination 20MHz+20MHz (100RB+100RB)											
PCC Channel	SCC Channel	Modulation	PCC		SCC		Total RB Size	Target MPR Level (dB)	Power Reduction	Measured Power (dBm)	Turn up Power (dBm)
			RB Size	RB offset	RB Size	RB offset					
15072	15070	QPSK	1	0	0	0	1	0	FuB	23.05	23.80
15072	15050	QPSK	1	0	0	0	1	0	FuB	23.12	23.80
15072	15074	QPSK	1	0	0	0	1	0	FuB	23.10	23.80
15072	15070	QPSK	1	0	0	0	1	0	DSI 4	21.40	22.80
15072	15050	QPSK	1	0	0	0	1	0	DSI 4	21.48	22.80
15072	15074	QPSK	1	0	0	0	1	0	DSI 4	21.45	22.80
15072	15070	QPSK	1	0	0	0	1	0	DSI 5	21.40	22.80
15072	15050	QPSK	1	0	0	0	1	0	DSI 5	21.48	22.80
15072	15074	QPSK	1	0	0	0	1	0	DSI 5	21.45	22.80

CA_86C_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)	Turn up Power (dBm)
			RB Size	RB offset	RB Size	RB offset					
15072	15070	QPSK	1	0	0	0	1	0	FuB	23.20	24.00
15072	15050	QPSK	1	0	0	0	1	0	FuB	23.28	24.00
15072	15074	QPSK	1	0	0	0	1	0	FuB	23.22	24.00
15072	15070	QPSK	1	0	0	0	1	0	DSI 4	22.28	23.50
15072	15050	QPSK	1	0	0	0	1	0	DSI 4	22.37	23.50
15072	15074	QPSK	1	0	0	0	1	0	DSI 4	22.35	23.50
15072	15070	QPSK	1	0	0	0	1	0	DSI 5	22.25	23.50
15072	15050	QPSK	1	0	0	0	1	0	DSI 5	22.37	23.50
15072	15074	QPSK	1	0	0	0	1	0	DSI 5	22.35	23.50

CA_88C_Ant 0											
Combination 20MHz+20MHz (100RB+100RB)											
PCC Channel	SCC Channel	Modulation	PCC		SCC		Total RB Size	Target MPR Level (dB)	Power Reduction	Measured Power (dBm)	Turn up Power (dBm)
			RB Size	RB offset	RB Size	RB offset					
37850	38048	QPSK	1	0	0	0	1	0	FuB	23.28	23.80
37910	38098	QPSK	1	0	0	0	1	0	FuB	23.33	23.80
38150	37902	QPSK	1	0	0	0	1	0	FuB	23.25	23.80
37850	38048	QPSK	1	0	0	0	1	0	DSI 4	21.47	22.30
37910	38098	QPSK	1	0	0	0	1	0	DSI 4	21.56	22.30
38150	37902	QPSK	1	0	0	0	1	0	DSI 4	21.49	22.30
37850	38048	QPSK	1	0	0	0	1	0	DSI 5	19.41	20.30
37910	38098	QPSK	1	0	0	0	1	0	DSI 5	19.56	20.30
38150	37902	QPSK	1	0	0	0	1	0	DSI 5	19.44	20.30

CA_88C_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)	Turn up Power (dBm)
			RB Size	RB offset	RB Size	RB offset					
37850	38048	QPSK	1	0	0	0	1	0	FuB	23.81	24.00
37910	38098	QPSK	1	0	0	0	1	0	FuB	23.90	24.00
38150	37902	QPSK	1	0	0	0	1	0	FuB	23.86	24.00
37850	38048	QPSK	1	0	0	0	1	0	DSI 4	23.06	23.50
37910	38098	QPSK	1	0	0	0	1	0	DSI 4	23.11	23.50
38150	37902	QPSK	1	0	0	0	1	0	DSI 4	23.02	23.50
37850	38048	QPSK	1	0	0	0	1	0	DSI 5	23.06	23.50
37910	38098	QPSK	1	0	0	0	1	0	DSI 5	23.11	23.50
38150	37902	QPSK	1	0	0	0	1	0	DSI 5	23.02	23.50

CA_41C_Ant 0											
Combination 20MHz+20MHz (100RB+100RB)											
PCC Channel	SCC Channel	Modulation	PCC		SCC		Total RB Size	Target MPR Level (dB)	Power Reduction	Measured Power (dBm)	Turn up Power (dBm)
			RB Size	RB offset	RB Size	RB offset					
39790	39948	QPSK	1	0	0	0	1	0	Full	23.29	23.80
40180	40383	QPSK	1	0	0	0	1	0	Full	23.45	23.80
40620	40818	QPSK	1	0	0	0	1	0	Full	23.51	23.80
41055	41263	QPSK	1	0	0	0	1	0	Full	23.47	23.80
41490	41702	QPSK	1	0	0	0	1	0	Full	23.45	23.80
39790	39948	QPSK	1	0	0	0	1	0	DSB 4	21.68	23.30
40180	40383	QPSK	1	0	0	0	1	0	DSB 4	21.54	23.30
40620	40818	QPSK	1	0	0	0	1	0	DSB 4	21.71	23.30
41055	41263	QPSK	1	0	0	0	1	0	DSB 4	21.66	23.30
41490	41702	QPSK	1	0	0	0	1	0	DSB 4	21.68	23.30
39790	39948	QPSK	1	0	0	0	1	0	DSB 5	22.77	23.30
40180	40383	QPSK	1	0	0	0	1	0	DSB 5	22.75	23.30
41055	41263	QPSK	1	0	0	0	1	0	DSB 5	22.75	23.30
41490	41702	QPSK	1	0	0	0	1	0	DSB 5	22.68	23.30

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)	Turn up Power (dBm)
			RB Size	RB offset	RB Size	RB offset					
39790	39948	QPSK	1	0	0	0	1	0	Full	23.95	24.30
40180	40383	QPSK	1	0	0	0	1	0	Full	23.89	24.30
40620	40818	QPSK	1	0	0	0	1	0	Full	24.02	24.30
41055	41263	QPSK	1	0	0	0	1	0	Full	23.96	24.30
41490	41702	QPSK	1	0	0	0	1	0	Full	23.97	24.30
39790	39948	QPSK	1	0	0	0	1	0	DSB 4	23.31	23.80
40180	40383	QPSK	1	0	0	0	1	0	DSB 4	23.37	23.80
40620	40818	QPSK	1	0	0	0	1	0	DSB 4	23.43	23.80
41055	41263	QPSK	1	0	0	0	1	0	DSB 4	23.32	23.80
41490	41702	QPSK	1	0	0	0	1	0	DSB 4	23.37	23.80
39790	39948	QPSK	1	0	0	0	1	0	DSB 5	23.99	24.30
40180	40383	QPSK	1	0	0	0	1	0	DSB 5	23.89	24.30
40620	40818	QPSK	1	0	0	0	1	0	DSB 5	24.02	24.30
41055	41263	QPSK	1	0	0	0	1	0	DSB 5	23.96	24.30
41490	41702	QPSK	1	0	0	0	1	0	DSB 5	23.97	24.30

CA_48C For FCC_Ant 0											
Combination 20MHz+20MHz (100RB+100RB)											
PCC Channel	SCC Channel	Modulation	PCC		SCC		Total RB Size	Target MPR Level (dB)	Power Reduction	Measured Power (dBm)	Turn up Power (dBm)
			RB Size	RB offset	RB Size	RB offset					
55340	55538	QPSK	1	0	0	0	1	0	Full	23.19	23.80
55830	56028	QPSK	1	0	0	0	1	0	Full	23.12	23.80
56150	56348	QPSK	1	0	0	0	1	0	Full	23.15	23.80
56640	56842	QPSK	1	0	0	0	1	0	Full	23.18	23.80
56940	56938	QPSK	1	0	0	0	1	0	DSB 4	23.19	23.80
56830	56928	QPSK	1	0	0	0	1	0	DSB 4	23.12	23.80
56150	56348	QPSK	1	0	0	0	1	0	DSB 4	23.15	23.80
56640	56842	QPSK	1	0	0	0	1	0	DSB 4	23.18	23.80
56940	56938	QPSK	1	0	0	0	1	0	DSB 5	21.71	22.30
55340	55538	QPSK	1	0	0	0	1	0	DSB 5	21.68	22.30
55830	56028	QPSK	1	0	0	0	1	0	DSB 5	21.66	22.30
56150	56348	QPSK	1	0	0	0	1	0	DSB 5	21.68	22.30
56640	56842	QPSK	1	0	0	0	1	0	DSB 5	21.62	22.30

CA_48C For FCC_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)	Turn up Power (dBm)
			RB Size	RB offset	RB Size	RB offset					
55340	55538	QPSK	1	0	0	0	1	0	Full	22.91	23.30
55830	56028	QPSK	1	0	0	0	1	0	Full	22.96	23.30
56150	56348	QPSK	1	0	0	0	1	0	Full	22.90	23.30
56640	56842	QPSK	1	0	0	0	1	0	Full	22.81	23.30
55340	55538	QPSK	1	0	0	0	1	0	DSB 4	22.91	23.30
55830	56028	QPSK	1	0	0	0	1	0	DSB 4	22.96	23.30
56150	56348	QPSK	1	0	0	0	1	0	DSB 4	22.90	23.30
56640	56842	QPSK	1	0	0	0	1	0	DSB 4	22.81	23.30
55340	55538	QPSK	1	0	0	0	1	0	DSB 5	17.83	18.30
55830	56028	QPSK	1	0	0	0	1	0	DSB 5	17.76	18.30
56150	56348	QPSK	1	0	0	0	1	0	DSB 5	17.76	18.30
56640	56842	QPSK	1	0	0	0	1	0	DSB 5	17.79	18.30



Downlink CA Power

Table 3CC: Downlink CA Power configuration for 3 carrier aggregation. Columns include CA Configuration (BSC), PCC, SCC, and Power (W/C A Tx Power (dBm)).

Table 3CC (continued): Downlink CA Power configuration for 3 carrier aggregation. Columns include CA Configuration (BSC), PCC, SCC1, SCC2, and Power (W/C A Tx Power (dBm)).

Table 4CC: Downlink CA Power configuration for 4 carrier aggregation. Columns include CA Configuration (BSC), PCC, SCC1, SCC2, SCC3, and Power (W/C A Tx Power (dBm)).



SCC		Configure	CA Configuration (CCS)	PCC								SCC1				SCC2				SCC3				SCC4				Power	
LTE Band	BW (MHz)			UL Freq (MHz)	UL Channel	Mod.	ULF RB	UL RB Offset	LTE Band	BW (MHz)	DL Freq (MHz)	DL Channel	LTE Band	BW (MHz)	DL Freq (MHz)	DL Channel	LTE Band	BW (MHz)	DL Freq (MHz)	DL Channel	LTE Band	BW (MHz)	DL Freq (MHz)	DL Channel	W/Ch CA Tx Power (dBm)	W/O CA Tx Power (dBm)			
LTE Band	BW (MHz)			UL Freq (MHz)	UL Channel	Mod.	ULF RB	UL RB Offset	LTE Band	BW (MHz)	DL Freq (MHz)	DL Channel	LTE Band	BW (MHz)	DL Freq (MHz)	DL Channel	LTE Band	BW (MHz)	DL Freq (MHz)	DL Channel	LTE Band	BW (MHz)	DL Freq (MHz)	DL Channel	W/Ch CA Tx Power (dBm)	W/O CA Tx Power (dBm)			
Inter-Band	2A-2A-5A-6A-6A-6A	Band 2	20	1880	18900	QPSK	1	0	Band 2	5	1932.5	625	Band 5	10	881.5	2525	Band 66	20	2120	66536	Band 66	20	2190	67236	24.06	24.35			
	2A-2A-13A-6A-6A-6A	Band 2	20	1880	18900	QPSK	1	0	Band 2	5	1932.5	625	Band 13	10	751	5230	Band 66	20	2120	66536	Band 66	20	2190	67236	24.06	24.35			
	2A-5A-5A-6A-6A-6A	Band 2	20	1880	18900	QPSK	1	0	Band 5	10	881.5	2525	Band 5	10	889	2600	Band 66	20	2120	66536	Band 66	20	2190	67236	24.16	24.35			
	2A-7A-7A-6A-6A-6A	Band 2	20	1880	18900	QPSK	1	0	Band 7	20	2655	3100	Band 7	5	2687.6	3425	Band 66	20	2120	66536	Band 66	20	2190	67236	24.11	24.35			
	2A-4B0-6A	Band 2	20	1880	18900	QPSK	1	0	Band 48	20	3609	55830	Band 48	20	3628.8	56028	Band 48	20	3648.6	56226	Band 66	20	2155	66886	24.12	24.35			
	13A-4B0-6A	Band 13	10	782	23230	QPSK	1	0	Band 48	20	3609	55830	Band 48	20	3628.8	56028	Band 48	20	3648.6	56226	Band 66	20	2155	66886	23.18	23.45			
Intra-Band	Non-Contiguous	13A-4B0-6A	Band 13	10	782	23230	QPSK	1	0	Band 48	20	3609	55830	Band 48	20	3628.8	56028	Band 48	20	3648.6	56226	Band 48	20	3619.4	55934	23.21	23.45		
		41C-41D	Band 41	20	2549.5	40185	QPSK	1	0	Band 41	20	2569.3	40383	Band 41	20	2462.2	41084	Band 41	20	2660.2	41292	Band 41	20	2660	41490	24.49	24.71		

SCC		Configure	CA Configuration (CCS)	PCC								SCC1				SCC2				SCC3				SCC4				SCC5		Power				
LTE Band	BW (MHz)			UL Freq (MHz)	UL Channel	Mod.	ULF RB	UL RB Offset	LTE Band	BW (MHz)	DL Freq (MHz)	DL Channel	LTE Band	BW (MHz)	DL Freq (MHz)	DL Channel	LTE Band	BW (MHz)	DL Freq (MHz)	DL Channel	LTE Band	BW (MHz)	DL Freq (MHz)	DL Channel	LTE Band	BW (MHz)	DL Freq (MHz)	DL Channel	LTE Band	BW (MHz)	DL Freq (MHz)	DL Channel	W/Ch CA Tx Power (dBm)	W/O CA Tx Power (dBm)
LTE Band	BW (MHz)			UL Freq (MHz)	UL Channel	Mod.	ULF RB	UL RB Offset	LTE Band	BW (MHz)	DL Freq (MHz)	DL Channel	LTE Band	BW (MHz)	DL Freq (MHz)	DL Channel	LTE Band	BW (MHz)	DL Freq (MHz)	DL Channel	LTE Band	BW (MHz)	DL Freq (MHz)	DL Channel	LTE Band	BW (MHz)	DL Freq (MHz)	DL Channel	LTE Band	BW (MHz)	DL Freq (MHz)	DL Channel	W/Ch CA Tx Power (dBm)	W/O CA Tx Power (dBm)
Inter-Band		2A-4B0-6A	Band 2	20	1880	18900	QPSK	1	0	Band 48	20	3609	55830	Band 48	20	3628.8	56028	Band 48	20	3648.6	56226	Band 48	20	3619.4	55934	Band 66	20	2155	66886	24.11	24.35			