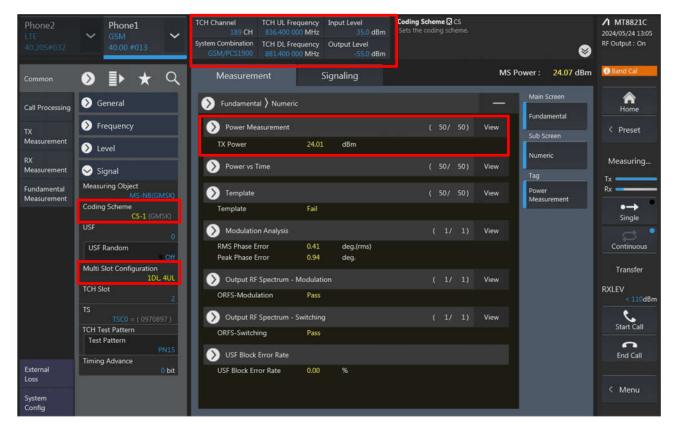


Power measurement connection diagram:

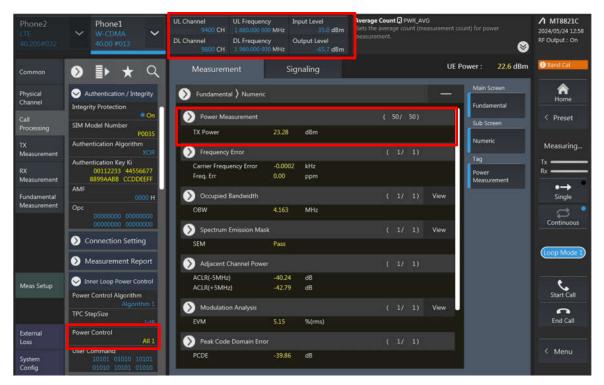
The power measurement for 2G/3G/LTE/5G FR1/UL and DL CA is to establish a connection between device and call box, and via call box to configure Bands, channel, BWs, RB size, carrier aggregation of CA, frequency channels, SCS and maximum output power. Hereunder is screenshot call box connection information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

<u><GSM></u>





<WCDMA>

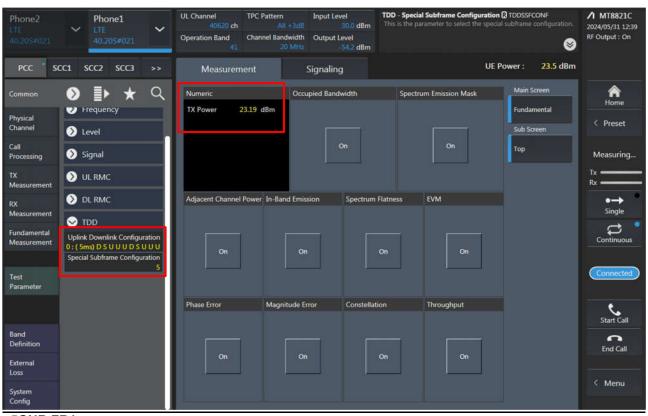


<u> <LTE></u>

Phone2 LTE 40.205#021	~	Phone1 LTE 40.205#021	~	UL Channel 21100 ch Operation Band 7	Channel Bar		Level 30.0 dBm It Level -67.0 dBm	This sets the positive value	• - Main DL R DLEXTLO DL offset at the Main or . The argument tx enab mal signal generator.			MT8821C 2024/05/31 13:15 RF Output : On
PCC SC	CC1. SC	cc2 scc3	>>	Measuren	nent	Signal	ing		ι	JE Power : 2	23.4 dBm	
Common	۲	⊪ ★	ζ	Numeric		Occupied Ba	ndwidth	Spectro	um Emission Mask	Main Scree	2N	A
Physical Channel	🔊 Ge	neral		TX Power	23.01 dBm	_				Fundamen Sub Screet		< Preset
Call	🔊 Fre	equency					On		On	Top		
Processing	🔊 Le					<u> </u>						Measuring Tx
Measurement	🔊 Sig	jnal										Rx
RX Measurement	📎 UL	RMC		Adjacent Channel	Power In-Ba	nd Emission	Spectrum	Flatness	EVM			●→ Single
Fundamental Measurement	🔊 DL	RMC				•						Continuous
	😔 TD	D		On		On		On	On			-
Test Parameter	1:(5ms	Oownlink Configur) D S U U D D S U Subframe Configur	UD									Connected
				Phase Error	Magr	iitude Error	Constellat	ion	Throughput			Start Call
Band Definition												C End Call
External Loss				On		On	_	On	On			
System Config												< Menu



<LTE TDD Power class 3>



<5GNR FR1>

5G NR V08.90	0.21#000 *SA-FDD		Power Measureme	ent - Count 🖪 PWR_AVG	😣 – 💉
PCC Common	scc1 scc2	Operation Band DL Channel Ban	(+3d8 26.5 dBm		۸ MT8000A 2024/05/24 14:11 Ref. Int
Level / Freq Cell	📎 General	Measurement	Signaling	UE Pow	ver : 26.0 dBm
Level / Freq Routing / ARB	🔊 Cell	Numeric	Occupied Bandwidth	Spectrum Emission Wask	Main Screen 🏫 Home
Physical Channel	🔊 Signal	Tx Power 25.88 dBm OBW 18.787 MHz ACLR(-) -53.74 dB			Sub Screen
Call Processing	S UL RMC	ACLR(+) -55.90 dB		On	fop Measuring
Tx Measurement	Waveform DFT-S-OFDM		and millisted		Тх ———
Rx Measurement	Number of RB 1		OBW 18.787 MHz		Rx
OTA	Starting RB 1	Adjacent Channel Power	In-Band Emission	Spectrum Flatness	• > Single
Fundamental	Resource Allocation Type Type1				C •
Measurement	RBG Size		On	On	Continuous
	MCS Index Table Table for 64QAM				NR
	MCS Index 0				Connected
	Modulation PI/2 BPSK	EVM Phase	Error Magnitude Erro	or Constellation	· · · · · · · · · · · · · · · · · · ·
Test	ър-рісо⊭эк ● On				Start Call
Parameter	Aggregation Level				^
External Loss	DL RMC	On	On On	On	End Call
System Config	Uplink Tx Switching	31			< Menu



NR V08.90	.21#000 *SA-FDD		Power Measurer	ment - Count R PWR_AVG	😸 – 🗴
PCC	scc1 scc2 ♦ ≣► ★ Q	DL Center Channel TPC Pattern 126900 / Operation Band DL Channel B 71	VI +3dB 26.5 dBm		MT8000A 2024/05/24 14:12 Ref. Int
evel / Freq ell	Sell	Measurement	Signaling	UE Power :	26.0 dBm
evel / Freq outing / ARB hysical hannel all rocessing k feasurement x Measurement DTA osition undamental Aeasurement	N_TAoffset NR only DL Subcarrier Spacing(data) 15kHz UL Subcarrier Spacing(data) 15kHz BW Setting Mode Symmetric DL Channel Bandwidth 20MHz UL Channel Bandwidth 20MHz DL Number of Additional BWP 0 UL Number of Additional BWP	Numeric Tx Power 25.83 dBm OBW 18.787 MHz ACLR(-) -53.70 dB ACLR(+) -55.93 dB Adjacent Channel Power	Occupied Bandwidth	Spectrum Emission Mask Main S Fundan On Top Spectrum Flatness	nental Home
est arameter xternal oss	BWP1 25 0 25 0 BWP2 25 0 25 0 BWP3 25 0 25 0 BWP4 25 0 25 0 BWP Switch Delay Type Type2 BWP Configuration Option Option2	EVM Phas	e Error Magnitude Er		NR Connected Start Call End Call

PCC	scc1 scc2 ● ■ ★ Q	Operation Band DL Channel Ba	il +3dB 26.5 dBm		®) 10	MT8000A 2024/05/24 14:12 Ref. int
Level / Freq Cell	S Frequency	Measurement	Signaling	UEF	Power : 25.9 dBm	
Level / Freq Routing / AR	UL Offset To Carrier	Numeric	Occupied Bandwidth	Spectrum Emission Mask	Main Screen	A Home
Physical Channel	504 PointA Channel	Tx Power 25.84 dBm OBW 18.787 MHz ACLR(-) -53.57 dB	كأدهد أكر		Fundamental Sub Screen	< Preset
Call Processing	116048 PointA Frequency 580,240 000 MHz	ACLR(+) -55.98 dB		On	Тор	Measuring
Tx Measuremen	nt Center Channel 136100		and Mulhided him			Tx
Rx Measuremen	Center Frequency at 680.500 000 MHz		OBW 18.787 MHz			Rx
OTA Position	7.5 kHz Frequency Shift Off	Adjacent Channel Power	In-Band Emission	Spectrum Flatness		•-> Single
Fundamental Measuremen	Offect To Carrier					Continuous
	PointA Channel 121320		On	On		NR
	PointA Frequency 606,600 000 MHz					Connected
	Center Channel 126900	EVM Phase	Error Magnitude Erro	or Constellation		
	Center Frequency 634,500 000 MHz					Start Call
Test Parameter	Absolute Frequency SSB 125550					
External Loss	SSB Frequency 627.750 000 MHz	On	On On	On		End Call
System	Channel Setting Mode Lowest GSCN Operation Band					< Menu
Config	Operation band	L	2			



LTE Uplink and Downlink Carrier Aggregation configurations:

Phone2 LTE 40.105#045	✓ Phone1 LTE 40.105#045	~		PC Pattern Auto hannel Bandwidth 5 MHz	Input Level -1.0 dBm Output Level -60.2 dBm	This tab is used to configur Carrier on LTE-A. A Blue Dot in this tab indic configured.	ates that the compone	nt carrier is	MT8821C 2024/01/25 13:26 RF Output : On
PCC S	cc1 scc2 scc3		Measuremer	it :	Signaling		UE Power :	-52.6 dBm	Band Cal
		Q	Numeric	Occu	pied Bandwidth	Spectrum Emission	Mask Ma	in Screen	Home
Physical Channel	📎 General		Freq. Err	dBm ppm %(rms)	r			damental Screen	< Preset
Call	Frequency						Тор	,	
Processing TX	🔊 Level								тх ———
Measurement	🔊 Signal			1.000					Rx
RX Measurement	📎 UL RMC		Adjacent Channel Po	wer In-Band Emis	ion Spectrum	Flatness EVM			•→ Single
Fundamental Measurement	📎 DL RMC						-		Continuous
measurement	DDT 🔇			On					
Test Parameter									Idle
			Phase Error	Magnitude Er	ror Constellat	tion Throughpt	ıt		Start Call
Band Definition									End Call
External Loss			On	On		On	On		
System Config									< Menu

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)]

Phone2 17E 40.105#045		DL Channel TPC Patter 200 ch Operation Band Channel Br 1	Auto -1.0 dBm	Channel Coding [1xC] © CHCODING This sets the channel configuration. Us Measurement Channel based on the ma TS365/08 and TS36521-1, for TRX testin	easurement standards g based on measureme	MT8821C 2024/01/25 13:26 RF Output : On DL 2CCS UL 2CCS
PCC S	cc1 scc2 scc3 >>	Measurement	Signaling	UE	Power : -58.1 dBm	Band Cal
	🔊 🗈 \star Q	Numeric	Occupied Bandwidth	Spectrum Emission Mask	Main Screen	A
Physical Channel	📎 General	TX Power dBm Freq. Err ppm EVM %(rm)	s)	,	Fundamental Sub Screen	< Preset
Call	> Frequency		On		Тор	
Processing	Level					Tx
TX Measurement	😔 Signal					Rx
RX Measurement	Channel Coding RMC(DL/UL CA)	Adjacent Channel Power In-B	land Emission Spectrum Fl	atness EVM		● → Single
Fundamental	Antenna Combination Common	<i>•</i>				0
Measurement	Antenna Configuration Single Antenna(TML)			in On		Continuous
	Beamforming					Idle
Test Parameter	DCI Format for Single Antenna 1A					
	Propagation Matrix None	Phase Error Mag	gnitude Error Constellatio	n Throughput		٤.
Band	User Define Channel Model (Channel 1to1/2/3/4 Gain/Phase)					Start Call
Definition	1.00 0.0 degree 0.00 0.0 degree					End Call
External	0.00 0.0 degree 0.00 0.0 degree			on On		-
Loss	(Channel 2to1/2/3/4 Gain/Phase)					< Menu
System Config	0.00 0.0 degree 1.00 0.0 degree 0.00 0.0 degree					



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

Appendix F

Phone2 17E 40.105#045	✓ Phone1 LTE 40.105#045	DL Channel TPC Patte 39750 ch Operation Band Channel 8	All +3d8 30.0 dBm	Modulation Analysis [] MOD_MEAS This sets whether to perform modulation a	wiysis. A MT8 2024/01/2 RF Output DL 2CCs UL 2CCs C	25 14:29 t : On
PCC SC	cc1°scc2 scc3 >>	Measurement	Signaling	UE Po	ver : -15.2 dBm Dand C	Cel
Common	(1) ★ Q	Numeric	Occupied Bandwidth	Spectrum Emission Mask	Main Screen	
Physical Channel	📎 General	TX Power dBm PCC Freq. Err ppm PCC EVM %(m SCC-1 Freq. Err ppm	e)		Fundamental Sub Screen	
Call Processing	Frequency Frame Structure	SCC-I EVM %(m	s) On		Top Sto	op
TX Measurement	Channel Bandwidth 20 MHz	3			Tx	=
RX Measurement	UL Channel 39750 ch	Adjacent Channel Power In-E	land Emission Spectrum	i Flatness EVM	•- Sine	
Fundamental Measurement	rrequency 2 506.000 000 MHz DL Channel	On		On On	Contin	
Test Parameter	39750 ch Frequency 2 506.000 000 MHz					le
	Operation Band 41 Frequency Separation	Phase Error Mai	gnitude Error Constella	tion Throughput	Start	Call
Band Definition	D.000 MHz				End	-
External Loss	Signal	On	On	On On	< Me	22011
System Config	UL RMC				K Me	nu

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

Phone2	✓ Phone1 LTE ✓	DL Channel 39750 ch	TPC Pattern All +3dB Channel Bandwidth	Input Level 30.0 dBm	Modulation Analysis 🕻 MOD_MEAS This sets whether to perform modulation		MT8821C 2024/01/25 14:30 RF Output : On
40.105#045	40.105#045	Operation Band 41	20 MHz	Output Level -542 dBm		8	DL 2CCs UL 2CCs Cont.
PCC SC	.c1* scc2 scc3 >>	Measurem	ent	Signaling	UE F	Power : -15.5 dBm	Band Cal
tommon	Ď 🗈 \star વ	Numeric	Capito Inc.	pied Bandwidth	Spectrum Emission Mask	Main Screen	A Home
Physical Channel	📎 General	TX Power PCC Freq. Err PCC EVM	d8m ppm %(rms)			Fundamental Sub Screen	< Preset
Call	Frequency	SCC-1 Freq.Err SCC-1 EVM	ppm %(rms)			Тор	Stop
Processing TX	Devel						тх ———
Measurement	🕥 Signal						Rx
RX Measurement	UL RMC	Adjacent Channel	Power In-Band Emis	sion Spectrum	Flatness EVM		•> Single
Fundamental	UL Allocation Mode Normal						\$
Measurement	RB Pos. Min(#0)	On	On				Continuous
Test	Number of RB 100	a '					Idle
Parameter	Starting R8	e					
	Max UL Throughput 3504 kbps	Phase Error	Magnitude Er	rror Constellat	tion Throughput		Start Call
Band	MCS Index 5 QPSK 5 8760 8						2
Definition	64QAM Disabled		On				End Call
External Loss	256QAM Disabled						< Menu
System Config	DL RMC	l_					, Mena



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

Appendix F

Phone2	V Phone1	DL Channel Activation 39948 ch	n Output On On	This tab is used to configure parameters of Carrier on LTE-A.		A MT8821C 2024/01/25 14:30
40.105#045	40.105#045	Operation Band Channel B	landwidth Output Level 20 MHz -54.2 dBm	A Blue Dot in this tab indicates that the conconfigured.	nponent carrier is	RF Output : On DL 2CCs UL 2CCs Cont.
PCC •	scc1 scc2 scc3 >>	Measurement	Signaling	UE Po	wer : - 15.5 dBm	Band Cal
Common	 > 1> * 	Numeric	Occupied Bandwidth	Spectrum Emission Mask	Main Screen	A
Physical Channel	Serequency	TX Power dBm PCC Freq. Err ppm PCC EVM %(rr	ns)		Fundamental Sub Screen	< Preset
	Frame Structure TDD LAA mode	SCC-1 Freq. Err ppr SCC-1 EVM %(rr	ns) On		тор	Stop
	Channel Bandwidth 20 MHz	3				Tx
	Channel 39948 ch	Adjacent Channel Power In-I	Band Emission Spectrum	Flatness EVM		●> Single
	Frequency 2 525,800 000 MHz					Continuous
	DL Channel 39948 ch	On				
	Frequency 2 525,800 000 MHz					
	Operation Band 41	Phase Error Ma	gnitude Error Constella	tion Throughput		ر.
Band	0.000 MHz					Start Call
Definition	Devel	On				End Call
External Loss	Signal					< Menu
System Config	SUL RMC	المسلي				A MERIC

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

Phone2 17E 40.105#045	✓ Phone1 LTE 40.105#045	DL Channel Activation 39948 ch Operation Band Channel Ban 41	On Output On On On On On Output Level 20 MHz -54.2 dBm	This tab is used to configure parameters of Carrier on LTE-A. A Blue Dot in this tab indicates that the co configured.	mponent carrier is W Dutput : On DL 2CCs UL 2CCs Cont.	30
PCC S	cc1 [*] sec2 scc3 >>	Measurement	Signaling	UE P	ower: -15.5 dBm 🚺 Band Cal	
Common		Numeric	Occupied Bandwidth	Spectrum Emission Mask	Main Screen 6	
Physical Channel	S Frequency	TX Power dBm PCC Freq. Err ppm PCC EVM %(ms SCC-1 Freq. Err ppm	,		Fundamental / Preset	Ī
	Level	SCC-1 EVM %(rms) On		Top Stop	
	📎 Signal				тх	
	SUL RMC				Rx	
	RB Pos. Min(P0)	Adjacent Channel Power In-Ba	and Emission Spectrum	Flatness EVM	•> Single	
	Number of RB	2			C	•
	Starting RB	On	on	on On	Continuous	
	3504 kbpa				Idle	D
	MCS Index 5 (QPSK 5 8760 8					
	DL RMC	Phase Error Mag	nitude Error Constellati	ion Throughput	Start Call	
Band Definition	TDD				End Call	
External Loss		On	On	On On		
System Config					< Menu	



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

Phone2 17E 40.105#045	V Phone1 LTE V 40.105#045	DL Channel TPC Patter 197750 ch Operation Band Channel Br 41	All +3dB 30.0 dBm	Modulation Analysis 🕅 MOD_MEAS This sets whether to perform modulation analys	
PCC SC	cc1° scc2 scc3 >>	Measurement	Signaling	UE Power	
Common	 ▶ ★ Q Authentication / Integrity 	Numeric TX Power dBm PCC Freq. Err ppm		Spectrum Emission Mask	ain Screen Arme Home
Channel Call Processing	SIM Model Number P0250	PCC EVM ***** %(m SCC-1 Freq.Err ***** ppm SCC-1 EVM ***** %(m		Cn To	b Screen P Stop
TX Measurement	Authentication Algorithm				Tx
RX Measurement	Authentication Key K 00010203 04050607 08090A08 0C0D0E0F	Adjacent Channel Power In-B	land Emission Spectrum	i Flatness EVM	●→ Single
Fundamental Measurement	AMF 8000 OPc 0000000 00000000 00000000 000000000	On		on On	Continuous
Test Parameter	Integrity Protection Snow 3G	D			
	S RMC	Phase Error May	gnitude Error Constellat	tion Throughput	Start Call
Band Definition	✓ Power Control TPC Pattern All +3dB				End Call
External Loss	Power Control Unset	On	On	On On	
System Config	p-Max 33 On p-Max Update Procedure				< Menu

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

Phone2 LTE 40.105#045	✓ Phone1 LTE 40.105#045	DL Channel TPC Pattern 39750 ch All +30 Operation Band Channel Bandwidt 41 20 Mb	th Output Leve) dBm I 2 dBm	This tab is used to configure parameter Carrier on LTE-A. A Blue Dot in this tab indicates that the configured.	component carrier is	▲ MT8821C 2024/01/25 16:26 RF Output : On DL 2CCs UL 2CCs Cont.
PCC S	cc1° scc2 scc3 >>	Measurement	Signaling		UE	Power : 21.3 dBm	Band Cal
Common		Sundamental Numeric				Main Screen	A Home
Physical Channel	Sequency	Power Measurement				Fundamental Sub Screen	< Preset
Call	> Level	Total		Max.	Min.	Numeric	Measuring
Processing	📎 Signal	TX Power PCC	22.38	22.38	22.38 dBm	Tag	(UL CA Tx)
TX Measurement	SUL RMC	TX Power Channel Power		21.85 21.84	21.85 dBm 21.84 dBm	Power	Rx
RX	UL Allocation Mode	SCC-1				Measurement	•→
Measurement	Normal RB Pos.	TX Power Channel Power		13.02 13.02	13.02 dBm 13.02 dBm	5	Single
Fundamental	Min(#2)			HOMAN I -		\mathbf{v}	
Measurement	Number of RB 100						Continuous
	Starting RB					2	Connected
Test Parameter	Max UL Throughput 3504 kbps					e	
	MCS Index 5 QPSK 5 8760 8					1	Start Call
Band	64QAM Disabled						Start Car
Definition	256QAM Disabled					6	End Call
External Loss	DL RMC						
System Config	DD TDD						< Menu