

LTE Downlink Carrier Aggregation configurations

1. DL Inter Band(2CC)

E-UTRA CA configuration	Bandwidth Combination Set	E-UTRA Band	Bandwidth						Max Aggregated BW
			1.4 MHz	3 MHz	5 MHz	10 MHz	15 MHz	20 MHz	
2A-4A	(0)	Band 2	Yes	Yes	Yes	Yes	Yes	Yes	40
		Band 4			Yes	Yes	Yes	Yes	
	(1)	Band 2			Yes	Yes			20
		Band 4			Yes	Yes			
(2)	Band 2			Yes	Yes	Yes	Yes	40	
	Band 4			Yes	Yes	Yes	Yes		
2A-5A	(0)	Band 2			Yes	Yes	Yes	Yes	30
		Band 5			Yes	Yes			
2A-12A	(0)	Band 2			Yes	Yes	Yes	Yes	30
		Band 12			Yes	Yes			
	(1)	Band 2			Yes	Yes	Yes	Yes	30
		Band 12		Yes	Yes	Yes			
(2)	Band 2			Yes	Yes			20	
	Band 12			Yes	Yes				
2A-13A	(0)	Band 2			Yes	Yes	Yes	Yes	30
		Band 13				Yes			
	(1)	Band 2			Yes	Yes			20
		Band 13				Yes			
(2)	Band 2			Yes	Yes	Yes	Yes	20	
	Band 13			Yes	Yes				
2A-14A	(0)	Band 2			Yes	Yes	Yes	Yes	30
		Band 14			Yes	Yes			
2A-29A	(0)	Band 2			Yes	Yes			20
		Band 29		Yes	Yes	Yes			
	(1)	Band 2			Yes	Yes			20
		Band 29			Yes	Yes			
(2)	Band 2			Yes	Yes	Yes	Yes	30	
	Band 29			Yes	Yes				
2A-30A	(0)	Band 2			Yes	Yes	Yes	Yes	30
		Band 30			Yes	Yes			
2A-48A	(0)	Band 2			Yes	Yes	Yes	Yes	40
		Band 48			Yes	Yes	Yes	Yes	
2A-66A	(0)	Band 2	Yes	Yes	Yes	Yes	Yes	Yes	40
		Band 66			Yes	Yes	Yes	Yes	
	(1)	Band 2			Yes	Yes			20
		Band 66			Yes	Yes			
(2)	Band 2			Yes	Yes	Yes	Yes	40	
	Band 66			Yes	Yes	Yes	Yes		
2A-71A	(0)	Band 2			Yes	Yes	Yes	Yes	40
		Band 71			Yes	Yes	Yes	Yes	
	(1)	Band 2			Yes	Yes			20
		Band 71			Yes	Yes			
4A-5A	(0)	Band 4			Yes	Yes			20
		Band 5			Yes	Yes			
	(1)	Band 4			Yes	Yes	Yes	Yes	30
4A-12A	(0)	Band 4	Yes	Yes	Yes	Yes			20
		Band 12			Yes	Yes			
	(1)	Band 4	Yes	Yes	Yes	Yes	Yes	Yes	30
		Band 12		Yes	Yes	Yes			
	(2)	Band 4			Yes	Yes	Yes	Yes	30
		Band 12		Yes	Yes	Yes			
	(3)	Band 4			Yes	Yes			20
		Band 12			Yes	Yes			
	(4)	Band 4			Yes	Yes	Yes	Yes	30
		Band 12			Yes	Yes			
	(5)	Band 4			Yes	Yes	Yes		20
		Band 12			Yes	Yes			

2. DL Inter Band(3CC)

E-UTRA CA configuration	Bandwidth Combination Set	E-UTRA Band	Bandwidth						Max Aggregated BW
			1.4 MHz	3 MHz	5 MHz	10 MHz	15 MHz	20 MHz	
2A-2A-4A	(0)	Band 2	2A-2A BCS 0						60
		Band 4			Yes	Yes	Yes	Yes	
2A-2A-5A	(0)	Band 2	2A-2A BCS 0						50
		Band 5			Yes	Yes			
2A-2A-12A	(0)	Band 2	2A-2A BCS 0						50
		Band 12			Yes	Yes			
2A-2A-13A	(0)	Band 2	2A-2A BCS 0						50
		Band 13			Yes	Yes			
	(1)	Band 13			Yes	Yes			50
2A-2A-14A	(0)	Band 2	2A-2A BCS 0						50
		Band 14			Yes	Yes			
2A-2A-29A	(0)	Band 2	2A-2A BCS 0						50
		Band 29			Yes	Yes			
2A-2A-30A	(0)	Band 2	2A-2A BCS 0						50
		Band 30			Yes	Yes			
2A-2A-66A	(0)	Band 2	2A-2A BCS 0						60
		Band 66			Yes	Yes	Yes	Yes	
2A-2A-71A	(0)	Band 2	2A-2A BCS 0						60
		Band 71			Yes	Yes	Yes	Yes	
2A-4A-4A	(0)	Band 2	4A-4A BCS 0						60
		Band 4			Yes	Yes	Yes	Yes	
2A-4A-5A	(0)	Band 4			Yes	Yes	Yes	Yes	50
		Band 5			Yes	Yes			
		Band 2			Yes	Yes	Yes	Yes	
2A-4A-12A	(0)	Band 4			Yes	Yes	Yes	Yes	50
		Band 12			Yes	Yes			
		Band 2			Yes	Yes	Yes	Yes	
2A-4A-13A	(0)	Band 2			Yes	Yes	Yes	Yes	50
		Band 4			Yes	Yes	Yes	Yes	
		Band 13				Yes			
2A-4A-71A	(0)	Band 2			Yes	Yes	Yes	Yes	60
		Band 71			Yes	Yes	Yes	Yes	
2A-5A-30A	(0)	Band 2			Yes	Yes	Yes	Yes	40
		Band 5			Yes	Yes			
		Band 30			Yes	Yes			
2A-5A-48A	(0)	Band 2	Yes	Yes	Yes	Yes	Yes	Yes	50
		Band 5			Yes	Yes			
		Band 48			Yes	Yes	Yes	Yes	
2A-5A-66A	(0)	Band 2			Yes	Yes	Yes	Yes	50
		Band 5			Yes	Yes			
		Band 66			Yes	Yes	Yes	Yes	
2A-12A-30A	(0)	Band 2			Yes	Yes	Yes	Yes	40
		Band 12			Yes	Yes			
		Band 30			Yes	Yes			
2A-12A-66A	(0)	Band 2			Yes	Yes	Yes	Yes	50
		Band 12			Yes	Yes			
		Band 66			Yes	Yes	Yes	Yes	
2A-12B	(0)	Band 2	12B BCS 0						35
		Band 12			Yes	Yes	Yes	Yes	
2A-13A-48A	(0)	Band 2			Yes	Yes	Yes	Yes	50
		Band 13			Yes	Yes			
		Band 48			Yes	Yes	Yes	Yes	
2A-13A-66A	(0)	Band 2			Yes	Yes	Yes	Yes	50
		Band 13			Yes	Yes			
		Band 66			Yes	Yes	Yes	Yes	

3. DL Inter Band(4CC)

E-UTRA CA configuration	Bandwidth Combination Set	E-UTRA Band	Bandwidth						Max Aggregated BW
			1.4 MHz	3 MHz	5 MHz	10 MHz	15 MHz	20 MHz	
2A-2A-4A-4A	(0)	Band 2	2A-2A BCS 0						80
		Band 4			4A-4A BCS 0				
2A-2A-4A-5A	(0)	Band 2	2A-2A BCS 0						70
		Band 4			Yes	Yes	Yes	Yes	
	(1)	Band 5			Yes	Yes			
		Band 2			Yes	Yes			
2A-2A-4A-12A	(0)	Band 2	2A-2A BCS 0						70
		Band 4			Yes	Yes	Yes	Yes	
		Band 12			Yes	Yes			
2A-2A-4A-71A	(0)	Band 2	2A-2A BCS 0						80
		Band 4			Yes	Yes	Yes	Yes	
	(1)	Band 71			Yes	Yes	Yes	Yes	
		Band 2			Yes	Yes			
2A-2A-5A-30A	(0)	Band 2	2A-2A BCS 0						60
		Band 5			Yes	Yes			
		Band 30			Yes	Yes			
2A-2A-5A-66A	(0)	Band 2	2A-2A BCS 0						70
		Band 5			Yes	Yes			
		Band 66			Yes	Yes	Yes	Yes	
2A-2A-12A-30A	(0)	Band 2	2A-2A BCS 0						60
		Band 12			Yes	Yes			
		Band 30			Yes	Yes			
2A-2A-12A-66A	(0)	Band 2	2A-2A BCS 0						70
		Band 12			Yes	Yes			
		Band 66			Yes	Yes	Yes	Yes	
2A-2A-12B	(0)	Band 2	2A-2A BCS 0						55
		Band 12			12B BCS 0				
		Band 2	2A-2A BCS 0						
2A-2A-13A-66A	(0)	Band 13			Yes	Yes			70
		Band 66			Yes	Yes	Yes	Yes	
		Band 2	2A-2A BCS 0						
2A-2A-14A-30A	(0)	Band 2	2A-2A BCS 0						60
		Band 14			Yes	Yes			
		Band 30			Yes	Yes			
2A-2A-14A-66A	(0)	Band 2	2A-2A BCS 0						70
		Band 14			Yes	Yes			
2A-2A-29A-30A	(0)	Band 2	2A-2A BCS 0						60
		Band 29			Yes	Yes			
		Band 30			Yes	Yes			
2A-2A-29A-66A	(0)	Band 2	2A-2A BCS 0						70
		Band 29			Yes	Yes			
		Band 66			Yes	Yes	Yes	Yes	
2A-2A-30A-66A	(0)	Band 2	2A-2A BCS 0						70
		Band 30			Yes	Yes			
		Band 66			Yes	Yes	Yes	Yes	
2A-2A-66A-66A	(0)	Band 2	2A-2A BCS 0						80
		Band 66			66A-66A BCS 0				
		Band 2	2A-2A BCS 0						
2A-2A-66A-71A	(0)	Band 66			Yes	Yes	Yes	Yes	80
		Band 71			Yes	Yes	Yes	Yes	
2A-2A-66B	(0)	Band 2	2A-2A BCS 0						60
		Band 66			66B BCS 0				
2A-2A-66C	(0)	Band 2	2A-2A BCS 0						80
		Band 66			66C BCS 0				
2A-4A-4A-5A	(0)	Band 2			Yes	Yes	Yes	Yes	70
		Band 4			4A-4A BCS 0				
		Band 5			Yes	Yes			
2A-4A-4A-12A	(0)	Band 2			Yes	Yes	Yes	Yes	70
		Band 4			4A-4A BCS 0				
		Band 12			Yes	Yes			

LTE Downlink Carrier Aggregation configurations (Continued)

1. DL Inter Band(2CC)

E-UTRA CA configuration	Bandwidth Combination Set	E-UTRA Band	Bandwidth					Max Aggregated BW	
			1.4 MHz	3 MHz	5 MHz	10 MHz	15 MHz		20 MHz
4A-13A	(0)	Band 4			Yes	Yes	Yes	Yes	30
	(1)	Band 13				Yes			20
4A-48A	(0)	Band 4			Yes	Yes	Yes	Yes	40
		Band 48			Yes	Yes	Yes	Yes	
4A-71A	(0)	Band 4			Yes	Yes	Yes	Yes	40
		Band 71			Yes	Yes	Yes	Yes	
5A-25A	(0)	Band 5			Yes	Yes			30
		Band 25			Yes	Yes	Yes	Yes	
5A-30A	(0)	Band 5			Yes	Yes			20
		Band 30			Yes	Yes			
5A-41A	(0)	Band 5			Yes	Yes		Yes	30
		Band 41						Yes	
5A-48A	(0)	Band 5			Yes	Yes			30
		Band 48			Yes	Yes	Yes	Yes	
5A-66A	(0)	Band 5			Yes	Yes			30
		Band 66			Yes	Yes	Yes	Yes	
12A-25A	(0)	Band 12			Yes	Yes			30
		Band 25			Yes	Yes	Yes	Yes	
12A-30A	(0)	Band 12			Yes	Yes			20
		Band 30			Yes	Yes			
12A-66A	(0)	Band 12			Yes	Yes			20
		Band 66	Yes	Yes	Yes	Yes			
	(1)	Band 12			Yes	Yes			30
		Band 66	Yes	Yes	Yes	Yes	Yes	Yes	
	(2)	Band 12		Yes	Yes	Yes			30
		Band 66			Yes	Yes			
	(3)	Band 12			Yes	Yes			20
		Band 66			Yes	Yes			
(4)	Band 12			Yes	Yes	Yes	Yes	30	
	Band 66			Yes	Yes				
13A-48A	(0)	Band 13			Yes	Yes			30
		Band 48			Yes	Yes	Yes	Yes	
13A-66A	(0)	Band 13			Yes	Yes			30
		Band 66			Yes	Yes	Yes	Yes	
14A-30A	(0)	Band 14			Yes	Yes			20
		Band 30			Yes	Yes			
14A-66A	(0)	Band 14			Yes	Yes			30
		Band 66			Yes	Yes	Yes	Yes	
25A-41A	(0)	Band 25			Yes	Yes	Yes	Yes	40
		Band 41			Yes	Yes	Yes	Yes	
29A-30A	(0)	Band 29			Yes	Yes			20
		Band 30			Yes	Yes			
29A-66A	(0)	Band 29			Yes	Yes			30
		Band 66			Yes	Yes	Yes	Yes	
30A-66A	(0)	Band 30			Yes	Yes			30
		Band 66			Yes	Yes	Yes	Yes	

2. DL Inter Band(3CC)

E-UTRA CA configuration	Bandwidth Combination Set	E-UTRA Band	Bandwidth					Max Aggregated BW		
			1.4 MHz	3 MHz	5 MHz	10 MHz	15 MHz		20 MHz	
2A-14A-30A	(0)	Band 2			Yes	Yes	Yes	Yes	40	
		Band 14			Yes	Yes				
		Band 30			Yes	Yes				
2A-14A-66A	(0)	Band 2			Yes	Yes	Yes	Yes	50	
		Band 14			Yes	Yes				
		Band 66			Yes	Yes	Yes	Yes		
2A-29A-30A	(0)	Band 2			Yes	Yes	Yes	Yes	40	
		Band 29			Yes	Yes				
		Band 30			Yes	Yes				
2A-29A-66A	(0)	Band 2			Yes	Yes	Yes	Yes	50	
		Band 29			Yes	Yes				
		Band 66			Yes	Yes	Yes	Yes		
2A-30A-66A	(0)	Band 2			Yes	Yes	Yes	Yes	50	
		Band 30			Yes	Yes				
		Band 66			Yes	Yes	Yes	Yes		
2A-48A-48A	(0)	Band 2			Yes	Yes	Yes	Yes	60	
		Band 48			Yes	Yes	Yes	Yes		
		Band 48			48A-48A BCS 0					
2A-48A-66A	(0)	Band 2			Yes	Yes	Yes	Yes	60	
		Band 48			Yes	Yes	Yes	Yes		
		Band 66			Yes	Yes	Yes	Yes		
2A-48C	(0)	Band 2			Yes	Yes	Yes	Yes	60	
		Band 48			48C BCS 0					
		Band 66			Yes	Yes	Yes	Yes		
2A-66A-66A	(0)	Band 2			Yes	Yes	Yes	Yes	60	
		Band 66			66A-66A BCS 0					
		Band 66			Yes	Yes	Yes	Yes		
2A-66A-71A	(0)	Band 2			Yes	Yes	Yes	Yes	60	
		Band 66			Yes	Yes	Yes	Yes		
		Band 71			Yes	Yes	Yes	Yes		
2A-66B	(0)	Band 2			Yes	Yes	Yes	Yes	40	
		Band 66			66B BCS 0					
2A-66C	(0)	Band 2			Yes	Yes	Yes	Yes	60	
		Band 66			66C BCS 0					
2C-66A	(0)	Band 2			66C BCS 0				60	
		Band 66			Yes	Yes	Yes	Yes		
4A-4A-5A	(0)	Band 4			4A-4A BCS 0				50	
		Band 5			Yes	Yes				
4A-4A-12A	(0)	Band 4			4A-4A BCS 0				50	
		Band 12			Yes	Yes				
4A-4A-13A	(0)	Band 4			4A-4A BCS 0				50	
		Band 13			Yes					
4A-4A-71A	(0)	Band 4			4A-4A BCS 0				60	
		Band 71			Yes	Yes	Yes	Yes		
4A-12B	(0)	Band 4			Yes	Yes	Yes	Yes	35	
		Band 12			12B BCS 0					
4A-48C	(0)	Band 4			Yes	Yes	Yes	Yes	60	
		Band 48			48C BCS 0					
5A-30A-66A	(0)	Band 5			Yes	Yes			40	
		Band 30			Yes	Yes				
		Band 66			Yes	Yes	Yes	Yes		
5A-48A-66A	(0)	Band 5			Yes	Yes			50	
		Band 48			Yes	Yes	Yes	Yes		
		Band 66			Yes	Yes	Yes	Yes		
5A-48C	(0)	Band 5			Yes	Yes			50	
		Band 48			48C BCS 0					
5A-66A-66A	(0)	Band 5			Yes	Yes			50	
		Band 66			66A-66A BCS 0					

3. DL Inter Band(4CC)

E-UTRA CA configuration	Bandwidth Combination Set	E-UTRA Band	Bandwidth					Max Aggregated BW	
			1.4 MHz	3 MHz	5 MHz	10 MHz	15 MHz		20 MHz
2A-4A-12B	(0)	Band 2			Yes	Yes	Yes	Yes	55
		Band 4			Yes	Yes	Yes	Yes	
		Band 12			12B BCS 0				
2A-5A-30A-66A	(0)	Band 2			Yes	Yes	Yes	Yes	60
		Band 5			Yes	Yes			
		Band 30			Yes	Yes			
		Band 66			Yes	Yes	Yes	Yes	
2A-5A-48C	(0)	Band 2	Yes	Yes	Yes	Yes	Yes	Yes	70
		Band 5			Yes	Yes			
		Band 48			48C BCS 0				
2A-5A-66A-66A	(0)	Band 2			Yes	Yes	Yes	Yes	70
		Band 5			Yes	Yes			
		Band 66			66A-66A BCS 0				
2A-5A-66B	(0)	Band 2			Yes	Yes	Yes	Yes	50
		Band 5			Yes	Yes			
		Band 66			66B BCS 0				
2A-5A-66C	(0)	Band 2			Yes	Yes			70
		Band 5			Yes	Yes			
		Band 66			66C BCS 0				
2A-12A-30A-66A	(0)	Band 2			Yes	Yes	Yes	Yes	60
		Band 12			Yes	Yes			
		Band 30			Yes	Yes			
		Band 66			Yes	Yes	Yes	Yes	
2A-12A-66A-66A	(0)	Band 2			Yes	Yes	Yes	Yes	70
		Band 66			66A-66A BCS 0				
2A-12A-66C	(0)	Band 2			Yes	Yes	Yes	Yes	70
		Band 66			66C BCS 0				
2A-12B-66A	(0)	Band 2			Yes	Yes	Yes	Yes	55
		Band 12			12B BCS 0				
2A-13A-48A-66A	(0)	Band 2			Yes	Yes	Yes	Yes	70
		Band 13			Yes	Yes			
		Band 48			Yes	Yes	Yes	Yes	
		Band 66			Yes	Yes	Yes	Yes	
2A-13A-48C	(0)	Band 2			Yes	Yes			70
		Band 13			Yes	Yes			
		Band 48			48C BCS 0				
2A-13A-66A-66A	(0)	Band 2			Yes	Yes	Yes	Yes	70
		Band 13			Yes	Yes			
		Band 66			66A-66A BCS 0				
2A-13A-66B	(0)	Band 2			Yes	Yes	Yes	Yes	50
		Band 13			Yes	Yes			
		Band 66			66B BCS 0				
2A-13A-66C	(0)	Band 2			Yes	Yes	Yes	Yes	70
		Band 13			Yes	Yes			
		Band 66			66C BCS 0				
2A-14A-30A-66A	(0)	Band 2			Yes	Yes	Yes	Yes	60
		Band 14			Yes	Yes			
		Band 30			Yes	Yes			
		Band 66			Yes	Yes	Yes	Yes	
2A-14A-66A-66A	(0)	Band 2			Yes	Yes	Yes	Yes	70
		Band 14			Yes	Yes			

LTE Downlink Carrier Aggregation configurations (Continued)

2. DL Inter Band(3CC)

E-UTRA CA configuration	Bandwidth Combination Set	E-UTRA Band	Bandwidth						Max Aggregated BW
			1.4 MHz	3 MHz	5 MHz	10 MHz	15 MHz	20 MHz	
5A-66B	(0)	Band 5 Band 66			Yes	Yes			30
5A-66C	(0)	Band 66			66C BCS 0				50
12A-30A-66A	(0)	Band 12 Band 30 Band 66			Yes	Yes			40
12A-66A-66A	(0)	Band 12 Band 66			Yes	Yes	Yes	Yes	50
12A-66C	(0)	Band 12 Band 66			Yes	Yes			50
12B-66A	(0)	Band 12 Band 66			12B BCS 0				35
13A-48A-66A	(0)	Band 13 Band 48 Band 66			Yes	Yes	Yes	Yes	50
13A-48B	(0)	Band 13 Band 48			48B BCS 0				30
13A-48C	(0)	Band 13 Band 48			48C BCS 0				50
13A-66A-66A	(0)	Band 13 Band 66			Yes	Yes			50
13A-66B	(0)	Band 13 Band 66			66A-66A BCS 0				30
13A-66C	(0)	Band 13 Band 66			66B BCS 0				50
14A-30A-66A	(0)	Band 14 Band 30 Band 66			Yes	Yes	Yes	Yes	40
14A-66A-66A	(0)	Band 14 Band 66			Yes	Yes			50
25A-41C	(0)	Band 25 Band 41			Yes	Yes	Yes	Yes	60
29A-30A-66A	(0)	Band 29 Band 30 Band 66			Yes	Yes	Yes	Yes	40
29A-66A-66A	(0)	Band 29 Band 66			66A-66A BCS 0				50
30A-66A-66A	(0)	Band 30 Band 66			66A-66A BCS 0				50
48A-48A-66A	(0)	Band 48			48A-48A BCS 0				60
48A-48A-71A	(0)	Band 48 Band 71			Yes	Yes	Yes	Yes	60
48A-66A-66A	(0)	Band 48 Band 66			66A-66A BCS 0				60
48A-66B	(0)	Band 48 Band 66			66B BCS 0				40
48A-66C	(0)	Band 48 Band 66			Yes	Yes	Yes	Yes	60
48B-66A	(0)	Band 48 Band 66			48B BCS 0				40
48C-66A	(0)	Band 48 Band 66			48C BCS 0				60
48C-71A	(0)	Band 48 Band 71			Yes	Yes	Yes	Yes	60
66A-66A-71A	(0)	Band 66 Band 71			66A-66A BCS 0				60
66C-71A	(0)	Band 66 Band 71			66C BCS 0				60

3. DL Inter Band(4CC)

E-UTRA CA configuration	Bandwidth Combination Set	E-UTRA Band	Bandwidth						Max Aggregated BW
			1.4 MHz	3 MHz	5 MHz	10 MHz	15 MHz	20 MHz	
2A-29A-30A-66A	(0)	Band 2 Band 29 Band 30			Yes	Yes	Yes	Yes	60
2A-29A-66A-66A	(0)	Band 2 Band 29 Band 66			Yes	Yes	Yes	Yes	70
2A-30A-66A-66A	(0)	Band 2 Band 30 Band 66			Yes	Yes	Yes	Yes	70
2A-48A-48A-66A	(0)	Band 2 Band 48 Band 66			Yes	Yes	Yes	Yes	80
2A-48A-48C	(0)	Band 2 Band 48			48A-48C BCS 0				80
2A-48A-66A-66A	(0)	Band 2 Band 48 Band 66			Yes	Yes	Yes	Yes	80
2A-48C-66A	(0)	Band 2 Band 48 Band 66			Yes	Yes	Yes	Yes	80
2A-48D	(0)	Band 2 Band 48			48D BCS 0				80
2A-66A-66A-71A	(0)	Band 2 Band 66 Band 71			Yes	Yes	Yes	Yes	80
2C-66A-66A	(0)	Band 2 Band 66			2C BCS 0				80
2A-66C-71A	(0)	Band 2 Band 66 Band 71			Yes	Yes	Yes	Yes	80
4A-4A-12B	(0)	Band 4 Band 12			4A-4A BCS 0				55
4A-48D	(0)	Band 4 Band 48			Yes	Yes	Yes	Yes	40
5A-30A-66A-66A	(0)	Band 5 Band 30 Band 66			Yes	Yes			60
5A-48A-66A-66A	(0)	Band 5 Band 48 Band 66			Yes	Yes	Yes	Yes	70
5A-48C-66A	(0)	Band 5 Band 48 Band 66			Yes	Yes			70
5A-48D	(0)	Band 5 Band 48	Yes	Yes	Yes	Yes	Yes	Yes	70
12A-30A-66A-66A	(0)	Band 12 Band 30 Band 66			Yes	Yes			60
12B-66A-66A	(0)	Band 12 Band 66			12B BCS 0				60
13A-48A-66B	(0)	Band 13 Band 48 Band 66			Yes	Yes	Yes	Yes	50
13A-48A-66C	(0)	Band 13 Band 48 Band 66			Yes	Yes	Yes	Yes	70
13A-48C-66A	(0)	Band 13 Band 48 Band 66			48C BCS 0				70

4. DL Inter Band(5CC)

E-UTRA CA configuration	Bandwidth Combination Set	E-UTRA Band	Bandwidth						Max Aggregated BW
			1.4 MHz	3 MHz	5 MHz	10 MHz	15 MHz	20 MHz	
2A-2A-5A-30A-66A	(0)	Band 2 Band 5 Band 30			2A-2A BCS 0				80
2A-2A-5A-66A-66A	(0)	Band 2 Band 5 Band 66			Yes	Yes			90
2A-2A-5A-66B	(0)	Band 2 Band 5 Band 66			66A-66A BCS 0				70
2A-2A-5A-66C	(0)	Band 2 Band 5 Band 66			2A-2A BCS 0				90
2A-2A-12A-30A-66A	(0)	Band 2 Band 5 Band 30 Band 66			Yes	Yes			80
2A-2A-12A-66A-66A	(0)	Band 2 Band 12 Band 66			2A-2A BCS 0				90
2A-2A-12B-66A	(0)	Band 2 Band 5 Band 66 Band 2			2A-2A BCS 0				75
2A-2A-13A-66A-66A	(0)	Band 2 Band 13 Band 66			66A-66A BCS 0				90
2A-2A-14A-30A-66A	(0)	Band 2 Band 14 Band 30 Band 66			Yes	Yes			80
2A-2A-14A-66A-66A	(0)	Band 2 Band 14 Band 66			2A-2A BCS 0				90
2A-2A-29A-30A-66A	(0)	Band 2 Band 29 Band 30 Band 66			Yes	Yes			80
2A-2A-29A-66A-66A	(0)	Band 2 Band 14 Band 66			66A-66A BCS 0				90
2A-5A-30A-66A-66A	(0)	Band 2 Band 5 Band 30 Band 66			Yes	Yes	Yes	Yes	80
2A-5A-48A-66A-66A	(0)	Band 2 Band 5 Band 48 Band 66			Yes	Yes	Yes	Yes	90
2A-5A-48C-66A	(0)	Band 2 Band 5 Band 48 Band 66			66A-66A BCS 0				90
2A-12A-30A-66A-66A	(0)	Band 2 Band 12 Band 30 Band 66			Yes	Yes			80

LTE Downlink Carrier Aggregation configurations (Continued)

3. DL Inter Band(4CC)

E-UTRA CA configuration	Bandwidth Combination Set	E-UTRA Band	Bandwidth						Max Aggregated BW
			1.4 MHz	3 MHz	5 MHz	10 MHz	15 MHz	20 MHz	
13A-48D	(0)	Band 13			Yes	Yes			70
		Band 48	48D BCS 0						
14A-30A-66A-66A	(0)	Band 14			Yes	Yes			60
		Band 30	66A-66A BCS 0						
25A-41D	(0)	Band 25			Yes	Yes	Yes	Yes	80
		Band 41	41D BCS 0						
29A-30A-66A-66A	(0)	Band 29			Yes	Yes			60
		Band 30	66A-66A BCS 0						
48A-48A-66A-66A	(0)	Band 48			Yes	Yes			80
		Band 66	66A-66A BCS 0						
48A-48C-66A	(0)	Band 48			Yes	Yes	Yes	Yes	80
		Band 66	66A-66A BCS 0						
48C-66A-66A	(0)	Band 48			Yes	Yes			80
		Band 66	66A-66A BCS 0						
48C-66B	(0)	Band 48			Yes	Yes			60
		Band 66	66B BCS 0						
48C-66C	(0)	Band 48			Yes	Yes			60
		Band 66	66C BCS 0						

4. DL Inter Band(5CC)

E-UTRA CA configuration	Bandwidth Combination Set	E-UTRA Band	Bandwidth						Max Aggregated BW
			1.4 MHz	3 MHz	5 MHz	10 MHz	15 MHz	20 MHz	
2A-12B-66A-66A	(0)	Band 2			Yes	Yes	Yes	Yes	75
		Band 12	12B BCS 0						
2A-13A-48C-66A	(0)	Band 66	66A-66A BCS 0						90
		Band 2			Yes	Yes	Yes	Yes	
2A-13A-48D	(0)	Band 13			Yes	Yes			90
		Band 48	48C BCS 0						
2A-13A-48D	(0)	Band 66			Yes	Yes	Yes	Yes	90
		Band 2			Yes	Yes	Yes	Yes	
2A-14A-30A-66A-66A	(0)	Band 13			Yes	Yes			80
		Band 48	48D BCS 0						
2A-14A-30A-66A-66A	(0)	Band 14			Yes	Yes			80
		Band 30	66A-66A BCS 0						
2A-48A-48C-66A	(0)	Band 66			Yes	Yes	Yes	Yes	100
		Band 2			Yes	Yes	Yes	Yes	
2A-48C-48C	(0)	Band 48			Yes	Yes	Yes	Yes	100
		Band 2			Yes	Yes	Yes	Yes	
2A-48C-66A-66A	(0)	Band 2	Yes	Yes	Yes	Yes	Yes	Yes	100
		Band 48	48C BCS 0						
2A-48D-66A	(0)	Band 66			Yes	Yes	Yes	Yes	100
		Band 2			Yes	Yes	Yes	Yes	
2A-48E	(0)	Band 48			Yes	Yes	Yes	Yes	100
		Band 2			Yes	Yes	Yes	Yes	
4A-48E	(0)	Band 48			Yes	Yes			100
		Band 2			Yes	Yes			
5A-48C-66A-66A	(0)	Band 48			Yes	Yes			90
		Band 66	66A-66A BCS 0						
5A-48D-66A	(0)	Band 5			Yes	Yes			90
		Band 48	48D BCS 0						
13A-48D-66A	(0)	Band 66	Yes	Yes	Yes	Yes	Yes	Yes	90
		Band 13			Yes	Yes			
13A-48E	(0)	Band 48			Yes	Yes	Yes	Yes	90
		Band 13			Yes	Yes			
48C-48C-66A	(0)	Band 48			Yes	Yes	Yes	Yes	100
		Band 66	66A-66A BCS 0						
48A-48D-66A	(0)	Band 48			Yes	Yes	Yes	Yes	100
		Band 66	66A-66A BCS 0						

5. DL Inter Band(6CC)

E-UTRA CA configuration	Bandwidth Combination Set	E-UTRA Band	Bandwidth						Max Aggregated BW
			1.4 MHz	3 MHz	5 MHz	10 MHz	15 MHz	20 MHz	
2A-5A-48C-66A-66A	(0)	Band 2	Yes	Yes	Yes	Yes	Yes	Yes	110
		Band 5			Yes	Yes			
2A-48E-66A-66A	(0)	Band 48	48C BCS 0						140
		Band 66	66A-66A BCS 0						
2A-48E-66A-66A	(0)	Band 2	Yes	Yes	Yes	Yes	Yes	Yes	140
		Band 48	48E BCS 0						
5A-48D-66A-66A	(0)	Band 66	66A-66A BCS 0						110
		Band 5			Yes	Yes			
5A-48D-66A-66A	(0)	Band 48	48D BCS 0						110
		Band 66	66A-66A BCS 0						

LTE Uplink / Downlink Carrier Aggregation Intra-band configurations

6. DL Intra Band(non-contiguous)

E-UTRA CA configuration	Bandwidth Combination Set	E-UTRA Band	Allowed Channel BW Per Carrier (MHz)				Max Aggregated BW
			1st Carrier	2nd Carrier	3rd Carrier	4th Carrier	
2A-2A	(0)	Band 2	5, 10, 15, 20	5, 10, 15, 20			40
4A-4A	(0)	Band 4	5, 10, 15, 20	5, 10, 15, 20			40
	(1)	Band 4	5, 10	5, 10			20
25A-25A	(0)	Band 25	5, 10	5, 10			20
	(1)	Band 25	5, 10, 15, 20	5, 10, 15, 20			40
41A-41A	(0)	Band 41	10, 15, 20	10, 15, 20			40
	(1)	Band 41	5, 10, 15, 20	5, 10, 15, 20			40
41A-41C	(0)	Band 41	5, 10, 15, 20	41C BCS 1			60
			41C BCS 1	5, 10, 15, 20			
48A-48A	(0)	Band 48	5, 10, 15, 20	5, 10, 15, 20			40
48A-48C	(0)	Band 48	5, 10, 15, 20	48C BCS 0			60
			48C BCS 0	5, 10, 15, 20			
48A-48D	(0)	Band 48	5, 10, 15, 20	48D BCS 0			80
			48D BCS 0	5, 10, 15, 20			
48C-48C	(0)	Band 48	48C BCS 0	48C BCS 0			80
48A-48E	(0)	Band 48	5, 10, 15, 20	48E BCS 0			100
			48E BCS 0	5, 10, 15, 20			
48C-48D	(0)	Band 48	48C BCS 0	48D BCS 0			100
			48D BCS 0	48C BCS 0			
66A-66A	(0)	Band 66	5, 10, 15, 20	5, 10, 15, 20			40

7. DL Intra Band(contiguous)

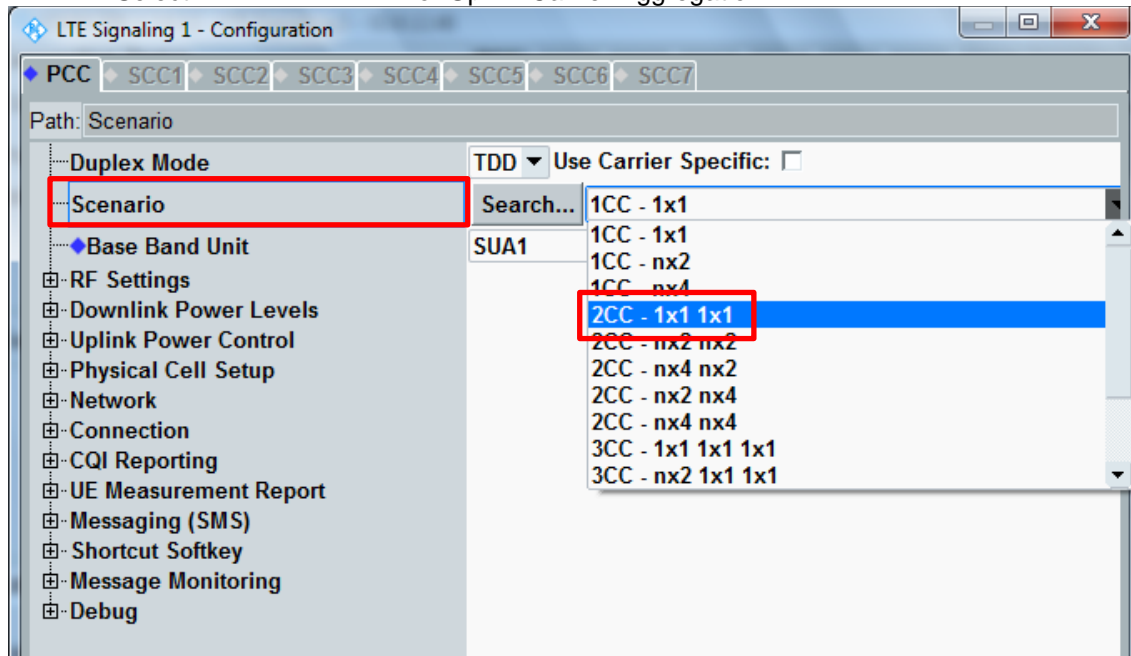
E-UTRA CA configuration	Bandwidth Combination Set	E-UTRA Band	Allowed Channel BW Per Carrier (MHz)					Max Aggregated BW
			1st Carrier	2nd Carrier	3rd Carrier	4th Carrier	5th Carrier	
2C	(0)	Band 2	5	20				40
			10	15,20				
			15	10,15,20				
			20	5,10,15,20				
5B	(0)	Band 5	5, 10	10			20	
			10	5				
	(1)	Band 5	3	5			8	
12B	(0)	Band 12	5, 10	5			15	
			10	20				
41C	(0)	Band 41	10	20			40	
			15	15, 20				
			20	10, 15, 20				
	(1)	Band 41	5, 10	20			40	
			15	15, 20				
			20	5, 10, 15, 20				
	(2)	Band 41	10	15, 20			40	
			15	10, 15, 20				
			20	10, 15, 20				
	(3)	Band 41	10	20			40	
			20	20				
			20	20				
41D	(0)	Band 41	10	20	15		60	
			10	15, 20	20			
			15	20	10, 15			
			15	10, 15, 20	20			
			20	15, 20	10			
			20	10, 15, 20	15, 20			
48B	(0)	Band 48	10	10			20	
48C	(0)	Band 48	5, 10, 15, 20	20			40	
			20	5, 10, 15				
48D	(0)	Band 48	5, 10, 15, 20	20	20		60	
			20	20	5,10,15			
48E	(0)	Band 48	5, 10, 15, 20	20	20		80	
			20	20	20	5, 10, 15		
66B	(0)	Band 66	5	5, 10, 15			20	
			10	5, 10				
			15	5				
66C	(0)	Band 66	5	20			40	
			10	15,20				
			15	10,15,20				
			20	5,10,15,20				

Note:

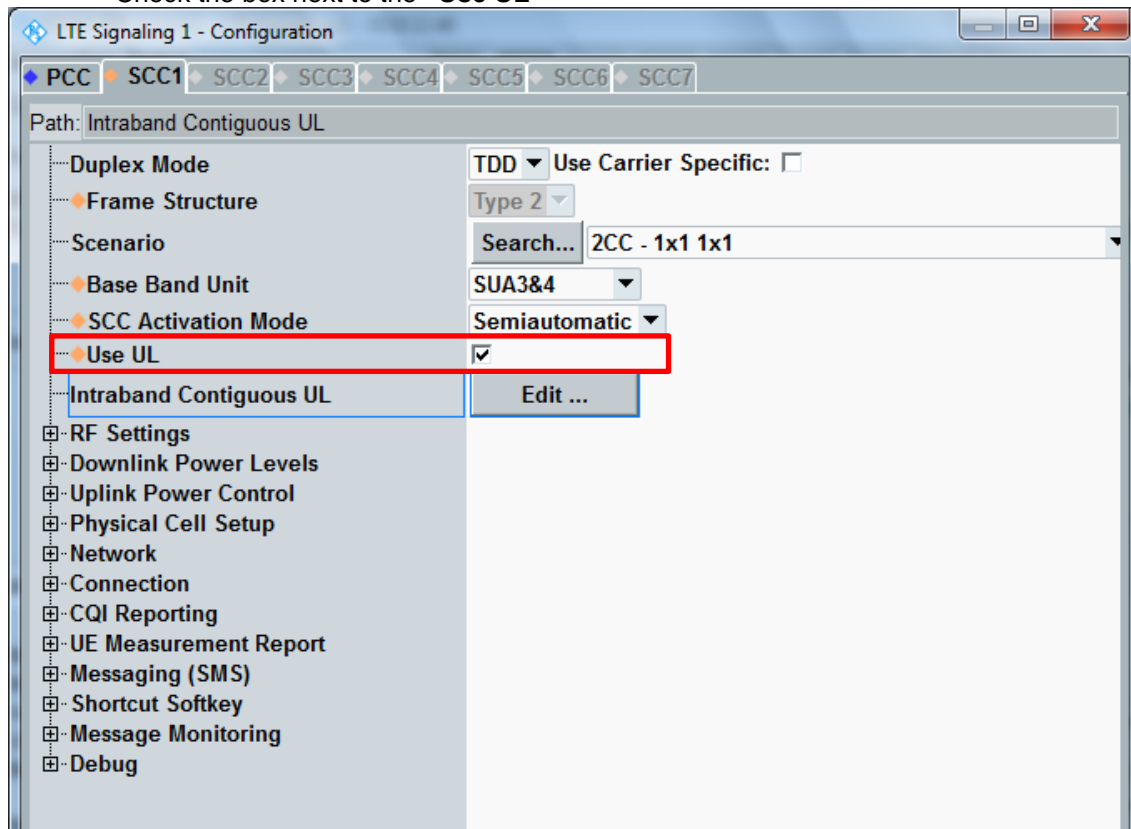
LTE CA_5B, 41C, 48C, 66B, 66C are supported in both Uplink and Downlink, other CA configurations are supported only Downlink

LTE Uplink Carrier Aggregation – Output Power measurement procedures

- Change the Scenario in the Configuration of LTE Signaling
Select **“2CC – 1x1 1x1”** for Uplink Carrier Aggregation



- Check the box next to the **“Use UL”**



- Back to the LTE Signal screen, and then select the PCC tab, Set operating band, BW, channel and RB configurations for PCC

The screenshot shows the LTE Signal configuration interface with the PCC tab selected. The configuration details are as follows:

Parameter	Downlink	Uplink
Operating Band	Band 41	TDD
Channel	40620 Ch	40620 Ch
Frequency	2593.0 MHz	2593.0 MHz
Cell Bandwidth	20.0 MHz	20.0 MHz
RS EPRE	-85.0 dBm/15kHz	
Full Cell BW Pow.	-54.2 dBm	
PUSCH Open Loop Nom.Power	23 dBm	
PUSCH Closed Loop Target Power	24.0 dBm	
Sched.	User def. Channels	
# RB	100	1
Start RB	0	99
Mod / TBSI	QPSK 5	QPSK 10
Code Rate / TBS	0.328 8760	0.583 144
Throughput	3.478 Mbit/s	0.057 Mbit/s

Additional interface elements include: Connection Status (Cell, Packet Switched ON, RRC State Idle, SCC1 State OFF), Event Log, UE Info, and a right-hand navigation menu with options like LTE 1 TX Meas., LTE 1 RX Meas., Go to..., Routing, LTE Signaling ON, and Config ...

- Select the SCC1 tab, Set operating band, BW, channel, and RB configurations for SCC1

The screenshot shows the LTE Signal configuration interface with the SCC1 tab selected. The configuration details are as follows:

Parameter	Downlink	Uplink
Operating Band	Band 41	TDD
Channel	40818 Ch	40818 Ch
Frequency	2612.8 MHz	2612.8 MHz
Cell Bandwidth	20.0 MHz	20.0 MHz
RS EPRE	-85.0 dBm/15kHz	
Full Cell BW Pow.	-54.2 dBm	
PUSCH Open Loop Nom.Power	23 dBm	
PUSCH Closed Loop Target Power	24.0 dBm	
Sched.	User def. Channels	
# RB	100	1
Start RB	0	0
Mod / TBSI	QPSK 5	QPSK 10
Code Rate / TBS	0.328 8760	0.583 144
Throughput	3.478 Mbit/s	0.057 Mbit/s

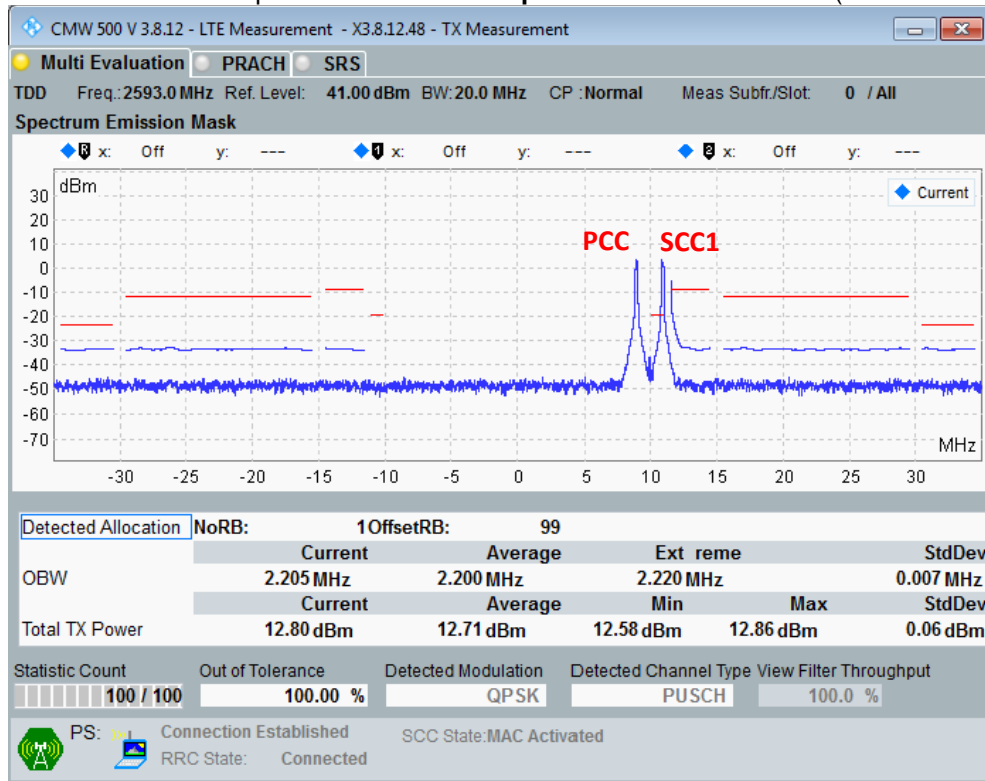
Additional interface elements include: Connection Status (Cell, Packet Switched ON, RRC State Idle, SCC1 State OFF), Event Log, UE Info, and a right-hand navigation menu. A 'Swap' button is visible between PCC and SCC1, and a 'Copy' button is shown for PCC to SCC1.

- Click the **“Connect”** button at the bottom of the screen, if necessary, turn the Airplane mode on/off in the DUT

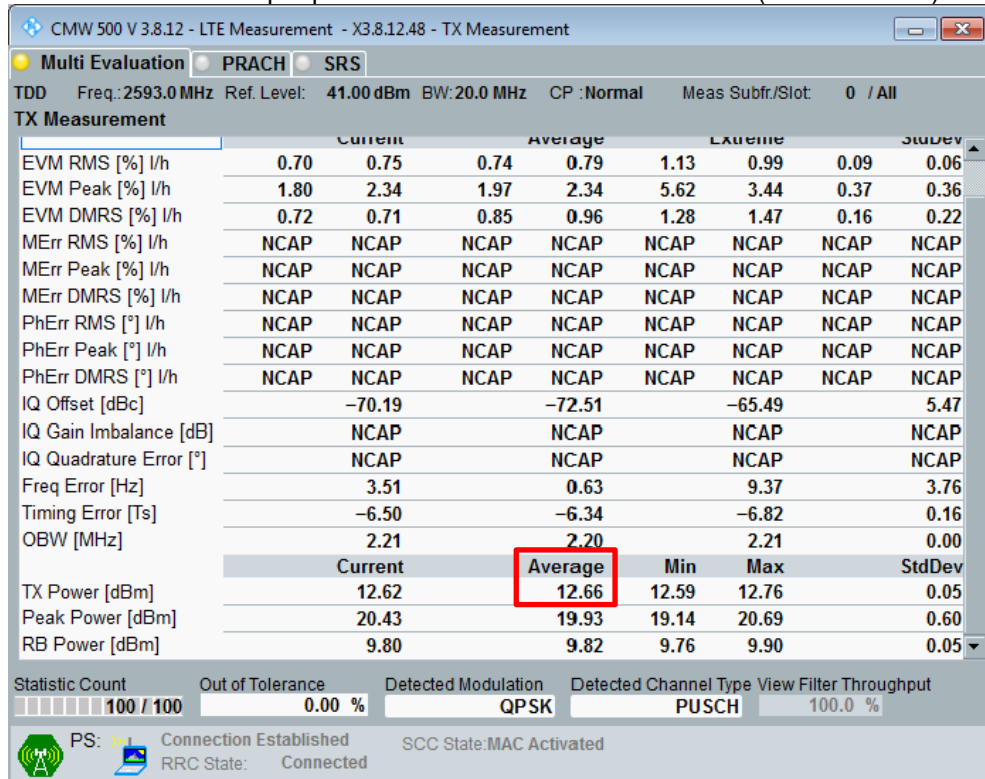
The screenshot displays the CMW 500 V 3.8.12 - LTE Signaling 1 - X3.8.12.48 interface. The main window is titled "LTE" and shows the connection status for SCC1. The "Connection Status" section indicates that the connection is established, with RRC State "Connected" and SCC1 State "MAC Activated". The "Event Log" shows a series of events from 06:16:44 to 06:16:30, including "State 'Connection Established'", "EPS Dedicated Bearer Established", "SCC1: MAC Activated", "SCC1: RRC Added", "SCC1: On", and "SCC1: Off". The "UE Info" section displays the IMEI (355346630026654), IMSI (001010123456063), and other details. The "Configuration" section shows the operating band as Band 41, with downlink and uplink channels at 40818 Ch and 2612.8 MHz. The "Throughput" section shows a downlink rate of 3.478 Mbit/s and an uplink rate of 0.057 Mbit/s. The "LTE Signaling" section is set to "ON". At the bottom, the "Disconnect" button is highlighted with a red box.

Connection Status	Operating Band	Downlink	Uplink
Cell:	Band 41	40818 Ch	40818 Ch
Packet Switch: Connection Established	Frequency	2612.8 MHz	2612.8 MHz
RRC State: Connected	Cell Bandwidth	20.0 MHz	20.0 MHz
SCC1 State: MAC Activated	RS EPRE	-85.0 dBm/15kHz	
Event Log	Full Cell BW Pow.	-54.2 dBm	
06:16:44 State 'Connection Established'	PUSCH Open Loop Nom.Power		23 dBm
06:16:44 EPS Dedicated Bearer Established	PUSCH Closed Loop Target Power		24.0 dBm
06:16:43 SCC1: MAC Activated	PCC <-> SCC1	Swap	
06:16:41 SCC1: RRC Added	PCC -> SCC1	Copy	
06:16:41 SCC1: On	Sched. User def. Channels		Multicenter UL
06:16:30 SCC1: Off	64/256-QAM		
UE Info	# RB	100	1
IMEI: 355346630026654	Start RB	0	0
IMSI: 001010123456063	Mod / TBSI	QPSK 5	QPSK 10
Voice Domain: IMS PS Voice preferred CS	Code Rate / TBS	0.328 8760	0.583 144
UE's Usage S...: Data centric	Throughput	3.478 Mbit/s	0.057 Mbit/s
Default Bearer: IPv4 address IPv6 prefix			
5 (cmw50...): 192.168.48.129			
Dedicated Be...: TFT Port Range DL / UL			
6 (->5, Def...): 5005 - 5008 / 5005 - 5008			
Buttons: Detach, Disconnect, SCC1 Off, Send SMS, Inter/Intra-RAT ..., Config ...			

- Check the spectrum of UL CA in **Spectrum Emission Mask** (LTE Tx Meas.)

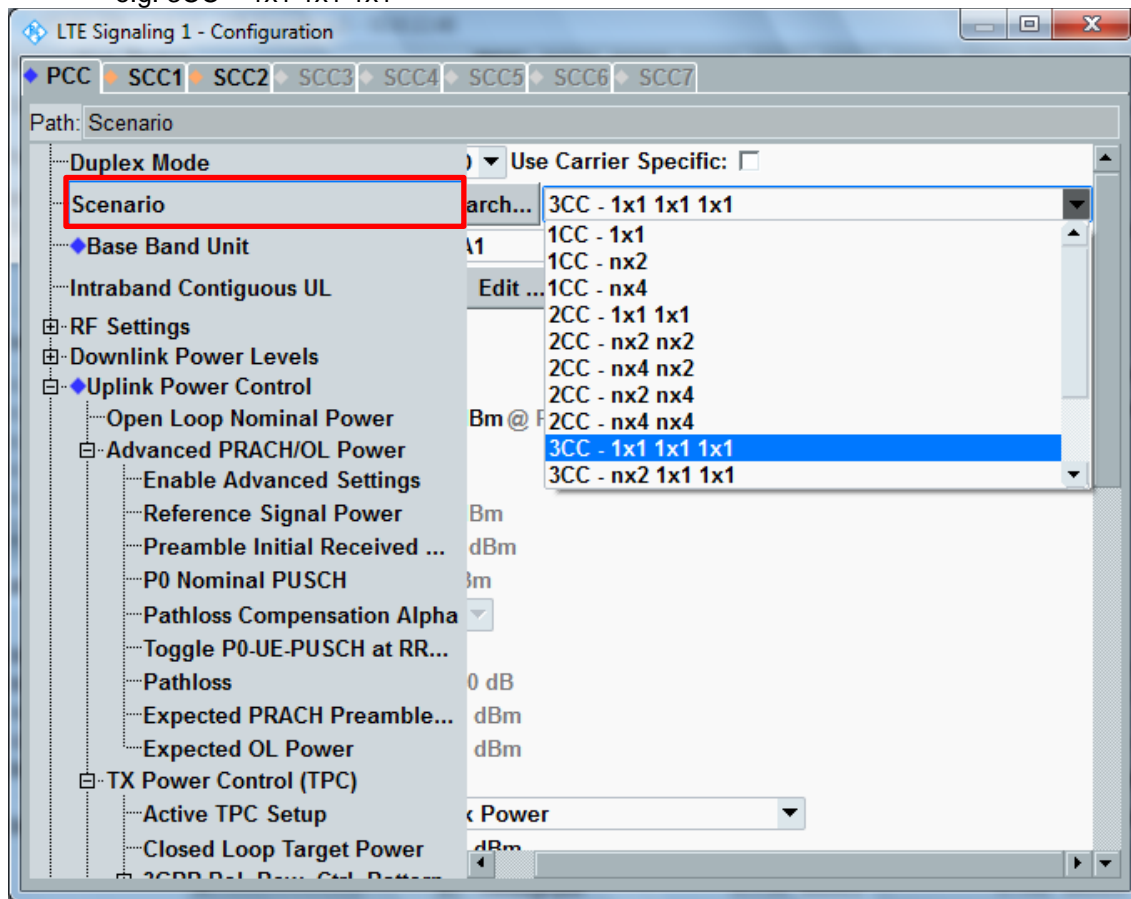


- Read the output power of UL CA in **TX Measurement** (LTE Tx Meas.)

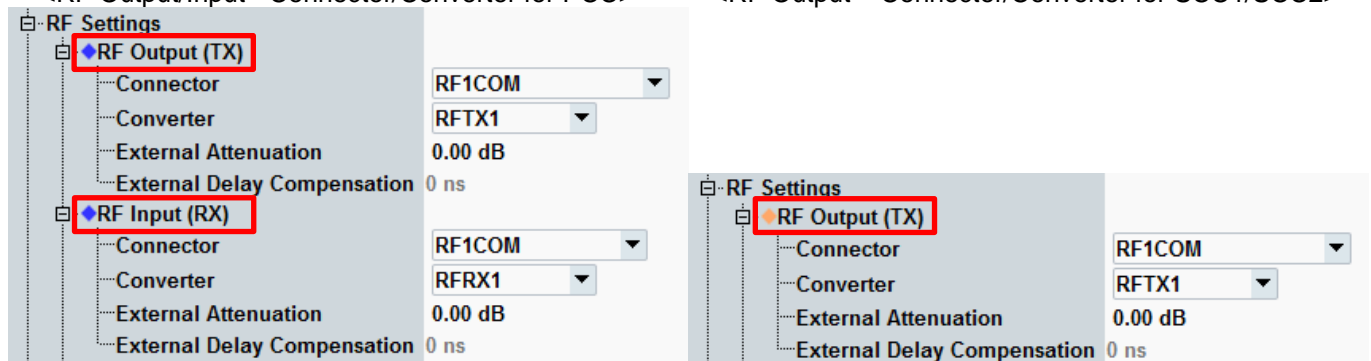


LTE Downlink Carrier Aggregation - Output Power measurement procedures

- Change the Scenario in the Configuration of LTE Signaling
e.g. 3CC – 1x1 1x1 1x1



- Set the RF Output/Input Connector and Converter for PCC/SCC1/SCC2 in each tab.
<RF Output/Input - Connector/Converter for PCC> <RF Output – Connector/Converter for SCC1/SCC2>



- Back to the LTE Signal screen, and then select the PCC tab, Set operating band, BW, channel and RB configurations for PCC

CMW 500 V 3.8.12 - LTE Signaling 1 - X3.8.12.48

Connection Status

Cell: Connection Established

Packet Switched: Connection Established

RRC State: Connected

SCC1 State: OFF

SCC2 State: OFF

Event Log

06:36:17 SCC2: Off

06:36:17 SCC2: On

06:36:17 SCC2: RRC Added

06:36:16 SCC1: Off

06:36:16 SCC1: On

06:36:16 SCC1: RRC Added

06:36:12 SCC2: MAC Activated

UE Info

IMEI: 355346630026654

IMSI: 001010123456063

Voice Domain Pr...: IMS PS Voice preferred CS Voi

UE's Usage Setti...: Data centric

Default Bearer: IPv4 address IPv6 prefix

5 (cmw500.r...): 192.168.48.129

Dedicated Bearer: TFT Port Range DL / UL

6 (->5, Default): 5005 - 5008 / 5005 - 5008

Configuration for SCC1:

Operating Band: Band 66 (FDD)

Parameter	Downlink	Uplink
Channel	67036 Ch	132572 Ch
Frequency	2170.0 MHz	1770.0 MHz
Cell Bandwidth	20.0 MHz	20.0 MHz
RS EPRE	-85.0 dBm/15kHz	
Full Cell BW Pow.	-54.2 dBm	
PUSCH Open Loop Nom.Power	23 dBm	
PUSCH Closed Loop Target Power	24.0 dBm	

Sched: User def. Channels

Parameter	Downlink	Uplink
# RB	100	1
Start RB	0	0
Mod / TBSI	QPSK 5	QPSK 10
Code Rate / TBS	0.330 8760	0.583 144
Throughput	8.734 Mbit/s	0.144 Mbit/s

64/256-QAM Multicluster

Downlink Multicluster Uplink Multicluster

LTE Signaling ON

Bottom Toolbar: Detach, Disconnect, SCC1 activate MAC, Multiple SCC Actions, Send SMS, Inter/Intra-RAT ..., Config ...

- Select the SCC1/SCC2 tab, set operating band, BW, channel and RB configurations for SCC1/SCC2

CMW 500 V 3.8.12 - LTE Signaling 1 - X3.8.12.48

Connection Status

Cell: Connection Established

RRC State: Connected
 SCC1 State: OFF
 SCC2 State: OFF

Event Log

- 06:36:17 SCC2: Off
- 06:36:17 SCC2: On
- 06:36:17 SCC2: RRC Added
- 06:36:16 SCC1: Off
- 06:36:16 SCC1: On
- 06:36:16 SCC1: RRC Added
- 06:36:12 SCC2: MAC Activated

UE Info

IMEI: 355346630026654
 IMSI: 001010123456063
 Voice Domain: IMS PS Voice preferred CS
 UE's Usage S...: Data centric
 Default Bearer: IPv4 address IPv6 prefix
 ...5 (cmw50...): 192.168.48.129
 Dedicated Be...: TFT Port Range DL / UL
 ...6 (->5, Def...): 5005 - 5008 / 5005 - 5008

Configuration (SCC1):

- Operating Band: Co-location active with PCC (FDD)
- Channel: 66536 Ch
- Frequency: 2120.0 MHz
- Cell Bandwidth: 20.0 MHz
- RS EPRE: -85.0 dBm/15kHz
- Full Cell BW Pow.: -54.2 dBm
- PCC <-> SCC1: Swap
- PCC -> SCC1: Copy
- Sched.: User def. Channels
- # RB: 100
- Start RB: 0
- Mod / TBSI: QPSK / 5
- Code Rate / TBS: 0.330 / 8760
- Throughput: 8.734 Mbit/s
- Multicenter:

Buttons: Detach, Disconnect, SCC1 activate MAC, Multiple SCC Actions, Send SMS, Inter/Intra-RAT ..., Config ...

LTE Signaling: ON

CMW 500 V 3.8.12 - LTE Signaling 1 - X3.8.12.48

Connection Status

Cell: Connection Established

RRC State: Connected
 SCC1 State: OFF
 SCC2 State: OFF

Event Log

- 06:36:17 SCC2: Off
- 06:36:17 SCC2: On
- 06:36:17 SCC2: RRC Added
- 06:36:16 SCC1: Off
- 06:36:16 SCC1: On
- 06:36:16 SCC1: RRC Added
- 06:36:12 SCC2: MAC Activated

UE Info

IMEI: 355346630026654
 IMSI: 001010123456063
 Voice Domain: IMS PS Voice preferred CS
 UE's Usage S...: Data centric
 Default Bearer: IPv4 address IPv6 prefix
 ...5 (cmw50...): 192.168.48.129
 Dedicated Be...: TFT Port Range DL / UL
 ...6 (->5, Def...): 5005 - 5008 / 5005 - 5008

Configuration (SCC2):

- Operating Band: Band 71 (FDD)
- Channel: 68761 Ch
- Frequency: 634.5 MHz
- Cell Bandwidth: 20.0 MHz
- RS EPRE: -85.0 dBm/15kHz
- Full Cell BW Pow.: -54.2 dBm
- PCC <-> SCC2: Swap
- PCC -> SCC2: Copy
- Sched.: User def. Channels
- # RB: 100
- Start RB: 0
- Mod / TBSI: QPSK / 5
- Code Rate / TBS: 0.330 / 8760
- Throughput: 8.734 Mbit/s
- Multicenter:

Buttons: Detach, Disconnect, SCC2 activate MAC, Multiple SCC Actions, Send SMS, Inter/Intra-RAT ..., Config ...

LTE Signaling: ON

- Connect and Activate MAC for all SCCs

Multiple SCC Actions

SCC	State	Action
SCC1	OFF	activate MAC
SCC2	OFF	activate MAC

Multiple SCC Actions

- Read the output power of DL CA in TX Measurement (LTE Tx Meas.)

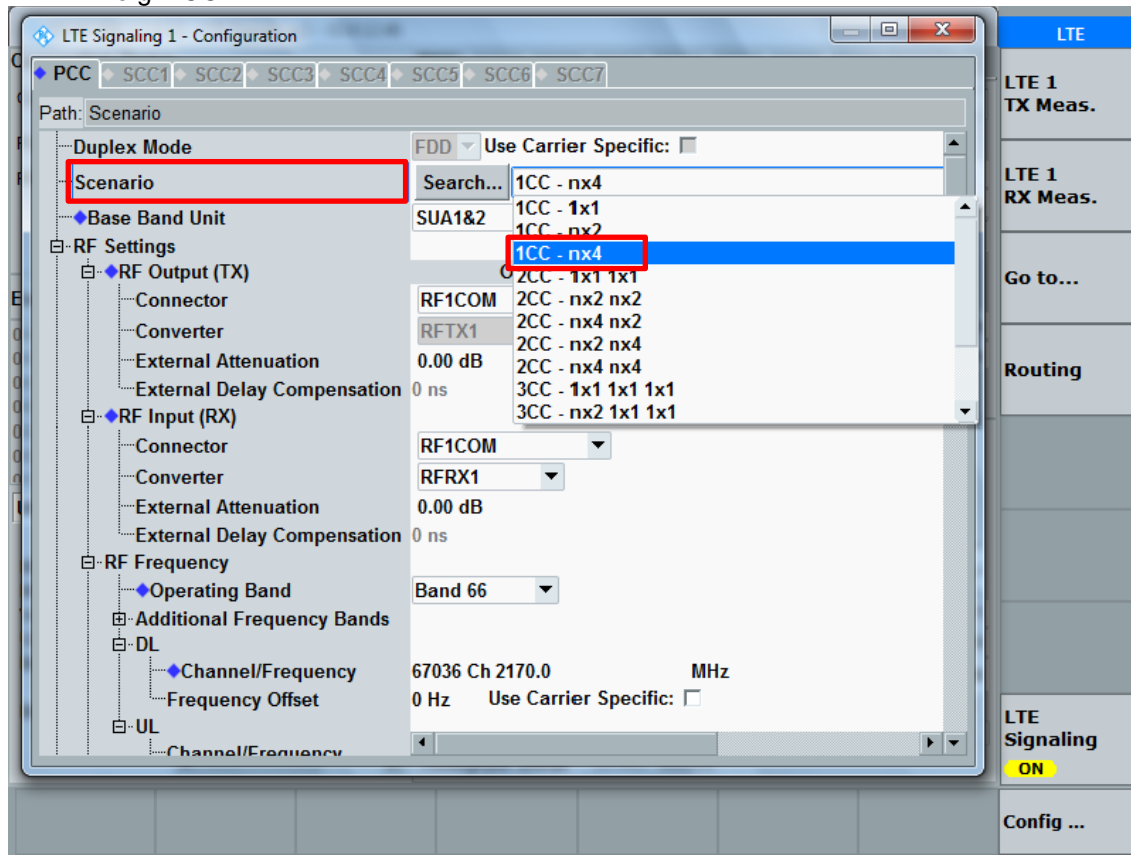
TX Measurement

	Current	Average	Extreme	StdDev
EVM RMS [%] I/h	0.64	0.71	0.68	0.71
EVM Peak [%] I/h	1.51	2.64	1.96	2.23
EVM DMRS [%] I/h	0.61	0.65	0.61	0.60
MErr RMS [%] I/h	NCAP	NCAP	NCAP	NCAP
MErr Peak [%] I/h	NCAP	NCAP	NCAP	NCAP
MErr DMRS [%] I/h	NCAP	NCAP	NCAP	NCAP
PhErr RMS [°] I/h	NCAP	NCAP	NCAP	NCAP
PhErr Peak [°] I/h	NCAP	NCAP	NCAP	NCAP
PhErr DMRS [°] I/h	NCAP	NCAP	NCAP	NCAP
IQ Offset [dBc]	-52.22	-52.32	-49.92	0.85
IQ Gain Imbalance [dB]	NCAP	NCAP	NCAP	NCAP
IQ Quadrature Error [°]	NCAP	NCAP	NCAP	NCAP
Freq Error [Hz]	0.51	0.09	-5.38	1.33
Timing Error [Ts]	-6.30	-5.63	-8.52	2.54
OBW [MHz]	0.27	0.27	0.32	0.02
	Current	Average	Min	Max
TX Power [dBm]	13.51	13.48	13.30	13.59
Peak Power [dBm]	18.40	18.60	17.80	19.50
RB Power [dBm]	13.48	13.46	13.37	13.50

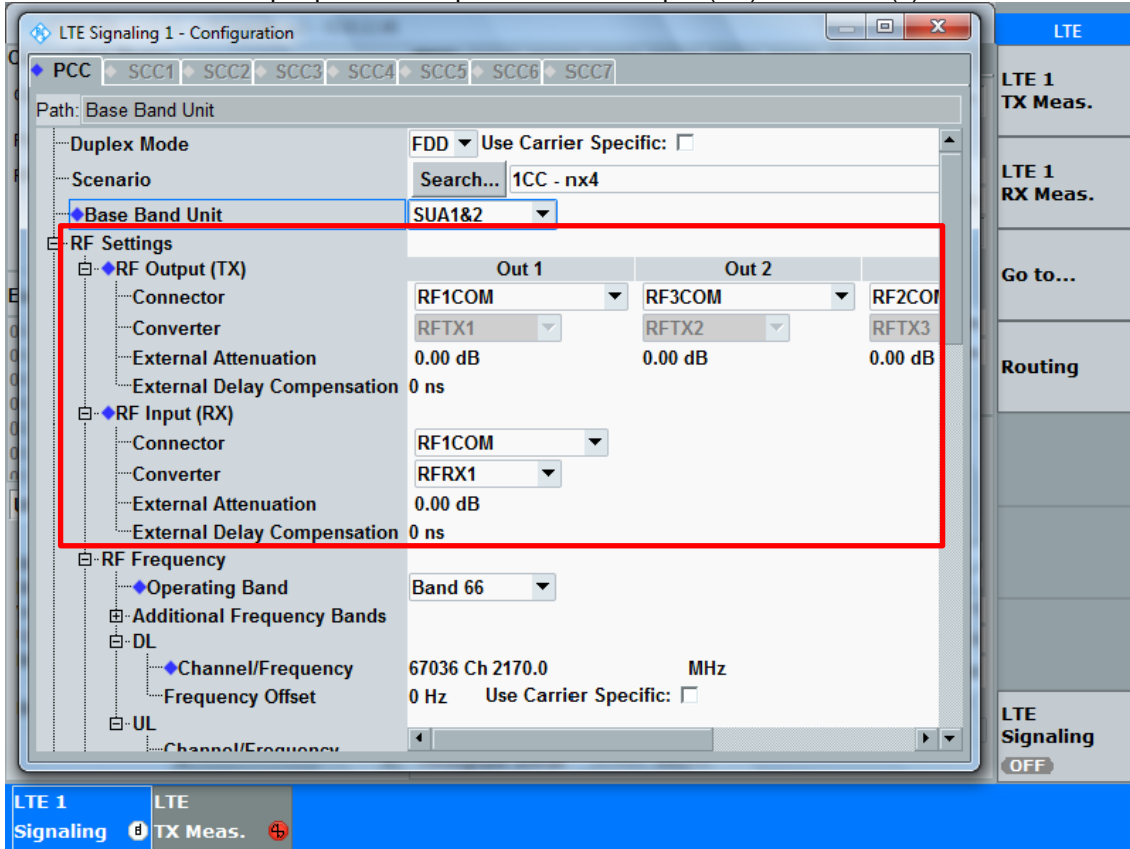
Statistic Count: 100 / 100
Out of Tolerance: 0.00 %
Detected Modulation: QPSK
Detected Channel Type: PUSCH
View Filter Throughput: 100.0 %

LTE Downlink 4x4 MIMO - Output Power measurement procedures

- Change the Scenario in the Configuration of LTE Signaling
e.g. 1CC – nx4



- Set the RF Output/Input Connector and Converter for PCC.
DL MIMO output ports correspond with RF Output (TX) Connector(s).



- Back to the LTE Signal screen, set operating band, BW, channel and RB configurations for PCC

- Check the Throughput of DL 4x4 MIMO in LTE Rx Measurement.

	Over All		Stream 1		Stream 2	
	Relative	Absolute	Relative	Absolute	Relative	Absolute
ACK	99.99%	19598	99.99%	9799	99.99%	9799
NACK	0.01%	2	0.01%	1	0.01%	1
DTX	0.00%	0	0.00%	0	0.00%	0
BLER	0.01%		0.01%		0.01%	
Throughput	Relative	Mbit/s	Relative	Mbit/s	Relative	Mbit/s
Average	99.99%	17.47	99.99%	8.73	99.99%	8.73
Minimum		17.38				
Maximum		17.47				

- Read the output power of DL CA in TX Measurement (LTE Tx Meas.)

	Current	Average	Extreme	StdDev
EVM RMS [%] I/h	0.64	0.71	0.83	0.04
EVM Peak [%] I/h	1.51	2.23	3.27	0.38
EVM DMRS [%] I/h	0.61	0.60	1.02	0.10
MErr RMS [%] I/h	NCAP	NCAP	NCAP	NCAP
MErr Peak [%] I/h	NCAP	NCAP	NCAP	NCAP
MErr DMRS [%] I/h	NCAP	NCAP	NCAP	NCAP
PhErr RMS [°] I/h	NCAP	NCAP	NCAP	NCAP
PhErr Peak [°] I/h	NCAP	NCAP	NCAP	NCAP
PhErr DMRS [°] I/h	NCAP	NCAP	NCAP	NCAP
IQ Offset [dBc]	-52.22	-52.32	-49.92	0.85
IQ Gain Imbalance [dB]	NCAP	NCAP	NCAP	NCAP
IQ Quadrature Error [°]	NCAP	NCAP	NCAP	NCAP
Freq Error [Hz]	0.51	0.09	-5.38	1.33
Timing Error [Ts]	-6.30	-5.63	-8.52	2.54
OBW [MHz]	0.27	0.27	0.32	0.02
	Current	Average	Min	Max
TX Power [dBm]	13.51	13.48	13.30	13.59
Peak Power [dBm]	18.40	18.60	17.80	19.50
RB Power [dBm]	13.48	13.46	13.37	13.50

LTE Uplink Carrier Aggregation Combinations

Maximum Output Power (Tune-up Limit) for LTE UL Carrier Aggregation

UL CA shall be tested based on the worst-case SAR configuration determined from non-CA SAR testing result. The channel BW, channel number, RB Allocation, etc. would be selected to allow contiguous CA of PCC and SCC. Uplink output power for UL CA is the total power measured across the PCC and SCC.

UL CA power measurements were performed with QPSK modulation based on the worst-case standalone SAR. The tune-up limits are provided in table below. The UL CA mode power measurements represent the total power across both carriers. Measurements were made for all supported PCC bandwidths using the channel/RB combination resulting in the highest standalone output power at the least MPR (0 dB). SCCs were set to use configurations similar to the PCC to establish conservative or worst case equivalent SAR test conditions (highest maximum power with MPR of 0 dB).

The standalone power measurement is the power for the PCC in the non-CA mode (i.e. single carrier power). In all cases the UL CA power is less than or equal to the standalone power, which is in accordance with the tune-up limits in table below.

According to November 2017 TCB workshop, Uplink CA SAR Test Guidance as follows;

- a) When the maximum output for UL CA is ≤ standalone LTE mode (without CA)
 - PCC is configured according to the highest standalone SAR configuration tested
 - SCC and subsequent CCs are configured according to procedures used for power measurement and parameters (BW, RB etc.) similar to that used for the PCC.
- b) When the Reported SAR for UL CA configuration, described above, is > 1.2 W/kg, UL CA SAR is also required for all required test channels (PCC based).
- c) UL CA SAR is also required for standalone SAR configurations > 1.2 W/kg when they are scaled to the UL CA power level.

SAR measurement is not required for the 16QAM and 64QAM. When the highest maximum output power for 16QAM and 64QAM is ≤ 0.25 dB higher than the QPSK or when the reported SAR for the QPSK configuration is ≤ 1.45 W/kg.

RF Exposure conditions	Antenna	E-UTRA CA configuration (BCS)	Bands		UL													MPR	Standalone LTE Rel.8	PCC + SCC					
			PCC	SCC	PCC						SCC						Aggregated BW			MPR	Tune-Up Limit	CA power (total PCC+SCC)	Delta	3GPP Rel.	
			1st	2nd	Modulation	RB	Offset	BW	Freq	ch	Modulation	RB	Offset	BW	Freq	ch									
Head	Ant.B	CA_41C(0)(1)(2)(3)	41C	41C	QPSK	1	0	20	2593.0	40620	QPSK	1	99	20	2573.2	40422	0	23.11	40	0	23.4	22.51	0.60	16	
Bodyworn & Hotspot	Ant.B	CA_41C(0)(1)(2)(3)	41C	41C	QPSK	50	0	20	2593.0	40620	QPSK	50	50	20	2573.2	40422	0	23.74	40	0	24.0	23.10	0.64	16	
Head	Ant.F	CA_41C(0)(1)(2)(3)	41C	41C	QPSK	1	0	20	2680.0	41490	QPSK	1	99	20	2660.2	41292	0	19.14	40	0	20.0	18.70	-0.21	16	
Bodyworn & Hotspot	Ant.F	CA_41C(0)(1)(2)(3)	41C	41C	QPSK	1	0	20	2680.0	41490	QPSK	1	99	20	2660.2	41292	0	21.70	40	0	22.5	21.20	-0.18	16	
Head	Ant.B	CA_66B(0)	66B	66B	QPSK	1	0	15	1745.0	132322	QPSK	1	24	5	1735.7	132229	0	23.69	20	0	24.5	23.90	-0.21	16	
Bodyworn & Hotspot	Ant.B	CA_66B(0)	66B	66B	QPSK	1	0	15	1745.0	132322	QPSK	1	24	5	1735.7	132229	0	18.90	20	0	20.0	19.03	-0.13	16	
Head	Ant.F	CA_66B(0)	66B	66B	QPSK	1	0	15	1745.0	132322	QPSK	1	24	5	1735.7	132229	0	17.27	20	0	18.5	17.31	0.04	16	
Bodyworn & Hotspot	Ant.F	CA_66B(0)	66B	66B	QPSK	1	0	15	1745.0	132322	QPSK	1	24	5	1735.7	132229	0	20.79	20	0	22.0	21.02	0.23	16	
Head	Ant.B	CA_66C(0)	66C	66C	QPSK	1	0	20	1745.0	132322	QPSK	1	99	20	1725.2	132124	0	23.62	40	0	24.5	24.03	-0.41	16	
Bodyworn & Hotspot	Ant.B	CA_66C(0)	66C	66C	QPSK	1	0	20	1770.0	132572	QPSK	1	99	20	1750.0	132374	0	18.69	40	0	20.0	18.99	-0.30	16	
Head	Ant.F	CA_66C(0)	66C	66C	QPSK	50	50	20	1720.0	132072	QPSK	50	0	20	1739.8	132270	0	17.06	40	0	18.5	17.23	0.17	16	
Bodyworn & Hotspot	Ant.F	CA_66C(0)	66C	66C	QPSK	1	99	20	1745.0	132322	QPSK	1	0	20	1764.8	132520	0	20.63	40	0	22.0	20.77	0.14	16	
Head	Ant.F	CA_48(0)	48C	48C	QPSK	1	0	20	3690.0	56640	QPSK	1	99	20	3670.2	56442	0	18.28	40	0	19.0	18.51	-0.23	16	
Bodyworn & Hotspot	Ant.F	CA_48(0)	48C	48C	QPSK	1	0	20	3690.0	56640	QPSK	1	99	20	3670.2	56442	0	22.71	40	0	23.0	22.59	0.12	16	

Note: Standalone output power values are referenced from Sec.9.3 in the SAR Part.1 Test Report.

LTE Downlink Carrier Aggregation Combinations

The DL CA power measurement conditions for various CC's combinations were determined according LTE DL CA SAR Test Exclusion guidance in TCB workshop note (April 2018). Only yellow highlighted cells need power measurement. The following power measurements were performed with a single carrier uplink; CA for this particular project only supports one (1) uplink and up to four (4) downlinks.

LTE Release 10 Carrier Aggregation

Index	2CC	Restriction	Completely Covered by Measurement Superset	Index	3CC	Restriction	Completely Covered by Measurement Superset	Index	4CC	Restriction	Completely Covered by Measurement Superset
2CC#1	2A-2A		3CC#1	3CC#1	2A-2A-4A		4CC#2	4CC#1	2A-2A-4A-4A		
2CC#2	2A-4A		3CC#1	3CC#2	2A-2A-5A		4CC#2	4CC#2	2A-2A-4A-5A		
2CC#3	2A-5A		3CC#2	3CC#3	2A-2A-12A		4CC#3	4CC#3	2A-2A-4A-12A		
2CC#4	2A-12A		3CC#3	3CC#4	2A-2A-13A		4CC#10	4CC#4	2A-2A-4A-71A		
2CC#5	2A-13A		3CC#4	3CC#5	2A-2A-14A		4CC#11	4CC#5	2A-2A-5A-30A	5CC#1	
2CC#6	2A-14A		3CC#5	3CC#6	2A-2A-29A	B29 SCC only	4CC#13	4CC#6	2A-2A-5A-66A	5CC#1	
2CC#7	2A-29A	B29 SCC only	3CC#6	3CC#7	2A-2A-30A		4CC#15	4CC#7	2A-2A-12A-30A	5CC#5	
2CC#8	2A-30A		3CC#7	3CC#8	2A-2A-66A		4CC#6	4CC#8	2A-2A-12A-66A	5CC#5	
2CC#9	2A-48A	B48 SCC only	3CC#28	3CC#9	2A-2A-71A		4CC#17	4CC#9	2A-2A-12B	5CC#3	
2CC#10	2A-66A		3CC#8	3CC#10	2A-4A-4A		4CC#1	4CC#10	2A-2A-13A-66A	5CC#8	
2CC#11	2A-71A		3CC#9	3CC#11	2A-4A-5A		4CC#2	4CC#11	2A-2A-14A-30A	5CC#9	
2CC#12	2C		3CC#35	3CC#12	2A-4A-12A		4CC#21	4CC#12	2A-2A-14A-66A	5CC#9	
2CC#13	4A-4A		3CC#10	3CC#13	2A-4A-13A			4CC#13	2A-2A-29A-30A	B29 SCC only	5CC#11
2CC#14	4A-5A		3CC#11	3CC#14	2A-4A-71A		4CC#4	4CC#14	2A-2A-29A-66A	B29 SCC only	5CC#11
2CC#15	4A-12A		3CC#12	3CC#15	2A-5A-30A		4CC#5	4CC#15	2A-2A-30A-66A	5CC#9	
2CC#16	4A-13A		3CC#13	3CC#16	2A-5A-48A	B48 SCC only	4CC#24	4CC#16	2A-2A-66A-66A	5CC#10	
2CC#17	4A-48A	B48 SCC only		3CC#17	2A-5A-66A		4CC#6	4CC#17	2A-2A-66A-71A		
2CC#18	4A-71A		3CC#14	3CC#18	2A-12A-30A		4CC#7	4CC#18	2A-2A-66B	5CC#3	
2CC#19	5A-25A			3CC#19	2A-12A-66A		4CC#8	4CC#19	2A-2A-66C	5CC#4	
2CC#20	5A-30A		3CC#15	3CC#20	2A-12B		4CC#9	4CC#20	2A-4A-4A-5A		
2CC#21	5A-41A			3CC#21	2A-13A-48A	B48 SCC only	4CC#33	4CC#21	2A-4A-4A-12A		
2CC#22	5A-48A	B48 SCC only	3CC#16	3CC#22	2A-13A-66A		4CC#10	4CC#22	2A-4A-12B		
2CC#23	5A-66A		3CC#17	3CC#23	2A-14A-30A		4CC#11	4CC#23	2A-5A-30A-66A	5CC#13	
2CC#24	12A-25A			3CC#24	2A-14A-66A		4CC#12	4CC#24	2A-5A-48A-66A	B48 SCC only	5CC#14
2CC#25	12A-30A		3CC#18	3CC#25	2A-29A-30A	B29 SCC only	4CC#13	4CC#25	2A-5A-48C	B48 SCC only	5CC#15
2CC#26	12A-66A		3CC#19	3CC#26	2A-29A-66A	B29 SCC only	4CC#14	4CC#26	2A-5A-66A-66A	5CC#13	
2CC#27	12B		3CC#20	3CC#27	2A-30A-66A		4CC#15	4CC#27	2A-5A-66B	5CC#3	
2CC#28	13A-48A	B48 SCC only	3CC#21	3CC#28	2A-48A-48A	B48 SCC only	4CC#43	4CC#28	2A-5A-66C	5CC#4	
2CC#29	13A-66A		3CC#22	3CC#29	2A-48A-66A	B48 SCC only	4CC#43	4CC#29	2A-12A-30A-66A	5CC#5	
2CC#30	14A-30A		3CC#23	3CC#30	2A-48C	B48 SCC only	4CC#34	4CC#30	2A-12A-66A-66A	5CC#6	
2CC#31	14A-66A		3CC#24	3CC#31	2A-66A-66A		4CC#26	4CC#31	2A-12A-66C		
2CC#32	25A-25A			3CC#32	2A-66A-71A		4CC#17	4CC#32	2A-12B-66A	5CC#7	
2CC#33	25A-41A	B41 SCC only		3CC#33	2A-66B		4CC#18	4CC#33	2A-13A-48A-66A	B48 SCC only	
2CC#34	29A-30A	B29 SCC only	3CC#25	3CC#34	2A-66C		4CC#19	4CC#34	2A-13A-48C	B48 SCC only	5CC#19
2CC#35	29A-66A	B29 SCC only	3CC#26	3CC#35	2C-66A		4CC#49	4CC#35	2A-13A-66A-66A	5CC#8	
2CC#36	30A-66A		3CC#27	3CC#36	4A-4A-5A		4CC#20	4CC#36	2A-13A-66B		
2CC#37	41A-41A			3CC#37	4A-4A-12A		4CC#21	4CC#37	2A-13A-66C		
2CC#38	41C			3CC#38	4A-4A-13A			4CC#38	2A-14A-30A-66A	5CC#21	
2CC#39	48A-48A			3CC#39	4A-4A-71A			4CC#39	2A-14A-66A-66A	5CC#21	
2CC#40	48A-66A	B48 SCC only	3CC#29	3CC#40	4A-12B		4CC#51	4CC#40	2A-29A-30A-66A	B29 SCC only	5CC#11

Note: Only yellow highlight cells need power measurement according to LTE DL CA SAR test Exclusion in TCB workshop (April.2018).

LTE Release 10 Carrier Aggregation (Continued)

Index	2CC	Restriction	Completely Covered by Measurement Superset
2CC#41	48A-71A	B48 SCC only	3CC#67
2CC#42	48B		
2CC#43	48C		3CC#68
2CC#44	66A-66A	5A-48C	3CC#31
2CC#45	66A-71A		3CC#32
2CC#46	66B		3CC#33
2CC#47	66C		3CC#34

Index	3CC	Restriction	Completely Covered by Measurement Superset
3CC#41	4A-48C	B48 SCC only	
3CC#42	5A-30A-66A		4CC#53
3CC#43	5A-48A-66A	B48 SCC only	4CC#54
3CC#44	5A-48C	B48 SCC only	4CC#55
3CC#45	5A-66A-66A		4CC#53
3CC#46	5A-66B		4CC#27
3CC#47	5A-66C		4CC#28
3CC#48	12A-30A-66A		4CC#57
3CC#49	12A-66A-66A		4CC#57
3CC#50	12A-66C		4CC#31
3CC#51	12B-66A		4CC#58
3CC#52	13A-48A-66A	B48 SCC only	4CC#33
3CC#53	13A-48B	B48 SCC only	
3CC#54	13A-48C	B48 SCC only	4CC#61
3CC#55	13A-66A-66A		5CC#8
3CC#56	13A-66B		4CC#59
3CC#57	13A-66C		4CC#59
3CC#58	14A-30A-66A		4CC#63
3CC#59	14A-66A-66A		4CC#63
3CC#60	25A-41C	B41 SCC only	
3CC#61	29A-30A-66A	B29 SCC only	4CC#65
3CC#62	29A-66A-66A	B29 SCC only	4CC#65
3CC#63	30A-66A-66A		4CC#63
3CC#64	41A-41C		
3CC#65	41D		
3CC#66	48A-48A-66A	B48 SCC only	4CC#66
3CC#67	48A-48A-71A	B48 SCC only	
3CC#68	48A-48C		
3CC#69	48A-66A-66A	B48 SCC only	4CC#66
3CC#70	48A-66B	B48 SCC only	4CC#59
3CC#71	48A-66C	B48 SCC only	4CC#60
3CC#72	48B-66A	B48 SCC only	
3CC#73	48C-66A	B48 SCC only	4CC#67
3CC#74	48C-71A	B48 SCC only	
3CC#75	48D		4CC#68
3CC#76	66A-66A-71A		4CC#48
3CC#77	66C-71A		4CC#50

Index	4CC	Restriction	Completely Covered by Measurement Superset
4CC#41	2A-29A-66A-66A	B29 SCC only	5CC#12
4CC#42	2A-30A-66A-66A		5CC#13
4CC#43	2A-48A-48A-66A	B48 SCC only	
4CC#44	2A-48A-48C	B48 SCC only	5CC#22
4CC#45	2A-48A-66A-66A	B48 SCC only	5CC#14
4CC#46	2A-48C-66A	B48 SCC only	5CC#15
4CC#47	2A-48D	B48 SCC only	5CC#25
4CC#48	2A-66A-66A-71A		
4CC#49	2C-66A-66A		
4CC#50	2A-66C-71A		
4CC#51	4A-4A-12B		
4CC#52	4A-48D	B48 SCC only	
4CC#53	5A-30A-66A-66A		5CC#13
4CC#54	5A-48A-66A-66A	B48 SCC only	5CC#14
4CC#55	5A-48C-66A	B48 SCC only	5CC#15
4CC#56	5A-48D	B48 SCC only	5CC#16
4CC#57	12A-30A-66A-66A		5CC#17
4CC#58	12B-66A-66A		5CC#18
4CC#59	13A-48A-66B	B48 SCC only	
4CC#60	13A-48A-66C	B48 SCC only	
4CC#61	13A-48C-66A	B48 SCC only	5CC#19
4CC#62	13A-48D	B48 SCC only	5CC#20
4CC#63	14A-30A-66A-66A		5CC#21
4CC#64	25A-41D	B41 SCC only	
4CC#65	29A-30A-66A-66A	B29 SCC only	
4CC#66	48A-48A-66A-66A	B48 SCC only	
4CC#67	48A-48C-66A	B48 SCC only	5CC#22
4CC#68	48A-48D		
4CC#69	48C-48C		
4CC#70	48C-66A-66A	B48 SCC only	5CC#24
4CC#71	48C-66B	B48 SCC only	
4CC#72	48C-66C	B48 SCC only	
4CC#73	48D-66A	B48 SCC only	5CC#25
4CC#74	48E		5CC#34

Note:

Only yellow highlight cells need power measurement according to LTE DL CA SAR test Exclusion in TCB workshop (April.2018).

LTE Release 10 Carrier Aggregation (Continued)

Index	5CC	Restriction	Completely Covered by Measurement Superset
5CC#1	2A-2A-5A-30A-66A		
5CC#2	2A-2A-5A-66A-66A		
5CC#3	2A-2A-5A-66B		
5CC#4	2A-2A-5A-66C		
5CC#5	2A-2A-12A-30A-66A		
5CC#6	2A-2A-12A-66A-66A		
5CC#7	2A-2A-12B-66A		
5CC#8	2A-2A-13A-66A-66A		
5CC#9	2A-2A-14A-30A-66A		
5CC#10	2A-2A-14A-66A-66A		
5CC#11	2A-2A-29A-30A-66A	B29 SCC only	
5CC#12	2A-2A-29A-66A-66A	B29 SCC only	
5CC#13	2A-5A-30A-66A-66A		
5CC#14	2A-5A-48A-66A-66A	B48 SCC only	
5CC#15	2A-5A-48C-66A	B48 SCC only	6CC#1
5CC#16	2A-5A-48D	B48 SCC only	
5CC#17	2A-12A-30A-66A-66A		
5CC#18	2A-12B-66A-66A		
5CC#19	2A-13A-48C-66A	B48 SCC only	
5CC#20	2A-13A-48D	B48 SCC only	
5CC#21	2A-14A-30A-66A-66A		
5CC#22	2A-48A-48C-66A	B48 SCC only	
5CC#23	2A-48C-48C	B48 SCC only	
5CC#24	2A-48C-66A-66A	B48 SCC only	
5CC#25	2A-48D-66A	B48 SCC only	
5CC#26	2A-48E	B48 SCC only	
5CC#27	4A-48E		
5CC#28	5A-48C-66A-66A	B48 SCC only	
5CC#29	5A-48D-66A	B48 SCC only	
5CC#30	13A-48D-66A	B48 SCC only	
5CC#31	13A-48E	B48 SCC only	
5CC#32	48C-48C-66A	B48 SCC only	
5CC#33	48A-48D-66A	B48 SCC only	
5CC#34	48A-48E		
5CC#35	48C-48D		
5CC#36	48E-66A		

Index	6CC	Restriction	Completely Covered by Measurement Superset
6CC#1	2A-5A-48C-66A-66A	B48 SCC only	
6CC#2	2A-48E-66A	B48 SCC only	
6CC#3	5A-48D-66A-66A	B48 SCC only	

Note:

Only yellow highlight cells need power measurement according to LTE DL CA SAR test Exclusion in TCB workshop (April.2018).

LTE Release 10 Carrier Aggregation with 4x4 MIMO

Index	2CC	Restriction	Completely Covered by Measurement Superset	Index	3CC	Restriction	Completely Covered by Measurement Superset	Index	4CC	Restriction	Completely Covered by Measurement Superset
2CC#1	[2A]-2A		3CC#2	3CC#1	2A-2A-[4A]		4CC#1	4CC#1	2A-2A-[4A]-4A		
2CC#2	[2A]-[2A]		3CC#5	3CC#2	[2A]-2A-4A		4CC#3	4CC#2	2A-2A-[4A]-[4A]		
2CC#3	2A-[4A]		3CC#3	3CC#3	[2A]-2A-[4A]		4CC#4	4CC#3	[2A]-2A-4A-4A		
2CC#4	[2A]-4A		3CC#4	3CC#4	[2A]-[2A]-4A		4CC#6	4CC#4	[2A]-2A-[4A]-4A		
2CC#5	[2A]-[4A]		3CC#3	3CC#5	[2A]-[2A]-[4A]		4CC#7	4CC#5	[2A]-2A-[4A]-[4A]		
2CC#6	[2A]-5A		3CC#6	3CC#6	[2A]-2A-5A		4CC#10	4CC#6	[2A]-[2A]-4A-4A		
2CC#7	[2A]-12A		3CC#8	3CC#7	[2A]-[2A]-5A		4CC#12	4CC#7	[2A]-[2A]-[4A]-4A		
2CC#8	[2A]-13A		3CC#10	3CC#8	[2A]-2A-12A		4CC#15	4CC#8	[2A]-[2A]-[4A]-[4A]		
2CC#9	[2A]-14A		3CC#12	3CC#9	[2A]-[2A]-12A		4CC#17	4CC#9	2A-2A-[4A]-5A		
2CC#10	[2A]-29A	B29 SCC only	3CC#14	3CC#10	[2A]-2A-13A		4CC#47	4CC#10	[2A]-2A-4A-5A		
2CC#11	2A-[30A]		3CC#16	3CC#11	[2A]-[2A]-13A		4CC#49	4CC#11	[2A]-2A-[4A]-5A		
2CC#12	[2A]-30A		3CC#17	3CC#12	[2A]-2A-14A		4CC#52	4CC#12	[2A]-[2A]-4A-5A		
2CC#13	[2A]-[30A]		3CC#18	3CC#13	[2A]-[2A]-14A		4CC#54	4CC#13	[2A]-[2A]-[4A]-5A		
2CC#14	2A-[48A]	B48 SCC only	3CC#61	3CC#14	[2A]-2A-29A	B29 SCC only	4CC#62	4CC#14	2A-2A-[4A]-12A		
2CC#15	[2A]-48A	B48 SCC only	3CC#62	3CC#15	[2A]-[2A]-29A	B29 SCC only	4CC#64	4CC#15	[2A]-2A-4A-12A		
2CC#16	[2A]-[48A]	B48 SCC only	3CC#63	3CC#16	2A-2A-[30A]		4CC#61	4CC#16	[2A]-2A-[4A]-12A		
2CC#17	2A-[66A]		3CC#21	3CC#17	[2A]-2A-30A		4CC#62	4CC#17	[2A]-[2A]-4A-12A		
2CC#18	[2A]-66A		3CC#22	3CC#18	[2A]-2A-[30A]		4CC#63	4CC#18	[2A]-[2A]-[4A]-12A		
2CC#19	[2A]-[66A]		3CC#23	3CC#19	[2A]-[2A]-30A		4CC#64	4CC#19	2A-2A-[4A]-71A		
2CC#20	[2A]-71A		3CC#26	3CC#20	[2A]-[2A]-[30A]		4CC#65	4CC#20	[2A]-2A-4A-71A		
2CC#21	[2C]		3CC#116	3CC#21	2A-2A-[66A]		4CC#66	4CC#21	[2A]-2A-[4A]-71A		
2CC#22	[4A]-4A		3CC#118	3CC#22	[2A]-2A-66A		4CC#67	4CC#22	[2A]-[2A]-4A-71A		
2CC#23	[4A]-[4A]		3CC#119	3CC#23	[2A]-2A-[66A]		4CC#68	4CC#23	[2A]-[2A]-[4A]-71A		
2CC#24	[4A]-5A		3CC#118	3CC#24	[2A]-[2A]-66A		4CC#32	4CC#24	2A-2A-5A-[30A]		5CC#3
2CC#25	[4A]-12A		3CC#120	3CC#25	[2A]-[2A]-[66A]		4CC#33	4CC#25	[2A]-2A-5A-30A		5CC#4
2CC#26	[4A]-13A		3CC#122	3CC#26	[2A]-2A-71A		4CC#91	4CC#26	[2A]-2A-5A-[30A]		5CC#6
2CC#27	4A-[48A]	B48 SCC only		3CC#27	[2A]-[2A]-71A		4CC#93	4CC#27	[2A]-[2A]-5A-30A		5CC#8
2CC#28	[4A]-48A	B48 SCC only		3CC#28	2A-[4A]-4A		4CC#110	4CC#28	[2A]-[2A]-5A-[30A]		5CC#10
2CC#29	[4A]-[48A]	B48 SCC only		3CC#29	2A-[4A]-[4A]		4CC#111	4CC#29	2A-2A-5A-[66A]		5CC#1
2CC#30	[4A]-71A		3CC#124	3CC#30	[2A]-4A-4A		4CC#112	4CC#30	[2A]-2A-5A-66A		5CC#4
2CC#31	5A-[25A]			3CC#31	[2A]-[4A]-4A		4CC#113	4CC#31	[2A]-2A-5A-[66A]		5CC#5
2CC#32	5A-[30A]		3CC#130	3CC#32	[2A]-[4A]-[4A]		4CC#114	4CC#32	[2A]-[2A]-5A-66A		5CC#8
2CC#33	5A-[41A]			3CC#33	2A-[4A]-5A		4CC#105	4CC#33	[2A]-[2A]-5A-[66A]		5CC#9
2CC#34	5A-[48A]	B48 SCC only	3CC#135	3CC#34	[2A]-4A-5A		4CC#107	4CC#34	2A-2A-12A-[30A]		5CC#32
2CC#35	5A-[66A]		3CC#135	3CC#35	[2A]-[4A]-5A		4CC#108	4CC#35	[2A]-2A-12A-30A		5CC#33
2CC#36	12A-[25A]			3CC#36	2A-[4A]-12A		4CC#110	4CC#36	[2A]-2A-12A-[30A]		5CC#36
2CC#37	12A-[30A]		3CC#142	3CC#37	[2A]-4A-12A		4CC#112	4CC#37	[2A]-[2A]-12A-30A		5CC#37
2CC#38	12A-[66A]		3CC#144	3CC#38	[2A]-[4A]-12A		4CC#113	4CC#38	[2A]-[2A]-12A-[30A]		5CC#39
2CC#39	13A-[48A]	B48 SCC only	3CC#149	3CC#39	2A-[4A]-13A			4CC#39	2A-2A-12A-[66A]		5CC#32
2CC#40	13A-[66A]		3CC#150	3CC#40	[2A]-4A-13A			4CC#40	[2A]-2A-12A-66A		5CC#33
2CC#41	14A-[30A]		3CC#159	3CC#41	[2A]-[4A]-13A			4CC#41	[2A]-2A-12A-[66A]		5CC#34
2CC#42	14A-[66A]		3CC#159	3CC#42	2A-[4A]-71A		4CC#19	4CC#42	[2A]-[2A]-12A-66A		5CC#37
2CC#43	[25A]-25A			3CC#43	[2A]-4A-71A		4CC#20	4CC#43	[2A]-[2A]-12A-[66A]		5CC#38
2CC#44	[25A]-[25A]			3CC#44	[2A]-[4A]-71A		4CC#21	4CC#44	[2A]-2A-12B		5CC#51
2CC#45	25A-[41A]	B41 SCC only		3CC#45	2A-5A-[30A]		4CC#24	4CC#45	[2A]-[2A]-12B		5CC#52

Note:

Only yellow highlight cells need power measurement according to LTE DL CA SAR test Exclusion in TCB workshop (April.2018).

LTE Release 10 Carrier Aggregation with 4x4 MIMO (Continued)

Index	2CC	Restriction	Completely Covered by Measurement Superset	Index	3CC	Restriction	Completely Covered by Measurement Superset	Index	4CC	Restriction	Completely Covered by Measurement Superset
2CC#46	[25A]-41A	B41 SCC only		3CC#46	[2A]-5A-30A		4CC#25	4CC#46	2A-2A-13A-[66A]		5CC#54
2CC#47	[25A]-[41A]	B41 SCC only		3CC#47	[2A]-5A-[30A]		4CC#26	4CC#47	[2A]-2A-13A-66A		5CC#56
2CC#48	29A-[30A]	B29 SCC only	3CC#166	3CC#48	2A-5A-[48A]		4CC#126	4CC#48	[2A]-2A-13A-[66A]		5CC#57
2CC#49	29A-[66A]	B29 SCC only	3CC#165	3CC#49	[2A]-5A-48A		4CC#128	4CC#49	[2A]-[2A]-13A-66A		5CC#59
2CC#50	30A-[66A]		3CC#165	3CC#50	[2A]-5A-[48A]		4CC#130	4CC#50	[2A]-[2A]-13A-[66A]		5CC#60
2CC#51	[30A]-66A		3CC#166	3CC#51	2A-5A-[66A]		4CC#125	4CC#51	2A-2A-14A-[30A]		5CC#64
2CC#52	[30A]-[66A]		3CC#167	3CC#52	[2A]-5A-66A		4CC#128	4CC#52	[2A]-2A-14A-30A		5CC#65
2CC#53	[41A]-41A			3CC#53	[2A]-5A-[66A]		4CC#129	4CC#53	[2A]-2A-14A-[30A]		5CC#67
2CC#54	[41A]-[41A]			3CC#54	2A-12A-[30A]		4CC#148	4CC#54	[2A]-[2A]-14A-30A		5CC#69
2CC#55	[41C]		3CC#175	3CC#55	[2A]-12A-30A		4CC#149	4CC#55	[2A]-[2A]-14A-[30A]		5CC#71
2CC#56	[48A]-48A		3CC#180	3CC#56	[2A]-12A-[30A]		4CC#151	4CC#56	2A-2A-14A-[66A]		5CC#62
2CC#57	[48A]-[48A]		3CC#182	3CC#57	2A-12A-[66A]		4CC#148	4CC#57	[2A]-2A-14A-66A		5CC#65
2CC#58	48A-[66A]	B48 SCC only	3CC#179	3CC#58	[2A]-12A-66A		4CC#149	4CC#58	[2A]-2A-14A-[66A]		5CC#66
2CC#59	[48A]-66A	B48 SCC only	3CC#180	3CC#59	[2A]-12A-[66A]		4CC#152	4CC#59	[2A]-[2A]-14A-66A		5CC#69
2CC#60	[48A]-[66A]	B48 SCC only	3CC#183	3CC#60	[2A]-12B		4CC#44	4CC#60	[2A]-[2A]-14A-[66A]		5CC#70
2CC#61	[48A]-71A	B48 SCC only	3CC#184	3CC#61	2A-13A-[48A]	B48 SCC only	4CC#165	4CC#61	2A-2A-29A-[30A]	B29 SCC only	5CC#82
2CC#62	[48B]			3CC#62	[2A]-13A-48A	B48 SCC only	4CC#167	4CC#62	[2A]-2A-29A-30A	B29 SCC only	5CC#84
2CC#63	[48C]		3CC#186	3CC#63	[2A]-13A-[48A]	B48 SCC only	4CC#170	4CC#63	[2A]-2A-29A-[30A]	B29 SCC only	5CC#86
2CC#64	[66A]-66A		3CC#189	3CC#64	2A-13A-[66A]		4CC#164	4CC#64	[2A]-[2A]-29A-30A	B29 SCC only	5CC#88
2CC#65	[66A]-[66A]		3CC#193	3CC#65	[2A]-13A-66A		4CC#167	4CC#65	[2A]-[2A]-29A-[30A]	B29 SCC only	5CC#90
2CC#66	[66A]-71A		3CC#209	3CC#66	[2A]-13A-[66A]		4CC#168	4CC#66	2A-2A-29A-[66A]	B29 SCC only	5CC#81
2CC#67	[66B]		3CC#194	3CC#67	2A-14A-[30A]		4CC#186	4CC#67	[2A]-2A-29A-66A	B29 SCC only	5CC#84
2CC#68	[66C]		3CC#210	3CC#68	[2A]-14A-30A		4CC#188	4CC#68	[2A]-2A-29A-[66A]	B29 SCC only	5CC#85
				3CC#69	[2A]-14A-[30A]		4CC#190	4CC#69	[2A]-[2A]-29A-66A	B29 SCC only	5CC#88
				3CC#70	2A-14A-[66A]		4CC#192	4CC#70	[2A]-[2A]-29A-[66A]	B29 SCC only	5CC#89
				3CC#71	[2A]-14A-66A		4CC#194	4CC#71	2A-2A-30A-[66A]		5CC#81
				3CC#72	[2A]-14A-[66A]		4CC#195	4CC#72	2A-2A-[30A]-66A		5CC#82
				3CC#73	2A-29A-[30A]	B29 SCC only	4CC#198	4CC#73	2A-2A-[30A]-[66A]		5CC#83
				3CC#74	[2A]-29A-30A	B29 SCC only	4CC#200	4CC#74	[2A]-2A-30A-66A		5CC#84
				3CC#75	[2A]-29A-[30A]	B29 SCC only	4CC#202	4CC#75	[2A]-2A-30A-[66A]		5CC#85
				3CC#76	2A-29A-[66A]	B29 SCC only	4CC#197	4CC#76	[2A]-2A-[30A]-66A		5CC#86
				3CC#77	[2A]-29A-66A	B29 SCC only	4CC#200	4CC#77	[2A]-2A-[30A]-[66A]		5CC#87
				3CC#78	[2A]-29A-[66A]	B29 SCC only	4CC#203	4CC#78	[2A]-[2A]-30A-66A		5CC#88
				3CC#79	2A-30A-[66A]		4CC#209	4CC#79	[2A]-[2A]-30A-[66A]		5CC#89
				3CC#80	2A-[30A]-66A		4CC#211	4CC#80	[2A]-[2A]-[30A]-66A		5CC#90
				3CC#81	2A-[30A]-[66A]		4CC#212	4CC#81	[2A]-[2A]-[30A]-[66A]		5CC#91
				3CC#82	[2A]-30A-66A		4CC#214	4CC#82	2A-2A-[66A]-66A		5CC#92
				3CC#83	[2A]-30A-[66A]		4CC#215	4CC#83	2A-2A-[66A]-[66A]		5CC#93
				3CC#84	[2A]-[30A]-66A		4CC#217	4CC#84	[2A]-2A-66A-66A		5CC#94
				3CC#85	[2A]-[30A]-[66A]		4CC#218	4CC#85	[2A]-2A-[66A]-66A		5CC#95
				3CC#86	2A-[48A]-48A	B48 SCC only	4CC#221	4CC#86	[2A]-2A-[66A]-[66A]		5CC#96
				3CC#87	2A-[48A]-[48A]	B48 SCC only	4CC#223	4CC#87	[2A]-[2A]-66A-66A		5CC#97
				3CC#88	[2A]-48A-48A	B48 SCC only	4CC#225	4CC#88	[2A]-[2A]-[66A]-66A		5CC#98
				3CC#89	[2A]-[48A]-48A	B48 SCC only	4CC#227	4CC#89	[2A]-[2A]-[66A]-[66A]		5CC#99
				3CC#90	[2A]-[48A]-[48A]	B48 SCC only	4CC#229	4CC#90	2A-2A-[66A]-71A		

Note: Only yellow highlight cells need power measurement according to LTE DL CA SAR test Exclusion in TCB workshop (April.2018).

LTE Release 10 Carrier Aggregation with 4x4 MIMO (Continued)

Index	3CC	Restriction	Completely Covered by Measurement Superset	Index	4CC	Restriction	Completely Covered by Measurement Superset	Index	5CC	Restriction	Completely Covered by Measurement Superset
3CC#91	2A-48A-[66A]	B48 SCC only	4CC#220	4CC#91	[2A]-2A-66A-71A			5CC#1	2A-2A-5A-30A-[66A]		
3CC#92	2A-[48A]-66A	B48 SCC only	4CC#221	4CC#92	[2A]-2A-[66A]-71A			5CC#2	2A-2A-5A-[30A]-66A		
3CC#93	2A-[48A]-[66A]	B48 SCC only	4CC#222	4CC#93	[2A]-[2A]-66A-71A			5CC#3	2A-2A-5A-[30A]-[66A]		
3CC#94	[2A]-48A-66A	B48 SCC only	4CC#225	4CC#94	[2A]-[2A]-[66A]-71A			5CC#4	[2A]-2A-5A-30A-66A		
3CC#95	[2A]-48A-[66A]	B48 SCC only	4CC#226	4CC#95	2A-2A-[66B]		5CC#20	5CC#5	[2A]-2A-5A-30A-[66A]		
3CC#96	[2A]-[48A]-66A	B48 SCC only	4CC#227	4CC#96	[2A]-2A-66B		5CC#21	5CC#6	[2A]-2A-5A-[30A]-66A		
3CC#97	[2A]-[48A]-[66A]	B48 SCC only	4CC#228	4CC#97	[2A]-2A-[66B]		5CC#22	5CC#7	[2A]-2A-5A-[30A]-[66A]		
3CC#98	2A-[48C]	B48 SCC only	4CC#231	4CC#98	[2A]-[2A]-66B		5CC#23	5CC#8	[2A]-[2A]-5A-30A-66A		
3CC#99	[2A]-48C	B48 SCC only	4CC#232	4CC#99	[2A]-[2A]-[66B]		5CC#24	5CC#9	[2A]-[2A]-5A-30A-[66A]		
3CC#100	[2A]-[48C]	B48 SCC only	4CC#235	4CC#100	2A-2A-[66C]		5CC#25	5CC#10	[2A]-[2A]-5A-[30A]-66A		
3CC#101	2A-[66A]-66A		4CC#238	4CC#101	[2A]-2A-66C		5CC#26	5CC#11	[2A]-[2A]-5A-[30A]-[66A]		
3CC#102	2A-[66A]-[66A]		4CC#239	4CC#102	[2A]-2A-[66C]		5CC#27	5CC#12	2A-2A-5A-[66A]-66A		
3CC#103	[2A]-66A-66A		4CC#243	4CC#103	[2A]-[2A]-66C		5CC#28	5CC#13	2A-2A-5A-[66A]-[66A]		
3CC#104	[2A]-[66A]-66A		4CC#244	4CC#104	[2A]-[2A]-[66C]		5CC#29	5CC#14	[2A]-2A-5A-66A-66A		
3CC#105	[2A]-[66A]-[66A]		4CC#245	4CC#105	2A-[4A]-4A-5A			5CC#15	[2A]-2A-5A-[66A]-66A		
3CC#106	2A-[66A]-71A		4CC#260	4CC#106	2A-[4A]-[4A]-5A			5CC#16	[2A]-2A-5A-[66A]-[66A]		
3CC#107	[2A]-66A-71A		4CC#261	4CC#107	[2A]-4A-4A-5A			5CC#17	[2A]-[2A]-5A-66A-66A		
3CC#108	[2A]-[66A]-71A		4CC#262	4CC#108	[2A]-[4A]-4A-5A			5CC#18	[2A]-[2A]-5A-[66A]-66A		
3CC#109	2A-[66B]		5CC#20	4CC#109	[2A]-[4A]-[4A]-5A			5CC#19	[2A]-[2A]-5A-[66A]-[66A]		
3CC#110	[2A]-66B		5CC#21	4CC#110	2A-[4A]-4A-12A			5CC#20	2A-2A-5A-[66B]		
3CC#111	[2A]-[66B]		5CC#22	4CC#111	2A-[4A]-[4A]-12A			5CC#21	[2A]-2A-5A-66B		
3CC#112	2A-[66C]		5CC#25	4CC#112	[2A]-4A-4A-12A			5CC#22	[2A]-2A-5A-[66B]		
3CC#113	[2A]-66C		5CC#26	4CC#113	[2A]-[4A]-4A-12A			5CC#23	[2A]-[2A]-5A-66B		
3CC#114	[2A]-[66C]		5CC#27	4CC#114	[2A]-[4A]-[4A]-12A			5CC#24	[2A]-[2A]-5A-[66B]		
3CC#115	2C-[66A]		4CC#265	4CC#115	2A-[4A]-12B			5CC#25	2A-2A-5A-[66C]		
3CC#116	[2C]-66A		4CC#266	4CC#116	[2A]-4A-12B			5CC#26	[2A]-2A-5A-66C		
3CC#117	[2C]-[66A]		4CC#267	4CC#117	[2A]-[4A]-12B			5CC#27	[2A]-2A-5A-[66C]		
3CC#118	[4A]-4A-5A		4CC#108	4CC#118	2A-5A-30A-[66A]		5CC#1	5CC#28	[2A]-[2A]-5A-66C		
3CC#119	[4A]-[4A]-5A		4CC#106	4CC#119	2A-5A-[30A]-66A		5CC#2	5CC#29	[2A]-[2A]-5A-[66C]		
3CC#120	[4A]-4A-12A		4CC#110	4CC#120	2A-5A-[30A]-[66A]		5CC#3	5CC#30	2A-2A-12A-30A-[66A]		
3CC#121	[4A]-[4A]-12A		4CC#111	4CC#121	[2A]-5A-30A-66A		5CC#4	5CC#31	2A-2A-12A-[30A]-66A		
3CC#122	[4A]-4A-13A			4CC#122	[2A]-5A-30A-[66A]		5CC#5	5CC#32	2A-2A-12A-[30A]-[66A]		
3CC#123	[4A]-[4A]-13A			4CC#123	[2A]-5A-[30A]-66A		5CC#6	5CC#33	[2A]-2A-12A-30A-66A		
3CC#124	[4A]-4A-71A			4CC#124	[2A]-5A-[30A]-[66A]		5CC#7	5CC#34	[2A]-2A-12A-30A-[66A]		
3CC#125	[4A]-[4A]-71A			4CC#125	2A-5A-48A-[66A]	B48 SCC only	5CC#111	5CC#35	[2A]-2A-12A-[30A]-66A		
3CC#126	[4A]-12B		4CC#272	4CC#126	2A-5A-[48A]-66A	B48 SCC only	5CC#113	5CC#36	[2A]-2A-12A-[30A]-[66A]		
3CC#127	4A-[48C]	B48 SCC only		4CC#127	2A-5A-[48A]-[66A]	B48 SCC only	5CC#113	5CC#37	[2A]-[2A]-12A-30A-66A		
3CC#128	[4A]-48C	B48 SCC only		4CC#128	[2A]-5A-48A-66A	B48 SCC only	5CC#116	5CC#38	[2A]-[2A]-12A-30A-[66A]		
3CC#129	[4A]-[48C]	B48 SCC only		4CC#129	[2A]-5A-48A-[66A]	B48 SCC only	5CC#117	5CC#39	[2A]-[2A]-12A-[30A]-66A		
3CC#130	5A-30A-[66A]		4CC#277	4CC#130	[2A]-5A-[48A]-66A	B48 SCC only	5CC#119	5CC#40	[2A]-[2A]-12A-[30A]-[66A]		
3CC#131	5A-[30A]-66A		4CC#279	4CC#131	[2A]-5A-[48A]-[66A]	B48 SCC only	5CC#120	5CC#41	2A-2A-12A-[66A]-66A		
3CC#132	5A-[30A]-[66A]		4CC#281	4CC#132	2A-5A-[48C]	B48 SCC only	5CC#123	5CC#42	2A-2A-12A-[66A]-[66A]		
3CC#133	5A-48A-[66A]	B48 SCC only	4CC#283	4CC#133	[2A]-5A-48C	B48 SCC only	5CC#125	5CC#43	[2A]-2A-12A-66A-66A		
3CC#134	5A-[48A]-66A	B48 SCC only	4CC#284	4CC#134	[2A]-5A-[48C]	B48 SCC only	5CC#127	5CC#44	[2A]-2A-12A-[66A]-66A		
3CC#135	5A-[48A]-[66A]	B48 SCC only	4CC#285	4CC#135	2A-5A-[66A]-66A		5CC#100	5CC#45	[2A]-2A-12A-[66A]-[66A]		

Note: Only yellow highlight cells need power measurement according to LTE DL CA SAR test Exclusion in TCB workshop (April.2018).

LTE Release 10 Carrier Aggregation with 4x4 MIMO (Continued)

Index	3CC	Restriction	Completely Covered by Measurement Superset	Index	4CC	Restriction	Completely Covered by Measurement Superset	Index	5CC	Restriction	Completely Covered by Measurement Superset
3CC#136	5A-[48C]	B48 SCC only	4CC#288	4CC#136	2A-5A-[66A]-[66A]		5CC#101	5CC#46	[2A]-[2A]-12A-66A-66A		
3CC#137	5A-[66A]-66A		4CC#285	4CC#137	[2A]-5A-66A-66A		5CC#105	5CC#47	[2A]-[2A]-12A-[66A]-66A		
3CC#138	5A-[66A]-[66A]		4CC#286	4CC#138	[2A]-5A-[66A]-66A		5CC#106	5CC#48	[2A]-[2A]-12A-[66A]-[66A]		
3CC#139	5A-[66B]		5CC#20	4CC#139	[2A]-5A-[66A]-[66A]		5CC#107	5CC#49	2A-2A-12B-[66A]		
3CC#140	5A-[66C]		5CC#25	4CC#140	2A-5A-[66B]		5CC#20	5CC#50	[2A]-2A-12B-66A		
3CC#141	12A-30A-[66A]		4CC#150	4CC#141	[2A]-5A-66B		5CC#21	5CC#51	[2A]-2A-12B-[66A]		
3CC#142	12A-[30A]-66A		4CC#151	4CC#142	[2A]-5A-[66B]		5CC#22	5CC#52	[2A]-[2A]-12B-66A		
3CC#143	12A-[30A]-[66A]		4CC#152	4CC#143	2A-5A-[66C]		5CC#25	5CC#53	[2A]-[2A]-12B-[66A]		
3CC#144	12A-[66A]-66A		4CC#156	4CC#144	[2A]-5A-66C		5CC#26	5CC#54	2A-2A-13A-[66A]-66A		
3CC#145	12A-[66A]-[66A]		4CC#157	4CC#145	[2A]-5A-[66C]		5CC#27	5CC#55	2A-2A-13A-[66A]-[66A]		
3CC#146	12A-[66C]		4CC#160	4CC#146	2A-12A-30A-[66A]		5CC#30	5CC#56	[2A]-2A-13A-66A-66A		
3CC#147	12B-[66A]		4CC#161	4CC#147	2A-12A-[30A]-66A		5CC#31	5CC#57	[2A]-2A-13A-[66A]-66A		
3CC#148	13A-48A-[66A]	B48 SCC only	4CC#164	4CC#148	2A-12A-[30A]-[66A]		5CC#32	5CC#58	[2A]-2A-13A-[66A]-[66A]		
3CC#149	13A-[48A]-66A	B48 SCC only	4CC#165	4CC#149	[2A]-12A-30A-66A		5CC#33	5CC#59	[2A]-[2A]-13A-66A-66A		
3CC#150	13A-[48A]-[66A]	B48 SCC only	4CC#166	4CC#150	[2A]-12A-30A-[66A]		5CC#34	5CC#60	[2A]-[2A]-13A-[66A]-66A		
3CC#151	13A-[48B]	B48 SCC only		4CC#151	[2A]-12A-[30A]-66A		5CC#35	5CC#61	[2A]-[2A]-13A-[66A]-[66A]		
3CC#152	13A-[48C]	B48 SCC only	4CC#171	4CC#152	[2A]-12A-[30A]-[66A]		5CC#36	5CC#62	2A-2A-14A-30A-[66A]		
3CC#153	13A-[66A]-66A		4CC#177	4CC#153	2A-12A-[66A]-66A		5CC#41	5CC#63	2A-2A-14A-[30A]-66A		
3CC#154	13A-[66A]-[66A]		4CC#178	4CC#154	2A-12A-[66A]-[66A]		5CC#42	5CC#64	2A-2A-14A-[30A]-[66A]		
3CC#155	13A-[66B]		4CC#181	4CC#155	[2A]-12A-66A-66A		5CC#43	5CC#65	[2A]-2A-14A-30A-66A		
3CC#156	13A-[66C]		4CC#182	4CC#156	[2A]-12A-[66A]-66A		5CC#44	5CC#66	[2A]-2A-14A-30A-[66A]		
3CC#157	14A-30A-[66A]		4CC#185	4CC#157	[2A]-12A-[66A]-[66A]		5CC#45	5CC#67	[2A]-2A-14A-[30A]-66A		
3CC#158	14A-[30A]-66A		4CC#186	4CC#158	2A-12A-[66C]			5CC#68	[2A]-2A-14A-[30A]-[66A]		
3CC#159	14A-[30A]-[66A]		4CC#187	4CC#159	[2A]-12A-66C			5CC#69	[2A]-[2A]-14A-30A-66A		
3CC#160	14A-[66A]-66A		4CC#192	4CC#160	[2A]-12A-[66C]			5CC#70	[2A]-[2A]-14A-30A-[66A]		
3CC#161	14A-[66A]-[66A]		4CC#193	4CC#161	2A-12B-[66A]		5CC#49	5CC#71	[2A]-[2A]-14A-[30A]-66A		
3CC#162	25A-[41C]	B41 SCC only		4CC#162	[2A]-12B-66A		5CC#50	5CC#72	[2A]-[2A]-14A-[30A]-[66A]		
3CC#163	[25A]-41C	B41 SCC only		4CC#163	[2A]-12B-[66A]		5CC#51	5CC#73	2A-2A-14A-[66A]-66A		
3CC#164	[25A]-[41C]	B41 SCC only		4CC#164	2A-13A-48A-[66A]	B48 SCC only		5CC#74	2A-2A-14A-[66A]-[66A]		
3CC#165	29A-30A-[66A]	B29 SCC only	4CC#317	4CC#165	2A-13A-[48A]-66A	B48 SCC only		5CC#75	[2A]-2A-14A-66A-66A		
3CC#166	29A-[30A]-66A	B29 SCC only	4CC#318	4CC#166	2A-13A-[48A]-[66A]	B48 SCC only		5CC#76	[2A]-2A-14A-[66A]-66A		
3CC#167	29A-[30A]-[66A]	B29 SCC only	4CC#319	4CC#167	[2A]-13A-48A-66A	B48 SCC only		5CC#77	[2A]-2A-14A-[66A]-[66A]		
3CC#168	29A-[66A]-66A	B29 SCC only	4CC#316	4CC#168	[2A]-13A-48A-[66A]	B48 SCC only		5CC#78	[2A]-[2A]-14A-66A-66A		
3CC#169	29A-[66A]-[66A]	B29 SCC only	4CC#317	4CC#169	[2A]-13A-[48A]-66A	B48 SCC only		5CC#79	[2A]-[2A]-14A-[66A]-66A		
3CC#170	30A-[66A]-66A		4CC#316	4CC#170	[2A]-13A-[48A]-[66A]	B48 SCC only		5CC#80	[2A]-[2A]-14A-[66A]-[66A]		
3CC#171	30A-[66A]-[66A]		4CC#317	4CC#171	2A-13A-[48C]	B48 SCC only	5CC#150	5CC#81	2A-2A-29A-30A-[66A]	B29 SCC only	
3CC#172	[30A]-66A-66A		4CC#318	4CC#172	[2A]-13A-48C	B48 SCC only	5CC#151	5CC#82	2A-2A-29A-[30A]-66A	B29 SCC only	
3CC#173	[30A]-[66A]-66A		4CC#319	4CC#173	[2A]-13A-[48C]	B48 SCC only	5CC#153	5CC#83	2A-2A-29A-[30A]-[66A]	B29 SCC only	
3CC#174	[30A]-[66A]-[66A]		4CC#320	4CC#174	2A-13A-[66A]-66A		5CC#54	5CC#84	[2A]-2A-29A-30A-66A	B29 SCC only	
3CC#175	41A-[41C]			4CC#175	2A-13A-[66A]-[66A]		5CC#55	5CC#85	[2A]-2A-29A-30A-[66A]	B29 SCC only	
3CC#176	[41A]-41C			4CC#176	[2A]-13A-66A-66A		5CC#56	5CC#86	[2A]-2A-29A-[30A]-66A	B29 SCC only	
3CC#177	[41A]-[41C]			4CC#177	[2A]-13A-[66A]-66A		5CC#57	5CC#87	[2A]-2A-29A-[30A]-[66A]	B29 SCC only	
3CC#178	[41D]			4CC#178	[2A]-13A-[66A]-[66A]		5CC#58	5CC#88	[2A]-[2A]-29A-30A-66A	B29 SCC only	
3CC#179	48A-48A-[66A]	B48 SCC only	4CC#323	4CC#179	2A-13A-[66B]			5CC#89	[2A]-[2A]-29A-30A-[66A]	B29 SCC only	
3CC#180	[48A]-48A-66A	B48 SCC only	4CC#324	4CC#180	[2A]-13A-66B			5CC#90	[2A]-[2A]-29A-[30A]-66A	B29 SCC only	

Note: Only yellow highlight cells need power measurement according to LTE DL CA SAR test Exclusion in TCB workshop (April.2018).

LTE Release 10 Carrier Aggregation with 4x4 MIMO (Continued)

Index	3CC	Restriction	Completely Covered by Measurement Superset	Index	4CC	Restriction	Completely Covered by Measurement Superset	Index	5CC	Restriction	Completely Covered by Measurement Superset
3CC#181	[48A]-48A-[66A]	B48 SCC only	4CC#325	4CC#181	[2A]-13A-[66B]			5CC#91	[2A]-[2A]-29A-[30A]-[66A]	B29 SCC only	
3CC#182	[48A]-[48A]-66A	B48 SCC only	4CC#326	4CC#182	2A-13A-[66C]			5CC#92	2A-2A-29A-[66A]-66A	B29 SCC only	
3CC#183	[48A]-[48A]-[66A]	B48 SCC only	4CC#327	4CC#183	[2A]-13A-66C			5CC#93	2A-2A-29A-[66A]-[66A]	B29 SCC only	
3CC#184	[48A]-48A-71A	B48 SCC only		4CC#184	[2A]-13A-[66C]			5CC#94	[2A]-2A-29A-66A-66A	B29 SCC only	
3CC#185	[48A]-[48A]-71A	B48 SCC only		4CC#185	2A-14A-30A-[66A]		5CC#62	5CC#95	[2A]-2A-29A-[66A]-66A	B29 SCC only	
3CC#186	48A-[48C]			4CC#186	2A-14A-[30A]-66A		5CC#63	5CC#96	[2A]-2A-29A-[66A]-[66A]	B29 SCC only	
3CC#187	[48A]-48C			4CC#187	2A-14A-[30A]-[66A]		5CC#64	5CC#97	[2A]-[2A]-29A-66A-66A	B29 SCC only	
3CC#188	[48A]-[48C]			4CC#188	[2A]-14A-30A-66A		5CC#65	5CC#98	[2A]-[2A]-29A-[66A]-66A	B29 SCC only	
3CC#189	48A-[66A]-66A	B48 SCC only	4CC#244	4CC#189	[2A]-14A-30A-[66A]		5CC#66	5CC#99	[2A]-[2A]-29A-[66A]-[66A]	B29 SCC only	
3CC#190	48A-[66A]-[66A]	B48 SCC only	4CC#245	4CC#190	[2A]-14A-[30A]-66A		5CC#67	5CC#100	2A-5A-30A-[66A]-66A		
3CC#191	[48A]-66A-66A	B48 SCC only	4CC#246	4CC#191	[2A]-14A-[30A]-[66A]		5CC#68	5CC#101	2A-5A-30A-[66A]-[66A]		
3CC#192	[48A]-[66A]-66A	B48 SCC only	4CC#247	4CC#192	2A-14A-[66A]-66A		5CC#73	5CC#102	2A-5A-[30A]-66A-66A		
3CC#193	[48A]-[66A]-[66A]	B48 SCC only	4CC#248	4CC#193	2A-14A-[66A]-[66A]		5CC#74	5CC#103	2A-5A-[30A]-[66A]-66A		
3CC#194	48A-[66B]	B48 SCC only	4CC#298	4CC#194	[2A]-14A-66A-66A		5CC#75	5CC#104	2A-5A-[30A]-[66A]-[66A]		
3CC#195	[48A]-66B	B48 SCC only	4CC#299	4CC#195	[2A]-14A-[66A]-66A		5CC#76	5CC#105	[2A]-5A-30A-66A-66A		
3CC#196	[48A]-[66B]	B48 SCC only	4CC#300	4CC#196	[2A]-14A-[66A]-[66A]		5CC#77	5CC#106	[2A]-5A-30A-[66A]-66A		
3CC#197	48A-[66C]	B48 SCC only	4CC#301	4CC#197	2A-29A-30A-[66A]	B29 SCC only	5CC#81	5CC#107	[2A]-5A-30A-[66A]-[66A]		
3CC#198	[48A]-66C	B48 SCC only	4CC#302	4CC#198	2A-29A-[30A]-66A	B29 SCC only	5CC#82	5CC#108	[2A]-5A-[30A]-66A-66A		
3CC#199	[48A]-[66C]	B48 SCC only	4CC#303	4CC#199	2A-29A-[30A]-[66A]	B29 SCC only	5CC#83	5CC#109	[2A]-5A-[30A]-[66A]-66A		
3CC#200	48B-[66A]	B48 SCC only		4CC#200	[2A]-29A-30A-66A	B29 SCC only	5CC#84	5CC#110	[2A]-5A-[30A]-[66A]-[66A]		
3CC#201	[48B]-66A	B48 SCC only		4CC#201	[2A]-29A-30A-[66A]	B29 SCC only	5CC#85	5CC#111	2A-5A-48A-[66A]-66A	B48 SCC only	
3CC#202	[48B]-[66A]	B48 SCC only		4CC#202	[2A]-29A-[30A]-66A	B29 SCC only	5CC#86	5CC#112	2A-5A-48A-[66A]-[66A]	B48 SCC only	
3CC#203	48C-[66A]	B48 SCC only	4CC#304	4CC#203	[2A]-29A-[30A]-[66A]	B29 SCC only	5CC#87	5CC#113	2A-5A-[48A]-66A-66A	B48 SCC only	
3CC#204	[48C]-66A	B48 SCC only	4CC#305	4CC#204	2A-29A-[66A]-66A	B29 SCC only	5CC#92	5CC#114	2A-5A-[48A]-[66A]-66A	B48 SCC only	
3CC#205	[48C]-[66A]	B48 SCC only	4CC#306	4CC#205	2A-29A-[66A]-[66A]	B29 SCC only	5CC#93	5CC#115	2A-5A-[48A]-[66A]-[66A]	B48 SCC only	
3CC#206	[48C]-71A	B48 SCC only		4CC#206	[2A]-29A-66A-66A	B29 SCC only	5CC#94	5CC#116	[2A]-5A-48A-66A-66A	B48 SCC only	
3CC#207	[48D]		4CC#336	4CC#207	[2A]-29A-[66A]-66A	B29 SCC only	5CC#95	5CC#117	[2A]-5A-48A-[66A]-66A	B48 SCC only	
3CC#208	[66A]-66A-71A		4CC#259	4CC#208	[2A]-29A-[66A]-[66A]	B29 SCC only	5CC#96	5CC#118	[2A]-5A-48A-[66A]-[66A]	B48 SCC only	
3CC#209	[66A]-[66A]-71A		4CC#260	4CC#209	2A-30A-[66A]-66A		5CC#100	5CC#119	[2A]-5A-[48A]-66A-66A	B48 SCC only	
3CC#210	[66C]-71A		4CC#269	4CC#210	2A-30A-[66A]-[66A]		5CC#101	5CC#120	[2A]-5A-[48A]-[66A]-66A	B48 SCC only	
				4CC#211	2A-[30A]-66A-66A		5CC#102	5CC#121	[2A]-5A-[48A]-[66A]-[66A]	B48 SCC only	
				4CC#212	2A-[30A]-[66A]-66A		5CC#103	5CC#122	2A-5A-48C-[66A]	B48 SCC only	6CC#2
				4CC#213	2A-[30A]-[66A]-[66A]		5CC#104	5CC#123	2A-5A-[48C]-66A	B48 SCC only	6CC#3
				4CC#214	[2A]-30A-66A-66A		5CC#105	5CC#124	2A-5A-[48C]-[66A]	B48 SCC only	6CC#4
				4CC#215	[2A]-30A-[66A]-66A		5CC#106	5CC#125	[2A]-5A-48C-66A	B48 SCC only	6CC#6
				4CC#216	[2A]-30A-[66A]-[66A]		5CC#107	5CC#126	[2A]-5A-48C-[66A]	B48 SCC only	6CC#7
				4CC#217	[2A]-[30A]-66A-66A		5CC#108	5CC#127	[2A]-5A-[48C]-66A	B48 SCC only	6CC#9
				4CC#218	[2A]-[30A]-[66A]-66A		5CC#109	5CC#128	[2A]-5A-[48C]-[66A]	B48 SCC only	6CC#10
				4CC#219	[2A]-[30A]-[66A]-[66A]		5CC#110	5CC#129	2A-5A-[48D]	B48 SCC only	
				4CC#220	2A-48A-48A-[66A]	B48 SCC only		5CC#130	[2A]-5A-48D	B48 SCC only	
				4CC#221	2A-[48A]-48A-66A	B48 SCC only		5CC#131	[2A]-5A-[48D]	B48 SCC only	
				4CC#222	2A-[48A]-48A-[66A]	B48 SCC only		5CC#132	2A-12A-30A-[66A]-66A		
				4CC#223	2A-[48A]-[48A]-66A	B48 SCC only		5CC#133	2A-12A-30A-[66A]-[66A]		
				4CC#224	2A-[48A]-[48A]-[66A]	B48 SCC only		5CC#134	2A-12A-[30A]-66A-66A		
				4CC#225	[2A]-48A-48A-66A	B48 SCC only		5CC#135	2A-12A-[30A]-[66A]-66A		

Note: Only yellow highlight cells need power measurement according to LTE DL CA SAR test Exclusion in TCB workshop (April.2018).

LTE Release 10 Carrier Aggregation with 4x4 MIMO (Continued)

Index	4CC	Restriction	Completely Covered by Measurement Superset
4CC#226	[2A]-48A-48A-[66A]	B48 SCC only	
4CC#227	[2A]-[48A]-48A-66A	B48 SCC only	
4CC#228	[2A]-[48A]-[48A]-[66A]	B48 SCC only	
4CC#229	[2A]-[48A]-[48A]-66A	B48 SCC only	
4CC#230	[2A]-[48A]-[48A]-[66A]	B48 SCC only	
4CC#231	2A-48A-[48C]	B48 SCC only	5CC#171
4CC#232	2A-[48A]-48C	B48 SCC only	5CC#172
4CC#233	2A-[48A]-[48C]	B48 SCC only	5CC#174
4CC#234	[2A]-48A-48C	B48 SCC only	5CC#177
4CC#235	[2A]-48A-[48C]	B48 SCC only	5CC#178
4CC#236	[2A]-[48A]-48C	B48 SCC only	5CC#180
4CC#237	[2A]-[48A]-[48C]	B48 SCC only	5CC#182
4CC#238	2A-48A-[66A]-66A	B48 SCC only	5CC#111
4CC#239	2A-48A-[66A]-[66A]	B48 SCC only	5CC#112
4CC#240	2A-[48A]-66A-66A	B48 SCC only	5CC#113
4CC#241	2A-[48A]-[66A]-66A	B48 SCC only	5CC#114
4CC#242	2A-[48A]-[66A]-[66A]	B48 SCC only	5CC#115
4CC#243	[2A]-48A-66A-66A	B48 SCC only	5CC#116
4CC#244	[2A]-48A-[66A]-66A	B48 SCC only	5CC#117
4CC#245	[2A]-48A-[66A]-[66A]	B48 SCC only	5CC#118
4CC#246	[2A]-[48A]-66A-66A	B48 SCC only	5CC#119
4CC#247	[2A]-[48A]-[66A]-66A	B48 SCC only	5CC#120
4CC#248	[2A]-[48A]-[66A]-[66A]	B48 SCC only	5CC#121
4CC#249	2A-48C-[66A]	B48 SCC only	5CC#122
4CC#250	2A-[48C]-66A	B48 SCC only	5CC#123
4CC#251	2A-[48C]-[66A]	B48 SCC only	5CC#124
4CC#252	[2A]-48C-66A	B48 SCC only	5CC#125
4CC#253	[2A]-48C-[66A]	B48 SCC only	5CC#126
4CC#254	[2A]-[48C]-66A	B48 SCC only	5CC#127
4CC#255	[2A]-[48C]-[66A]	B48 SCC only	5CC#128
4CC#256	2A-[48D]	B48 SCC only	5CC#129
4CC#257	[2A]-48D	B48 SCC only	5CC#130
4CC#258	[2A]-[48D]	B48 SCC only	5CC#131
4CC#259	2A-[66A]-66A-71A		
4CC#260	2A-[66A]-[66A]-71A		
4CC#261	[2A]-66A-66A-71A		
4CC#262	[2A]-[66A]-66A-71A		
4CC#263	[2A]-[66A]-[66A]-71A		
4CC#264	2C-[66A]-66A		
4CC#265	2C-[66A]-[66A]		
4CC#266	[2C]-66A-66A		
4CC#267	[2C]-[66A]-66A		
4CC#268	[2C]-[66A]-[66A]		
4CC#269	2A-[66C]-71A		
4CC#270	[2A]-66C-71A		
4CC#271	[2A]-[66C]-71A		
4CC#272	[4A]-4A-12B		
4CC#273	[4A]-[4A]-12B		
4CC#274	4A-[48D]	B48 SCC only	
4CC#275	[4A]-48D	B48 SCC only	

Index	5CC	Restriction	Completely Covered by Measurement Superset
5CC#136	2A-12A-[30A]-[66A]-[66A]		
5CC#137	[2A]-12A-30A-66A-66A		
5CC#138	[2A]-12A-30A-[66A]-66A		
5CC#139	[2A]-12A-30A-[66A]-[66A]		
5CC#140	[2A]-12A-[30A]-66A-66A		
5CC#141	[2A]-12A-[30A]-[66A]-66A		
5CC#142	[2A]-12A-[30A]-[66A]-[66A]		
5CC#143	2A-12B-[66A]-66A		
5CC#144	2A-12B-[66A]-[66A]		
5CC#145	[2A]-12B-66A-66A		
5CC#146	[2A]-12B-[66A]-66A		
5CC#147	[2A]-12B-[66A]-[66A]		
5CC#148	2A-13A-48C-[66A]	B48 SCC only	
5CC#149	2A-13A-[48C]-66A	B48 SCC only	
5CC#150	2A-13A-[48C]-[66A]	B48 SCC only	
5CC#151	[2A]-13A-48C-66A	B48 SCC only	
5CC#152	[2A]-13A-48C-[66A]	B48 SCC only	
5CC#153	[2A]-13A-[48C]-66A	B48 SCC only	
5CC#154	[2A]-13A-[48C]-[66A]	B48 SCC only	
5CC#155	2A-13A-[48D]	B48 SCC only	
5CC#156	[2A]-13A-48D	B48 SCC only	
5CC#157	[2A]-13A-[48D]	B48 SCC only	
5CC#158	2A-14A-30A-[66A]-66A		
5CC#159	2A-14A-30A-[66A]-[66A]		
5CC#160	2A-14A-[30A]-66A-66A		
5CC#161	2A-14A-[30A]-[66A]-66A		
5CC#162	2A-14A-[30A]-[66A]-[66A]		
5CC#163	[2A]-14A-30A-66A-66A		
5CC#164	[2A]-14A-30A-[66A]-66A		
5CC#165	[2A]-14A-30A-[66A]-[66A]		
5CC#166	[2A]-14A-[30A]-66A-66A		
5CC#167	[2A]-14A-[30A]-[66A]-66A		
5CC#168	[2A]-14A-[30A]-[66A]-[66A]		
5CC#169	2A-48A-48C-[66A]	B48 SCC only	
5CC#170	2A-48A-[48C]-66A	B48 SCC only	
5CC#171	2A-48A-[48C]-[66A]	B48 SCC only	
5CC#172	2A-[48A]-48C-66A	B48 SCC only	
5CC#173	2A-[48A]-48C-[66A]	B48 SCC only	
5CC#174	2A-[48A]-[48C]-66A	B48 SCC only	
5CC#175	2A-[48A]-[48C]-[66A]	B48 SCC only	
5CC#176	[2A]-48A-48C-66A	B48 SCC only	
5CC#177	[2A]-48A-48C-[66A]	B48 SCC only	
5CC#178	[2A]-48A-[48C]-66A	B48 SCC only	
5CC#179	[2A]-48A-[48C]-[66A]	B48 SCC only	
5CC#180	[2A]-[48A]-48C-66A	B48 SCC only	
5CC#181	[2A]-[48A]-48C-[66A]	B48 SCC only	
5CC#182	[2A]-[48A]-[48C]-66A	B48 SCC only	
5CC#183	[2A]-[48A]-[48C]-[66A]	B48 SCC only	
5CC#184	2A-[48C]-48C	B48 SCC only	
5CC#185	2A-[48C]-[48C]	B48 SCC only	

Index	6CC	Restriction	Completely Covered by Measurement Superset
6CC#1	2A-5A-48C-[66A]-66A	48C SCC only	
6CC#2	2A-5A-48C-[66A]-[66A]	48C SCC only	
6CC#3	2A-5A-[48C]-66A-66A	48C SCC only	
6CC#4	2A-5A-[48C]-[66A]-66A	48C SCC only	
6CC#5	2A-5A-[48C]-[66A]-[66A]	48C SCC only	
6CC#6	[2A]-5A-48C-66A-66A	48C SCC only	
6CC#7	[2A]-5A-48C-[66A]-66A	48C SCC only	
6CC#8	[2A]-5A-48C-[66A]-[66A]	48C SCC only	
6CC#9	[2A]-5A-[48C]-66A-66A	48C SCC only	
6CC#10	[2A]-5A-[48C]-[66A]-66A	48C SCC only	
6CC#11	2A-48E-[66A]	48E SCC only	
6CC#12	2A-[48E]-66A	48E SCC only	
6CC#13	[2A]-48E-66A	48E SCC only	
6CC#14	[2A]-48E-[66A]	48E SCC only	
6CC#15	5A-48D-[66A]-66A	48D SCC only	
6CC#16	5A-48D-[66A]-[66A]	48D SCC only	
6CC#17	5A-[48D]-66A-66A	48D SCC only	
6CC#18	5A-[48D]-[66A]-66A	48D SCC only	

Note:

Only yellow highlight cells need power measurement according to LTE DL CA SAR test Exclusion in TCB workshop (April.2018).

LTE Release 10 Carrier Aggregation with 4x4 MIMO (Continued)

Index	4CC	Restriction	Completely Covered by Measurement Superset	Index	5CC	Restriction	Completely Covered by Measurement Superset
4CC#276	[4A]-[48D]	B48 SCC only		5CC#186	[2A]-48C-48C	B48 SCC only	
4CC#277	5A-30A-[66A]-66A		5CC#100	5CC#187	[2A]-[48C]-48C	B48 SCC only	
4CC#278	5A-30A-[66A]-[66A]		5CC#101	5CC#188	[2A]-[48C]-[48C]	B48 SCC only	
4CC#279	5A-[30A]-66A-66A		5CC#102	5CC#189	2A-48C-[66A]-66A	B48 SCC only	6CC#1
4CC#280	5A-[30A]-[66A]-66A		5CC#103	5CC#190	2A-48C-[66A]-[66A]	B48 SCC only	6CC#2
4CC#281	5A-[30A]-[66A]-[66A]		5CC#104	5CC#191	2A-[48C]-66A-66A	B48 SCC only	6CC#3
4CC#282	5A-48A-[66A]-66A	B48 SCC only	5CC#111	5CC#192	2A-[48C]-[66A]-66A	B48 SCC only	6CC#4
4CC#283	5A-48A-[66A]-[66A]	B48 SCC only	5CC#112	5CC#193	2A-[48C]-[66A]-[66A]	B48 SCC only	6CC#5
4CC#284	5A-[48A]-66A-66A	B48 SCC only	5CC#113	5CC#194	[2A]-48C-66A-66A	B48 SCC only	6CC#6
4CC#285	5A-[48A]-[66A]-66A	B48 SCC only	5CC#114	5CC#195	[2A]-48C-[66A]-66A	B48 SCC only	6CC#7
4CC#286	5A-[48A]-[66A]-[66A]	B48 SCC only	5CC#115	5CC#196	[2A]-48C-[66A]-[66A]	B48 SCC only	6CC#8
4CC#287	5A-48C-[66A]	B48 SCC only	5CC#122	5CC#197	[2A]-[48C]-66A-66A	B48 SCC only	6CC#9
4CC#288	5A-[48C]-66A	B48 SCC only	5CC#123	5CC#198	[2A]-[48C]-[66A]-66A	B48 SCC only	6CC#10
4CC#289	5A-[48C]-[66A]	B48 SCC only	5CC#124	5CC#199	[2A]-[48C]-[66A]-[66A]	B48 SCC only	
4CC#290	5A-[48D]	B48 SCC only	5CC#129	5CC#200	2A-48D-[66A]	B48 SCC only	
4CC#291	12A-30A-[66A]-66A		5CC#132	5CC#201	2A-[48D]-66A	B48 SCC only	
4CC#292	12A-30A-[66A]-[66A]		5CC#133	5CC#202	2A-[48D]-[66A]	B48 SCC only	
4CC#293	12A-[30A]-66A-66A		5CC#134	5CC#203	[2A]-48D-66A	B48 SCC only	
4CC#294	12A-[30A]-[66A]-66A		5CC#135	5CC#204	[2A]-48D-[66A]	B48 SCC only	
4CC#295	12A-[30A]-[66A]-[66A]		5CC#136	5CC#205	[2A]-[48D]-66A	B48 SCC only	
4CC#296	12B-[66A]-66A		5CC#44	5CC#206	[2A]-[48D]-[66A]	B48 SCC only	
4CC#297	12B-[66A]-[66A]		5CC#45	5CC#207	2A-[48E]	B48 SCC only	6CC#12
4CC#298	13A-48A-[66B]	B48 SCC only		5CC#208	[2A]-48E	B48 SCC only	6CC#13
4CC#299	13A-[48A]-66B	B48 SCC only		5CC#209	[2A]-[48E]	B48 SCC only	
4CC#300	13A-[48A]-[66B]	B48 SCC only		5CC#210	4A-[48E]	B48 SCC only	
4CC#301	13A-48A-[66C]	B48 SCC only		5CC#211	[4A]-48E	B48 SCC only	
4CC#302	13A-[48A]-66C	B48 SCC only		5CC#212	[4A]-[48E]	B48 SCC only	
4CC#303	13A-[48A]-[66C]	B48 SCC only		5CC#213	5A-48C-[66A]-66A	B48 SCC only	6CC#1
4CC#304	13A-48C-[66A]	B48 SCC only	5CC#152	5CC#214	5A-48C-[66A]-[66A]	B48 SCC only	6CC#2
4CC#305	13A-[48C]-66A	B48 SCC only	5CC#153	5CC#215	5A-[48C]-66A-66A	B48 SCC only	6CC#3
4CC#306	13A-[48C]-[66A]	B48 SCC only	5CC#154	5CC#216	5A-[48C]-[66A]-66A	B48 SCC only	6CC#4
4CC#307	13A-[48D]	B48 SCC only	5CC#155	5CC#217	5A-[48C]-[66A]-[66A]	B48 SCC only	6CC#5
4CC#308	14A-30A-[66A]-66A		5CC#158	5CC#218	5A-48D-[66A]	B48 SCC only	6CC#16
4CC#309	14A-30A-[66A]-[66A]		5CC#159	5CC#219	5A-[48D]-66A	B48 SCC only	6CC#17
4CC#310	14A-[30A]-66A-66A		5CC#160	5CC#220	5A-[48D]-[66A]	B48 SCC only	6CC#18
4CC#311	14A-[30A]-[66A]-66A		5CC#161	5CC#221	13A-48D-[66A]	B48 SCC only	
4CC#312	14A-[30A]-[66A]-[66A]		5CC#162	5CC#222	13A-[48D]-66A	B48 SCC only	
4CC#313	25A-[41D]	B41 SCC only		5CC#223	13A-[48D]-[66A]	B48 SCC only	
4CC#314	[25A]-41D	B41 SCC only		5CC#224	13A-[48E]	B48 SCC only	
4CC#315	[25A]-[41D]	B41 SCC only		5CC#225	48C-48C-[66A]	B48 SCC only	
4CC#316	29A-30A-[66A]-66A	B29 SCC only		5CC#226	[48C]-48C-66A	B48 SCC only	
4CC#317	29A-30A-[66A]-[66A]	B29 SCC only		5CC#227	[48C]-48C-[66A]	B48 SCC only	
4CC#318	29A-[30A]-66A-66A	B29 SCC only		5CC#228	[48C]-[48C]-66A	B48 SCC only	
4CC#319	29A-[30A]-[66A]-66A	B29 SCC only		5CC#229	[48C]-[48C]-[66A]	B48 SCC only	
4CC#320	29A-[30A]-[66A]-[66A]	B29 SCC only		5CC#230	48A-48D-[66A]	B48 SCC only	
4CC#321	48A-48A-[66A]-66A	48A SCC only		5CC#231	48A-[48D]-66A	B48 SCC only	
4CC#322	48A-48A-[66A]-[66A]	48A SCC only		5CC#232	48A-[48D]-[66A]	B48 SCC only	
4CC#323	[48A]-48A-66A-66A	48A SCC only		5CC#233	[48A]-48D-66A	B48 SCC only	
4CC#324	[48A]-48A-[66A]-66A	48A SCC only		5CC#234	[48A]-48D-[66A]	B48 SCC only	
4CC#325	[48A]-48A-[66A]-[66A]	48A SCC only		5CC#235	[48A]-[48D]-66A	B48 SCC only	
4CC#326	[48A]-[48A]-66A-66A	48A SCC only		5CC#236	[48A]-[48D]-[66A]	B48 SCC only	
4CC#327	[48A]-[48A]-[66A]-66A	48A SCC only		5CC#237	48A-[48E]		

Note: Only yellow highlight cells need power measurement according to LTE DL CA SAR test Exclusion in TCB workshop (April.2018).

LTE Release 10 Carrier Aggregation with 4x4 MIMO (Continued)

Index	4CC	Restriction	Completely Covered by Measurement Superset
4CC#328	[48A]-[48A]-[66A]-[66A]	48A SCC only	
4CC#329	48A-48C-[66A]	B48 SCC only	5CC#169
4CC#330	48A-[48C]-66A	B48 SCC only	5CC#170
4CC#331	48A-[48C]-[66A]	B48 SCC only	5CC#171
4CC#332	[48A]-48C-66A	B48 SCC only	5CC#172
4CC#333	[48A]-48C-[66A]	B48 SCC only	5CC#173
4CC#334	[48A]-[48C]-66A	B48 SCC only	5CC#174
4CC#335	[48A]-[48C]-[66A]	B48 SCC only	5CC#175
4CC#336	48A-[48D]		
4CC#337	[48A]-48D		
4CC#338	[48A]-[48D]		
4CC#339	[48C]-48C		
4CC#340	[48C]-[48C]		
4CC#341	48C-[66A]-66A	B48 SCC only	5CC#189
4CC#342	48C-[66A]-[66A]	B48 SCC only	5CC#190
4CC#343	[48C]-66A-66A	B48 SCC only	5CC#191
4CC#344	[48C]-[66A]-66A	B48 SCC only	5CC#192
4CC#345	[48C]-[66A]-[66A]	B48 SCC only	5CC#193
4CC#346	48C-[66B]	B48 SCC only	
4CC#347	[48C]-66B	B48 SCC only	
4CC#348	[48C]-[66B]	B48 SCC only	
4CC#349	48C-[66C]	B48 SCC only	
4CC#350	[48C]-66C	B48 SCC only	
4CC#351	[48C]-[66C]	B48 SCC only	
4CC#352	48D-[66A]	B48 SCC only	5CC#230
4CC#353	[48D]-66A	B48 SCC only	5CC#231
4CC#354	[48D]-[66A]	B48 SCC only	5CC#232
4CC#355	[48E]		5CC#237

Index	5CC	Restriction	Completely Covered by Measurement Superset
5CC#238	[48A]-48E		
5CC#239	[48A]-[48E]		
5CC#240	48C-[48D]		
5CC#241	[48C]-48D		
5CC#242	[48C]-[48D]		
5CC#243	48E-[66A]	B48 SCC only	6CC#14
5CC#244	[48E]-66A	B48 SCC only	6CC#12
5CC#245	[48E]-[66A]	B48 SCC only	

Note:

Only yellow highlight cells need power measurement according to LTE DL CA SAR test Exclusion in TCB workshop (April.2018).

Single Carrier Downlink 4x4 MIMO output power results

LTE Bands	Modulation	BW (MHz)	Channel	Freq. (MHz)	RB/Offset	LTE Rel 8 Tx. Power [dBm]	DL 4x4 MIMO Tx. Power [dBm]	Delta
2	QPSK	20	18700	1860	1/0	23.9	23.8	-0.07
4	QPSK	20	20175	1732.5	1/0	23.9	23.8	-0.09
25	QPSK	20	26590	1905	1/0	23.8	23.6	-0.15
30	QPSK	10	27710	2310	1/25	22.8	22.7	-0.09
48	QPSK	20	55340	3560	1/0	22.7	22.6	-0.14
66	QPSK	20	132322	1745	1/0	24.1	24.1	-0.03

Note: According to LTE Test Conditions in TCB workshop (May, 2017), SAR is excluded for LTE downlink 4x4 MIMO operation when uplink output with DL MIMO does not exceed highest uplink output power configuration without DL MIMO by more than 1/4 dB. And for DL MIMO with carrier aggregation, the same SAR test exclusion procedure is considered.

DL CA with 4x4 MIMO output power results

E-UTRA CA configuration (BCS)	Bands						UL						DL						LTE Rel 8 Tx Power [dBm]	LTE Rel 10 Tx Power [dBm]	Delta															
	PCG	SCG1	SCG2	SCG3	SCG4	SCG5	Band	Mode	BW [MHz]	Freq. [MHz]	RB Channel	RB Allocation	RB offset	Band	BW [MHz]	Channel	Freq. [MHz]	Band				BW [MHz]	Channel	Freq. [MHz]	Band	BW [MHz]	Channel	Freq. [MHz]	Band	BW [MHz]	Channel	Freq. [MHz]	Band	BW [MHz]	Channel	Freq. [MHz]
	1st	2nd	3rd	4th	5th	6th																														
4A(4A)	4A	(4A)					4	QPSK	20	20175	1732.5	1	0	4	20	2175	2132.5	48	20	900	1960	2	20	2248	2139.8	2	20	900	1960	2	20	2248	2139.8	23.85	23.85	-0.05
[4A]4BA	[4A]	[4BA]					4	QPSK	20	20175	1732.5	1	0	4	20	2175	2132.5	48	20	900	1960	2	20	2248	2139.8	2	20	900	1960	2	20	2248	2139.8	23.85	23.8	-0.05
[4A]4BA	[4A]	[4BA]					4	QPSK	20	20175	1732.5	1	0	4	20	2175	2132.5	48	20	900	1960	2	20	2248	2139.8	2	20	900	1960	2	20	2248	2139.8	23.85	23.8	-0.05
5A(2SA)	(2SA)						5	QPSK	20	20525	836.5	1	0	5	10	2525	881.5	5	10	2525	881.5	5	10	2525	881.5	5	10	2525	881.5	5	10	2525	881.5	23.76	23.61	-0.15
5A(4TA)	(4TA)						5	QPSK	20	20525	836.5	1	0	5	10	2525	881.5	5	10	2525	881.5	5	10	2525	881.5	5	10	2525	881.5	5	10	2525	881.5	24.15	24.1	-0.05
12A(2SA)	(2SA)						12	QPSK	20	23055	707.5	1	0	12	10	5095	737.5	2	20	900	1960	2	20	2248	2139.8	2	20	900	1960	2	20	2248	2139.8	23.76	23.67	-0.09
12A(4SA)	(4SA)						12	QPSK	20	23055	707.5	1	0	12	10	5095	737.5	2	20	900	1960	2	20	2248	2139.8	2	20	900	1960	2	20	2248	2139.8	23.76	23.71	-0.05
[2SA]2SA	[2SA]	[2SA]					25	QPSK	20	26590	1905	1	0	25	20	8590	1985	41	20	40620	2593	41	20	40620	2593	41	20	40620	2593	41	20	40620	2593	23.73	23.72	-0.01
[2SA]2SA	[2SA]	[2SA]					25	QPSK	20	26590	1905	1	0	25	20	8590	1985	41	20	40620	2593	41	20	40620	2593	41	20	40620	2593	41	20	40620	2593	23.73	23.67	-0.06
[2SA]2SA	[2SA]	[2SA]					25	QPSK	20	26590	1905	1	0	25	20	8590	1985	41	20	40620	2593	41	20	40620	2593	41	20	40620	2593	41	20	40620	2593	23.73	23.67	-0.06
[2SA]4TA	[2SA]	[4TA]					25	QPSK	20	26590	1905	1	0	25	20	8590	1985	41	20	40620	2593	41	20	40620	2593	41	20	40620	2593	41	20	40620	2593	23.73	23.67	-0.06
[2SA]4TA	[2SA]	[4TA]					25	QPSK	20	26590	1905	1	0	25	20	8590	1985	41	20	40620	2593	41	20	40620	2593	41	20	40620	2593	41	20	40620	2593	23.73	23.67	-0.06
[41A]41A	[41A]	[41A]					41	QPSK	20	40620	2593	1	0	41	20	40620	2593	41	20	41490	2690	41	20	41490	2690	41	20	41490	2690	41	20	41490	2690	24.55	24.52	-0.03
[41A]41A	[41A]	[41A]					41	QPSK	20	40620	2593	1	0	41	20	40620	2593	41	20	41490	2690	41	20	41490	2690	41	20	41490	2690	41	20	41490	2690	24.55	24.41	-0.14
[4B]4B	[4B]						48	QPSK	15	55215	3547.5	1	37	48	15	55215	3547.5	48	5	55208	3558.8	48	5	55208	3558.8	48	5	55208	3558.8	48	5	55208	3558.8	23.85	23.84	-0.01
[4A]4A	[4A]	[4A]					2	QPSK	20	18900	1890	1	0	2	20	900	1960	4	20	2175	2132.5	13	10	5230	751	2	20	900	1960	2	20	2248	2139.8	23.86	23.82	-0.04
2A(4A)-13A	[4A]	[2A]	[13A]				2	QPSK	20	20175	1732.5	1	0	2	20	2175	2132.5	48	20	900	1960	2	20	2248	2139.8	2	20	900	1960	2	20	2248	2139.8	23.85	23.74	-0.11
2A(4A)-13A	[4A]	[2A]	[13A]				13	QPSK	10	23230	782	1	25	13	10	5230	751	2	20	900	1960	2	20	2175	2132.5	13	10	5230	751	2	20	2248	2139.8	23.85	24.26	0.41
2A(4A)-13A	[4A]	[2A]	[13A]				2	QPSK	20	18900	1890	1	0	2	20	900	1960	4	20	2175	2132.5	13	10	5230	751	2	20	900	1960	2	20	2248	2139.8	23.86	23.82	-0.04
2A(4A)-13A	[4A]	[2A]	[13A]				2	QPSK	20	20175	1732.5	1	0	4	20	2175	2132.5	48	20	900	1960	2	20	2175	2132.5	13	10	5230	751	2	20	2248	2139.8	23.85	24.02	0.17
2A(4A)-13A	[4A]	[2A]	[13A]				2	QPSK	20	18900	1890	1	0	2	20	900	1960	4	20	2175	2132.5	13	10	5230	751	2	20	900	1960	2	20	2248	2139.8	23.86	23.81	-0.05
2A(4A)-13A	[4A]	[2A]	[13A]				13	QPSK	10	23230	782	1	25	13	10	5230	751	2	20	900	1960	2	20	2175	2132.5	13	10	5230	751	2	20	2248	2139.8	24.07	23.99	-0.08
4A(4A)-13A	[4A]	[4A]	[13A]				4	QPSK	20	20050	1720	1	0	4	20	2050	2120	4	20	2248	2139.8	13	10	5230	751	2	20	900	1960	2	20	2248	2139.8	23.81	23.79	-0.02
4A(4A)-13A	[4A]	[4A]	[13A]				13	QPSK	10	23230	782	1	25	13	10	5230	751	4	20	2050	2120	4	20	2248	2139.8	2	20	900	1960	2	20	2248	2139.8	24.07	23.92	-0.15
4A(4A)-13A	[4A]	[4A]	[13A]				13	QPSK	10	23230	782	1	25	13	10	5230	751	4	20	2050	2120	4	20	2248	2139.8	2	20	900	1960	2	20	2248	2139.8	23.81	23.86	0.05
4A(4A)-71A	[4A]	[4A]	[71A]				4	QPSK	20	20050	1720	1	0	4	20	2050	2120	4	20	2248	2139.8	71	20	88761	634.5	4	20	900	1960	2	20	2248	2139.8	23.81	24.03	0.22
4A(4A)-71A	[4A]	[4A]	[71A]				71	QPSK	20	20050	1720	1	0	71	20	2050	2120	4	20	2248	2139.8	71	20	88761	634.5	4	20	900	1960	2	20	2248	2139.8	23.81	24.03	0.22
4A(4A)-71A	[4A]	[4A]	[71A]				4	QPSK	20	20050	1720	1	0	4	20	2050	2120	4	20	2248	2139.8	71	20	88761	634.5	4	20	900	1960	2	20	2248	2139.8	23.81	23.67	-0.14
4A(4A)-71A	[4A]	[4A]	[71A]				71	QPSK	20	133297	680.5	1	49	71	20	88761	634.5	48	20	2050	2120	4	20	2248	2139.8	2	20	900	1960	2	20	2248	2139.8	24.32	24.32	0
4A(4A)-71A	[4A]	[4A]	[71A]				4	QPSK	20	20050	1720	1	0	4	20	2050	2120	4	20	2248	2139.8	71	20	88761	634.5	4	20	900	1960	2	20	2248	2139.8	23.81	23.67	-0.14
4A(4A)-71A	[4A]	[4A]	[71A]				71	QPSK	20	133297	680.5	1	49	71	20	88761	634.5	48	20	2050	2120	4	20	2248	2139.8	2	20	900	1960	2	20	2248	2139.8	24.32	24.32	0
4A(4B)	[4A]	[4B]					4	QPSK	20	20175	1732.5	1	0	4	20	2175	2132.5	48	20	900	1960	2	20	2248	2139.8	2	20	900	1960	2	20	2248	2139.8	23.85	23.81	-0.04
4A(4B)	[4A]	[4B]					4	QPSK	20	20175	1732.5	1	0	4	20	2175	2132.5	48	20	900	1960	2	20	2248	2139.8	2	20	900	1960	2	20	2248	2139.8	23.85	23.78	-0.07
4A(4B)	[4A]	[4B]					4	QPSK	20	20175	1732.5	1	0	4	20	2175	2132.5	48	20	900	1960	2	20	2248	2139.8	2	20	900	1960	2	20	2248	2139.8	23.85	23.78	-0.07
4A(4B)	[4A]	[4B]					13	QPSK	10	23230	782	1	25	13	10	5230	751	48	15	55315	3557.5	48	5	55408	3566.8	48	5	55408	3566.8	48	5	55408	3566.8	24.07	24.05	-0.02
[2SA]41C	[2SA]	[41C]					25	QPSK																												

DL CA with 4x4 MIMO output power results (Continued)

Table with columns for E-UTRA CA configuration (BCS), Bands (PCC, SCC1, SCC2, SCC3, SCC4, SCC5), UL (Band, Mode, BW, Freq, RB Allocation, RB offset), DL (PCC, SCC1, SCC2, SCC3, SCC4, SCC5), and LTE Rel 8 Tx Power (dBm), LTE Rel 10 Tx Power (dBm), Delta. The table contains multiple rows of test configurations and their corresponding power results.

Note:
1. Per KDB 941225 D05A LTE Rel. 10 KDB Inquiry Sheet: SAR is excluded for Carrier Aggregation when measured power does not exceed LTE Release 8 by more than a 1/4 dB.
2. When the same frequency band is used for both contiguous and non-contiguous in DL CA Intra band, power was measured using the configuration with the largest aggregated bandwidth and maximum output power among the contiguous and non-contiguous in DL CA Intra band configurations.

DL CA with 4x4 MIMO output power results (Continued)

Table with columns for E-UTRA CA configuration (Bands), UL (PCC, SCC1, SCC2, SCC3, SCC4, SCC5), DL (PCC, SCC1, SCC2, SCC3, SCC4, SCC5), and LTE Rel 8 Tx Power (dBm), LTE Rel 10 Tx Power (dBm), and Delta. Rows include configurations like 2A-13A, 2A-13A-66B, 2A-13A-66C, etc.

Note:
1. Per KDB 941225 D05A LTE Rel. 10 KDB Inquiry Sheet: SAR is excluded for Carrier Aggregation when measured power does not exceed LTE Release 8 by more than a 1/4 dB.
2. When the same frequency band is used for both contiguous and non-contiguous in DL CA Intra band, power was measured using the configuration with the largest aggregated bandwidth and maximum output power among the contiguous and non-contiguous in DL CA Intra band configurations.

DL CA with 4x4 MIMO output power results (Continued)

Table with columns for E-UTRA CA configuration (Bands), UL (PCC, SCC1, SCC2, SCC3, SCC4, SCC5), DL (SCC1, SCC2, SCC3, SCC4, SCC5), and LTE Rel 8 Tx Power, LTE Rel 10 Tx Power, Delta. The table contains multiple rows of configuration data for various carrier aggregation scenarios.

Note:
1. Per KDB 941225 D05A LTE Rel. 10 KDB Inquiry Sheet: SAR is excluded for Carrier Aggregation when measured power does not exceed LTE Release 8 by more than a 1/4 dB.
2. When the same frequency band is used for both contiguous and non-contiguous in DL CA Intra band, power was measured using the configuration with the largest aggregated bandwidth and maximum output power among the contiguous and non-contiguous in DL CA Intra band configurations.

DL CA with 4x4 MIMO output power results (Continued)

E-UTRA CA configuration (BSCs)	Bands						UL						DL						LTE Rel 8 Tx Power [dBm]	LTE Rel 10 Tx Power [dBm]	Delta																							
	PC2	SC1	SC2	SC3	SC4	SC5	Band	Mode	BW [MHz]	PCC Channel	Freq. [MHz]	RB Allocation	RB offset	Band	BW [MHz]	Channel	Freq. [MHz]	Band				BW [MHz]	Channel	Freq. [MHz]	Band	BW [MHz]	Channel	Freq. [MHz]	Band	BW [MHz]	Channel	Freq. [MHz]												
	1st	2nd	3rd	4th	5th	6th																											SC1	SC2	SC3	SC4	SC5							
2A-2A-12A-[66A]-[66A]	2A	2A	12A	[66A]	[66A]		2	QPSK	20	18900	1890	1	0	2	20	900	1990	2	20	1100	1990	12	10	5995	737.5	66	20	6596	2120	66	20	6706	2170	23.96	23.78	-0.08								
	12A	2A	2A	[66A]	[66A]		12	QPSK	10	23095	707.5	1	25	12	10	5095	737.5	2	20	900	1990	2	20	1100	1990	12	10	5995	737.5	66	20	6596	2120	66	20	6706	2170	23.96	23.78	-0.08				
	[66A]	[66A]	2A	2A	12A		66	QPSK	20	132322	1745	1	0	66	20	66786	2145	66	20	67036	2170	2	20	900	1990	2	20	1100	1990	12	10	5995	737.5	66	20	6596	2120	66	20	6706	2170	24.11	24.07	-0.04
	2A	2A	12A	[66A]	[66A]		2	QPSK	20	18900	1890	1	0	2	20	900	1990	2	20	1100	1990	12	10	5995	737.5	66	20	6596	2120	66	20	6706	2170	23.96	23.78	-0.08								
	12A	2A	2A	[66A]	[66A]		12	QPSK	10	23095	707.5	1	25	12	10	5095	737.5	2	20	900	1990	2	20	1100	1990	12	10	5995	737.5	66	20	6596	2120	66	20	6706	2170	24.29	24.19	-0.1				
	[66A]	[66A]	2A	2A	12A		66	QPSK	20	132322	1745	1	0	66	20	66786	2145	66	20	67036	2170	2	20	900	1990	2	20	1100	1990	12	10	5995	737.5	66	20	6596	2120	66	20	6706	2170	24.05	23.95	-0.1
	2A	2A	12A	[66A]	[66A]		2	QPSK	20	18900	1890	1	0	2	20	900	1990	2	20	1100	1990	12	10	5995	737.5	66	20	6596	2120	66	20	6706	2170	23.96	23.78	-0.08								
	12A	2A	2A	[66A]	[66A]		12	QPSK	10	23095	707.5	1	25	12	10	5095	737.5	2	20	900	1990	2	20	1100	1990	12	10	5995	737.5	66	20	6596	2120	66	20	6706	2170	24.29	24.19	-0.1				
	[66A]	[66A]	2A	2A	12A		66	QPSK	20	132322	1745	1	0	66	20	66786	2145	66	20	67036	2170	2	20	900	1990	2	20	1100	1990	12	10	5995	737.5	66	20	6596	2120	66	20	6706	2170	24.05	23.95	-0.1
	2A	2A	12A	[66A]	[66A]		2	QPSK	20	18900	1890	1	0	2	20	900	1990	2	20	1100	1990	12	10	5995	737.5	66	20	6596	2120	66	20	6706	2170	23.96	23.78	-0.08								
	12A	2A	2A	[66A]	[66A]		12	QPSK	10	23095	707.5	1	25	12	10	5095	737.5	2	20	900	1990	2	20	1100	1990	12	10	5995	737.5	66	20	6596	2120	66	20	6706	2170	24.29	24.19	-0.1				
	[66A]	[66A]	2A	2A	12A		66	QPSK	20	132322	1745	1	0	66	20	66786	2145	66	20	67036	2170	2	20	900	1990	2	20	1100	1990	12	10	5995	737.5	66	20	6596	2120	66	20	6706	2170	24.05	23.95	-0.1

Note:

- Per KDB 941225 D05A LTE Rel. 10 KDB Inquiry Sheet: SAR is excluded for Carrier Aggregation when measured power does not exceed LTE Release 8 by more than a 1/4 dB.
- When the same frequency band is used for both contiguous and non-contiguous in DL CA Intra band, power was measured using the configuration with the largest aggregated bandwidth and maximum output power among the contiguous and non-contiguous in DL CA Intra band configurations.

