

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	Yes			
	(1)	Band 2			Yes				20
		Band 13			Yes				
(2)	Band 2			Yes	Yes	Yes	Yes	20	
	Band 13			Yes	Yes				
2A-29A	(0)	Band 2			Yes	Yes			20
		Band 29		Yes	Yes	Yes	Yes	Yes	
(2)	Band 2			Yes	Yes			30	
	Band 29			Yes	Yes				
2A-30A	(0)	Band 2			Yes	Yes	Yes	Yes	30
		Band 30			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				
	Band 4			Yes	Yes			20	
4A-5A	(0)	Band 4			Yes	Yes			20
		Band 5			Yes	Yes			
		Band 4	Yes	Yes	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			
	(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					
4A-13A	(0)	Band 4			Yes	Yes	Yes	Yes	30
		Band 13			Yes				
	(1)	Band 4			Yes	Yes			20
Band 13			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 2	2A-2A BCS 0						50
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 2			Yes	Yes	Yes	Yes	50
		Band 4			Yes	Yes	Yes	Yes	
		Band 5			Yes	Yes			
2A-4A-12A	(0)	Band 2			Yes	Yes	Yes	Yes	50
		Band 12			Yes	Yes			
2A-4A-71A	(0)	Band 2			Yes	Yes	Yes	Yes	60
		Band 4			Yes	Yes	Yes	Yes	
		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-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-66A	(0)	Band 2			Yes	Yes	Yes	Yes	50
		Band 13			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			
2A-30A-66A	(0)	Band 2			Yes	Yes	Yes	Yes	50
		Band 30			Yes	Yes			
2A-66A-66A	(0)	Band 2			Yes	Yes	Yes	Yes	60
		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			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	
		Band 5			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	
		Band 71			Yes	Yes	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-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				
2A-2A-13A-66A	(0)	Band 2	2A-2A BCS 0						70
		Band 13			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 2			Yes	Yes	Yes	Yes	80
		Band 66			Yes	Yes	Yes	Yes	
		Band 71			Yes	Yes	Yes	Yes	
2A-2A-66C	(0)	Band 2	2A-2A BCS 0						80
		Band 66			66C BCS 0				
2A-4A-4A-5A	(0)	Band 2	4A-4A BCS 0						70
		Band 4			Yes	Yes			
		Band 5			Yes	Yes			
2A-4A-4A-12A	(0)	Band 2	4A-4A BCS 0						70
		Band 4			Yes	Yes	Yes	Yes	
		Band 12			Yes	Yes			
2A-4A-12B	(0)	Band 2	4A-4A BCS 0						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-66A-66A	(0)	Band 2			Yes	Yes	Yes	Yes	70
		Band 5			Yes	Yes			
		Band 66			66A-66A BCS 0				
2A-5A-66C	(0)	Band 2			Yes	Yes	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			Yes	Yes	Yes	Yes	
		Band 12			Yes	Yes			
2A-12A-66C	(0)	Band 2			Yes	Yes	Yes	Yes	70
		Band 12			Yes	Yes			
		Band 66			66C BCS 0				

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-71A	(0)	Band 4			Yes	Yes	Yes	Yes	40
		Band 71			Yes	Yes	Yes	Yes	
5A-30A	(0)	Band 5			Yes	Yes			20
		Band 30			Yes	Yes			
5A-66A	(0)	Band 5			Yes	Yes			30
		Band 66			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	Yes	Yes	
	(3)	Band 12			Yes	Yes			20
		Band 66			Yes	Yes			
	(4)	Band 12			Yes	Yes			30
		Band 66			Yes	Yes	Yes	Yes	
(5)	Band 12			Yes				20	
	Band 66			Yes	Yes	Yes			
13A-66A	(0)	Band 13			Yes	Yes			30
		Band 66			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	
66A-71A	(0)	Band 66			Yes	Yes	Yes	Yes	40
		Band 71			Yes	Yes	Yes	Yes	
2A-14A	(0)	Band 2			Yes	Yes			30
		Band 14			Yes	Yes			
2A-48A	(0)	Band 2			Yes	Yes	Yes	Yes	40
		Band 48			Yes	Yes	Yes	Yes	
4A-48A	(0)	Band 4			Yes	Yes	Yes	Yes	40
		Band 48			Yes	Yes	Yes	Yes	
5A-25A	(0)	Band 5			Yes	Yes			30
		Band 25			Yes	Yes	Yes	Yes	
5A-41A	(0)	Band 5			Yes	Yes			30
		Band 41						Yes	
5A-48A	(0)	Band 5			Yes	Yes			30
		Band 48			Yes	Yes	Yes	Yes	
12A-25A	(0)	Band 12			Yes	Yes			30
		Band 25			Yes	Yes	Yes	Yes	
13A-48A	(0)	Band 13			Yes	Yes			30
		Band 48			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	
48A-66A	(0)	Band 48			Yes	Yes	Yes	Yes	40
		Band 66			Yes	Yes	Yes	Yes	
48A-71A	(0)	Band 48			Yes	Yes	Yes	Yes	40
		Band 71			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-66C	(0)	Band 2			Yes	Yes	Yes	Yes	60
		Band 66			66C BCS 0				
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				
5A-30A-66A	(0)	Band 5			Yes	Yes			40
		Band 30			Yes	Yes			
5A-66A-66A	(0)	Band 5			Yes	Yes			50
		Band 66			66A-66A BCS 0				
5A-66C	(0)	Band 5			Yes	Yes			50
		Band 66			66C BCS 0				
12A-30A-66A	(0)	Band 12			Yes	Yes			40
		Band 30			Yes	Yes			
12A-66A-66A	(0)	Band 12			Yes	Yes	Yes	Yes	50
		Band 66			66A-66A BCS 0				
12A-66C	(0)	Band 12			Yes	Yes			50
		Band 66			66C BCS 0				
12B-66A	(0)	Band 12			12B BCS 0				35
		Band 66			Yes	Yes	Yes	Yes	
13A-66A-66A	(0)	Band 13			Yes	Yes			50
		Band 66			66A-66A BCS 0				
13A-66B	(0)	Band 13			Yes	Yes			30
		Band 66			66B BCS 0				
13A-66C	(0)	Band 13			Yes	Yes			50
		Band 66			66C BCS 0				
30A-66A-66A	(0)	Band 30			Yes	Yes			50
		Band 66			66A-66A BCS 0				
66A-66A-71A	(0)	Band 66			66A-66A BCS 0				60
		Band 71			Yes	Yes	Yes	Yes	
66C-71A	(0)	Band 66			66C BCS 0				60
		Band 71			Yes	Yes	Yes	Yes	
2A-2A-14A	(0)	Band 2			2A-2A BCS 0				50
		Band 14			Yes	Yes			
2A-2A-30A	(0)	Band 2			2A-2A BCS 0				50
		Band 30			Yes	Yes			
2A-4A-13A	(0)	Band 4			Yes	Yes	Yes	Yes	50
		Band 13				Yes			
2A-5A-48A	(0)	Band 2	Yes	Yes	Yes	Yes	Yes	Yes	50
		Band 5			Yes	Yes			
2A-13A-48A	(0)	Band 2			Yes	Yes	Yes	Yes	50
		Band 13			Yes	Yes			
2A-14A-30A	(0)	Band 2			Yes	Yes	Yes	Yes	40
		Band 14			Yes	Yes			
2A-14A-66A	(0)	Band 2			Yes	Yes	Yes	Yes	50
		Band 14			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-12B-66A	(0)	Band 2			12B BCS 0				55
		Band 12			12B BCS 0				
2A-13A-66A-66A	(0)	Band 13			Yes	Yes	Yes	Yes	70
		Band 66			66A-66A BCS 0				
2A-30A-66A-66A	(0)	Band 2			Yes	Yes	Yes	Yes	70
		Band 30			Yes	Yes			
2A-66A-66A-71A	(0)	Band 66			66A-66A BCS 0				80
		Band 71			Yes	Yes	Yes	Yes	
4A-4A-12B	(0)	Band 4			4A-4A BCS 0				55
		Band 12			12B BCS 0				
5A-30A-66A-66A	(0)	Band 5			Yes	Yes			60
		Band 30			Yes	Yes			
12A-30A-66A-66A	(0)	Band 12			Yes	Yes			60
		Band 30			Yes	Yes			
12B-66A-66A	(0)	Band 12			12B BCS 0				55
		Band 66			66A-66A BCS 0				
2A-2A-5A-30A	(0)	Band 2			2A-2A BCS 0				60
		Band 5			Yes	Yes			
2A-2A-12A-30A	(0)	Band 2			2A-2A BCS 0				60
		Band 12			Yes	Yes			
2A-2A-14A-30A	(0)	Band 2			2A-2A BCS 0				60
		Band 14			Yes	Yes			
2A-2A-14A-66A	(0)	Band 2			Yes	Yes	Yes	Yes	70
		Band 66			Yes	Yes	Yes	Yes	
2A-2A-29A-30A	(0)	Band 2			2A-2A BCS 0				60
		Band 29			Yes	Yes			
2A-2A-29A-66A	(0)	Band 2			2A-2A BCS 0				70
		Band 29			Yes	Yes			
2A-2A-30A-66A	(0)	Band 2			2A-2A BCS 0				70
		Band 30			Yes	Yes			
2A-2A-66B	(0)	Band 2			2A-2A BCS 0				60
		Band 66			66B BCS 0				
2A-5A-48A-66A	(0)	Band 4	Yes	Yes	Yes	Yes	Yes	Yes	70
		Band 48			Yes	Yes	Yes	Yes	
2A-5A-48C	(0)	Band 2	Yes	Yes	Yes	Yes	Yes	Yes	70
		Band 48			48C BCS 0				
2A-5A-66B	(0)	Band 2			Yes	Yes	Yes	Yes	50
		Band 5			Yes	Yes			
2A-13A-48A-66A	(0)	Band 2			66B BCS 0				70
		Band 13			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	
2A-48A-48A	(0)	Band 2			Yes	Yes	Yes	Yes	60
		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						
2C-66A	(0)	Band 2			66C BCS 0				60
		Band 66			Yes	Yes	Yes	Yes	
4A-48C	(0)	Band 4			Yes	Yes	Yes	Yes	60
		Band 48	48C BCS 0						
5A-48A-66A	(0)	Band 5			Yes	Yes			50
		Band 46			Yes	Yes	Yes	Yes	
		Band 66			Yes	Yes	Yes	Yes	
5A-48C	(0)	Band 5			Yes	Yes			50
		Band 48	48C BCS 0						
5A-66B	(0)	Band 5			Yes	Yes			30
		Band 66	66B BCS 0						
13A-48A-66A	(0)	Band 13			Yes	Yes			50
		Band 48			Yes	Yes	Yes	Yes	
		Band 66			Yes	Yes	Yes	Yes	
13A-48B	(0)	Band 13			Yes	Yes			30
		Band 48	48B BCS 0						
13A-48C	(0)	Band 13			Yes	Yes			50
		Band 48	48C BCS 0						
14A-30A-66A	(0)	Band 14			Yes	Yes			40
		Band 30			Yes	Yes			
		Band 66			Yes	Yes	Yes	Yes	
14A-66A-66A	(0)	Band 14			Yes	Yes			50
		Band 66	66A-66A BCS 0						
25A-41C	(0)	Band 25			Yes	Yes	Yes	Yes	60
		Band 41	41C BCS 1						
29A-30A-66A	(0)	Band 29			Yes	Yes			40
		Band 30			Yes	Yes			
		Band 66			Yes	Yes	Yes	Yes	
29A-66A-66A	(0)	Band 29			Yes	Yes			50
		Band 66	66A-66A BCS 0						
48A-48A-66A	(0)	Band 48			48A-48A BCS 0				60
		Band 66			Yes	Yes	Yes	Yes	
48A-48A-71A	(0)	Band 48			48A-48A BCS 0				60
		Band 71			Yes	Yes	Yes	Yes	
48A-66A-66A	(0)	Band 48			Yes	Yes	Yes	Yes	60
		Band 66	66A-66A BCS 0						
48A-66B	(0)	Band 48			Yes	Yes	Yes	Yes	40
		Band 66	66B BCS 0						
48A-66C	(0)	Band 48			Yes	Yes	Yes	Yes	60
		Band 66	66B BCS 0						
48B-66A	(0)	Band 48			48B BCS 0				40
		Band 66			Yes	Yes	Yes	Yes	
48C-66A	(0)	Band 48			48C BCS 0				60
		Band 66			Yes	Yes	Yes	Yes	
48C-71A	(0)	Band 48			48C BCS 0				60
		Band 71			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-13A-48C	(0)	Band 2			Yes	Yes	Yes	Yes	70
		Band 13			Yes	Yes			
		Band 48	48C 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 66			Yes	Yes	Yes	Yes	
2A-14A-66A-66A	(0)	Band 2			Yes	Yes	Yes	Yes	70
		Band 14			Yes	Yes			
		Band 66	66A-66A BCS 0						
2A-29A-30A-66A	(0)	Band 2			Yes	Yes	Yes	Yes	60
		Band 29			Yes	Yes			
		Band 66			Yes	Yes	Yes	Yes	
2A-29A-66A-66A	(0)	Band 2			Yes	Yes	Yes	Yes	70
		Band 29			Yes	Yes			
		Band 66	66A-66A BCS 0						
2A-48A-48A-66A	(0)	Band 2			Yes	Yes	Yes	Yes	80
		Band 48			48A-48A BCS 0				
		Band 66			Yes	Yes	Yes	Yes	
2A-48A-48C	(0)	Band 2			Yes	Yes	Yes	Yes	80
		Band 48	48A-48C BCS 0						
2A-48A-66A-66A	(0)	Band 2			Yes	Yes	Yes	Yes	80
		Band 48			Yes	Yes	Yes	Yes	
		Band 66	66A-66A BCS 0						
2A-48C-66A	(0)	Band 2			Yes	Yes	Yes	Yes	80
		Band 48			48C BCS 0				
		Band 66			Yes	Yes	Yes	Yes	
2A-48D	(0)	Band 2			48D BCS 0				80
		Band 48			Yes	Yes	Yes	Yes	
2C-66A-66A	(0)	Band 2			2C BCS 0				80
		Band 66	66A-66A BCS 0						
2A-66C-71A	(0)	Band 2			Yes	Yes	Yes	Yes	80
		Band 66	66C BCS 0						
		Band 71			Yes	Yes	Yes	Yes	
4A-48D	(0)	Band 4			Yes	Yes	Yes	Yes	40
		Band 48	48D BCS 0						
5A-48A-66A-66A	(0)	Band 5			Yes	Yes			70
		Band 48			Yes	Yes	Yes	Yes	
		Band 66	66A-66A BCS 0						
5A-48C-66A	(0)	Band 5			Yes	Yes			70
		Band 48			48C BCS 0				
		Band 66	Yes	Yes	Yes	Yes	Yes	Yes	
5A-48D	(0)	Band 5			Yes	Yes			70
		Band 48	48D 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-2A-5A-66A-66A	(0)	Band 2	2A-2A BCS 0						90
		Band 5			Yes	Yes			
		Band 66	66A-66A BCS 0						
2A-2A-5A-66C	(0)	Band 2	2A-2A BCS 0						90
		Band 5			Yes	Yes			
		Band 66	66C BCS 0						
2A-2A-12A-66A-66A	(0)	Band 2	2A-2A BCS 0						90
		Band 12			Yes	Yes			
		Band 66	66A-66A BCS 0						
2A-2A-12B-66A	(0)	Band 2	2A-2A BCS 0						75
		Band 5	12B BCS 0						
		Band 66			Yes	Yes	Yes	Yes	
2A-5A-30A-66A-66A	(0)	Band 2			Yes	Yes	Yes	Yes	80
		Band 5			Yes	Yes	Yes	Yes	
		Band 66	66A-66A BCS 0						
2A-12A-30A-66A-66A	(0)	Band 2			Yes	Yes	Yes	Yes	80
		Band 12			Yes	Yes			
		Band 66	66A-66A BCS 0						
2A-2A-5A-30A-66A	(0)	Band 2	2A-2A BCS 0						80
		Band 5			Yes	Yes			
		Band 66	66A-66A BCS 0						
2A-2A-5A-66B	(0)	Band 2	2A-2A BCS 0						70
		Band 5			Yes	Yes			
		Band 66	66B BCS 0						
2A-2A-12A-30A-66A	(0)	Band 2	2A-2A BCS 0						80
		Band 5			Yes	Yes			
		Band 66	66A-66A BCS 0						
2A-2A-13A-66A-66A	(0)	Band 2	2A-2A BCS 0						90
		Band 13			Yes	Yes			
		Band 66	66A-66A BCS 0						
2A-2A-14A-30A-66A	(0)	Band 2	2A-2A BCS 0						80
		Band 14			Yes	Yes			
		Band 66	66A-66A BCS 0						
2A-2A-14A-66A-66A	(0)	Band 2	2A-2A BCS 0						90
		Band 14			Yes	Yes			
		Band 66	66A-66A BCS 0						
2A-5A-48A-66A-66A	(0)	Band 2	Yes	Yes	Yes	Yes	Yes	Yes	90
		Band 5			Yes	Yes	Yes	Yes	
		Band 66	66A-66A BCS 0						
2A-5A-48D	(0)	Band 2	Yes	Yes	Yes	Yes	Yes	Yes	90
		Band 5			Yes	Yes			
		Band 48	48D BCS 0						
2A-12B-66A-66A	(0)	Band 2			Yes	Yes	Yes	Yes	75
		Band 12	12B BCS 0						
		Band 66	66A-66A BCS 0						

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-48A-66B	(0)	Band 13			Yes	Yes			50
		Band 48			Yes	Yes	Yes	Yes	
		Band 66	66B BCS 0						
13A-48A-66C	(0)	Band 13			Yes	Yes			70
		Band 48			Yes	Yes	Yes	Yes	
		Band 66	66C BCS 0						
13A-48C-66A	(0)	Band 13			Yes	Yes			70
		Band 48			48C BCS 0				
		Band 66			Yes	Yes	Yes	Yes	
13A-48D	(0)	Band 13			Yes	Yes			70
		Band 48			48D BCS 0				
		Band 66			Yes	Yes	Yes	Yes	
14A-30A-66A-66A	(0)	Band 14			Yes	Yes			60
		Band 30			Yes	Yes			
		Band 66	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			Yes	Yes			
		Band 66	66A-66A BCS 0						
48A-48A-66A-66A	(0)	Band 48	48A-48C BCS 0						80
		Band 66	66A-66A BCS 0						
48A-48C-66A	(0)	Band 48	48A-48C BCS 0						80
		Band 66			Yes	Yes	Yes	Yes	
48C-66A-66A	(0)	Band 48	48C BCS 0						80
		Band 66	66A-66A BCS 0						
48C-66B	(0)	Band 48	48C BCS 0						60
		Band 66	66B BCS 0						
48C-66C	(0)	Band 48	48C BCS 0						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-13A-48C-66A	(0)	Band 2			Yes	Yes	Yes	Yes	90
		Band 13			Yes	Yes			
		Band 48	48C BCS 0						
2A-13A-48D	(0)	Band 2			Yes	Yes	Yes	Yes	90
		Band 13			Yes	Yes			
		Band 48	48D BCS 0						
2A-14A-30A-66A-66A	(0)	Band 2			Yes	Yes	Yes	Yes	80
		Band 14			Yes	Yes			
		Band 30			Yes	Yes			
2A-48A-48C-66A	(0)	Band 2			Yes	Yes	Yes	Yes	100
		Band 48	48A-48C BCS 0						
		Band 66			Yes	Yes	Yes	Yes	
2A-48C-48C	(0)	Band 2			Yes	Yes	Yes	Yes	100
		Band 48	48C-48C BCS 0						
2A-48C-66A-66A	(0)	Band 2	Yes	Yes	Yes	Yes	Yes	Yes	100
		Band 48	48C BCS 0						
		Band 66			Yes	Yes	Yes	Yes	
2A-48D-66A	(0)	Band 2			Yes	Yes	Yes	Yes	100
		Band 48	48D BCS 0						
		Band 66			Yes	Yes	Yes	Yes	
2A-48E	(0)	Band 2			Yes	Yes	Yes	Yes	100
		Band 48	48E BCS 0						
4A-48E	(0)	Band 2			Yes	Yes	Yes	Yes	100
		Band 48	48E BCS 0						
5A-48C-66A-66A	(0)	Band 2			Yes	Yes			90
		Band 48	48C BCS 0						
		Band 66	66A-66A BCS 0						
5A-48D-66A	(0)	Band 5			Yes	Yes			90
		Band 48	48D BCS 0						
		Band 66	Yes	Yes	Yes	Yes	Yes	Yes	
13A-48D-66A	(0)	Band 13			Yes	Yes			90
		Band 48	48D BCS 0						
		Band 66			Yes	Yes	Yes	Yes	
13A-48E	(0)	Band 13			Yes	Yes			90
		Band 48	48E BCS 0						
48C-48C-66A	(0)	Band 48	48C-48C BCS 0						100
		Band 66			Yes	Yes	Yes	Yes	
		Band 48	48A-48D BCS 0						
48A-48D-66A	(0)	Band 66			Yes	Yes	Yes	Yes	100
		Band 48	48E BCS 0						
48E-66A	(0)	Band 48	48E BCS 0						100
		Band 66			Yes	Yes	Yes	Yes	

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			
		Band 48	48C BCS 0						
2A-48E-66A	(0)	Band 2			Yes	Yes	Yes	Yes	120
		Band 48	48E BCS 0						
		Band 66			Yes	Yes	Yes	Yes	
5A-48D-66A-66A	(0)	Band 5			Yes	Yes			110
		Band 48	48D BCS 0						
		Band 66	66A-66A BCS 0						
13A-48E-66A	(0)	Band 13			Yes	Yes			110
		Band 48	48E BCS 0						
		Band 66			Yes	Yes	Yes	Yes	

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
66A-66A	(0)	Band 66	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
48A-48A	(0)	Band 48	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-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			
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			

7. DL Intra Band(contiguous)

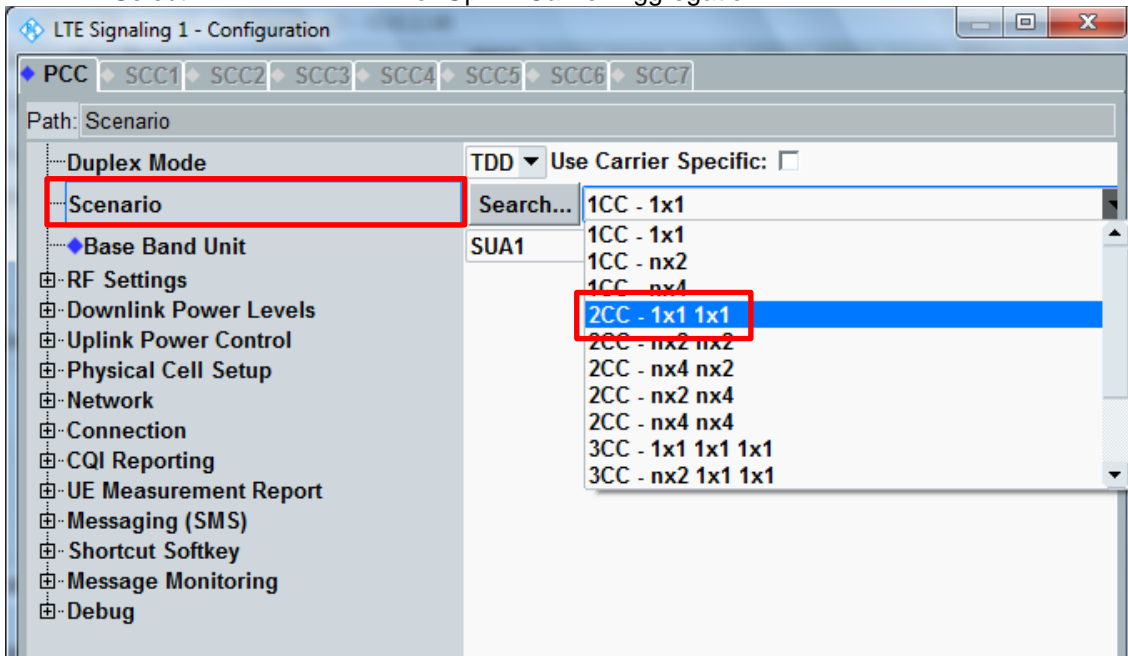
E-UTRA CA configuration	Bandwidth Combination Set	E-UTRA Band	Allowed Channel BW Per Carrier (MHz)					Max Aggregated BW
			1st Carrier	2nd Carrier	3rd Carrier	4th Carrier	5th Carrier	
2C	(0)	Band 2	5	20				40
			10	15,20				
			15	10,15,20				
			20	5,10,15,20				
12B	(0)	Band 12	5, 10	5				15
41C	(0)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

Note:

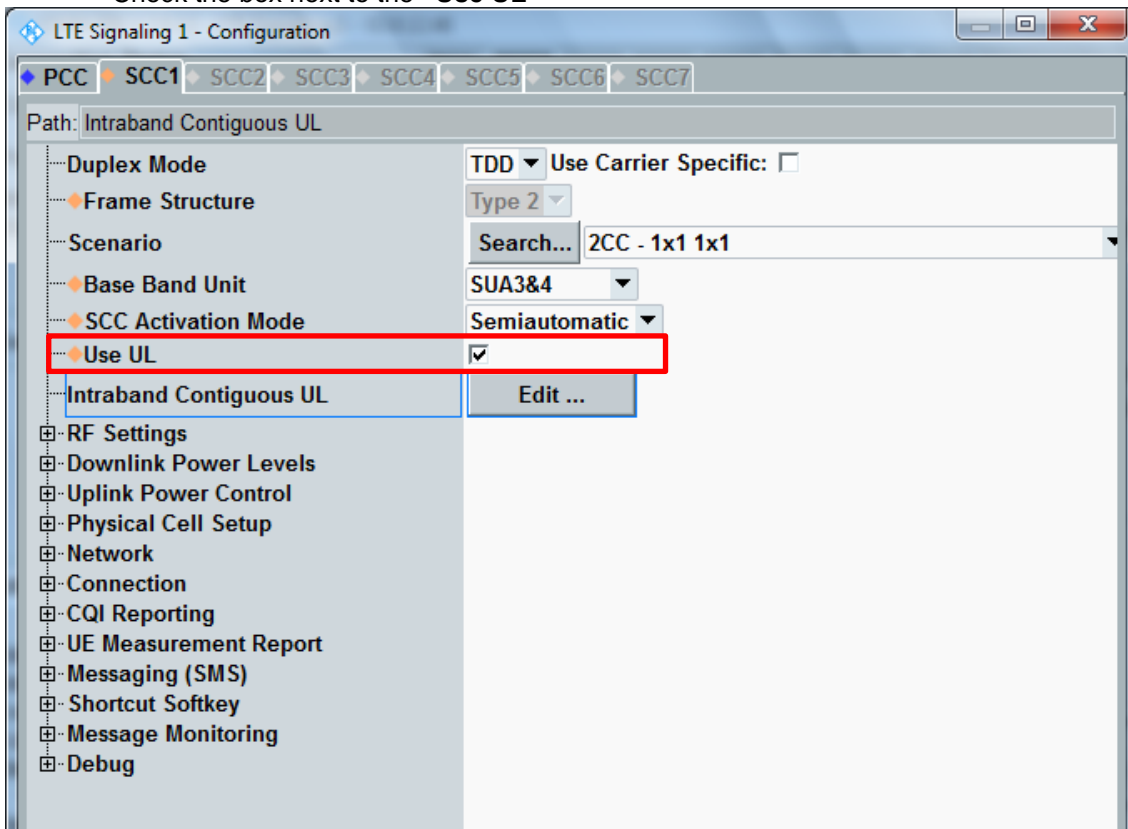
LTE CA_41C, 48C, 66B, 66C are supported in both Uplink and Downlink, other CA configurations are supported only Downlink

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 (06:13:39 State 'Cell On', 2CC 1x1 1x1; 06:13:21 Signaling Unit Startup; 06:13:21 Data end to end enabled; 06:13:20 Starting Data Application Unit), UE Info (IMEI, IMSI, Voice Domain Pr..., UE's Usage Setti..., Default Bearer, Dedicated Bearer), and a right-hand navigation menu with options: LTE, 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

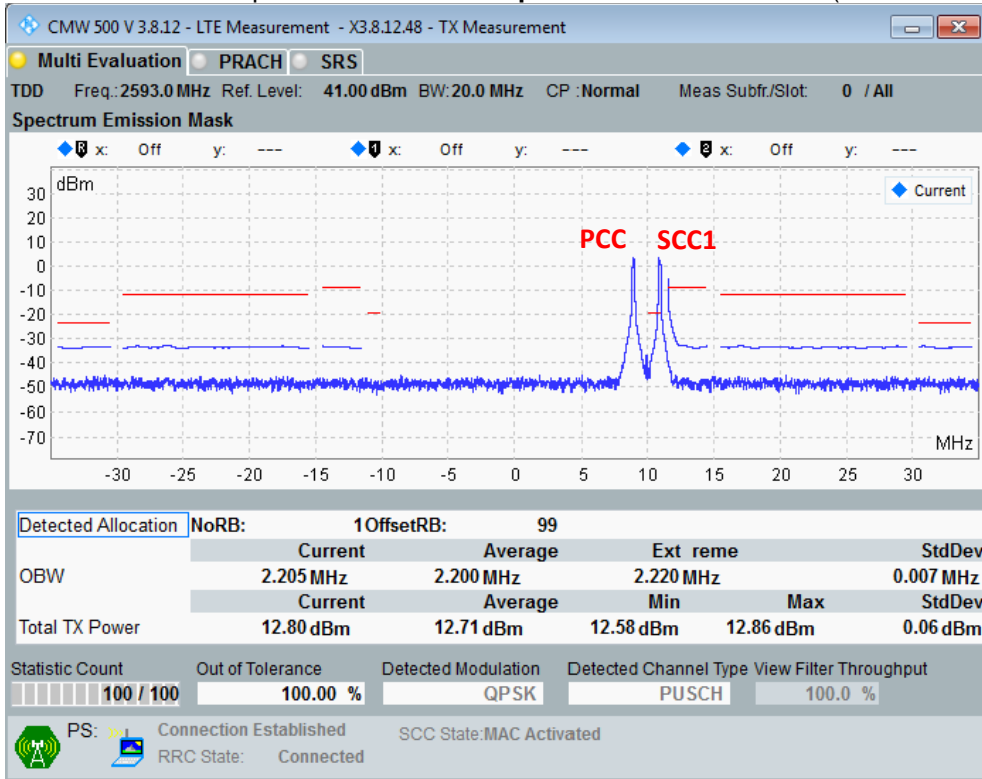
Additional interface elements include: Connection Status (Cell, Packet Switched ON, RRC State Idle, SCC1 State OFF), Event Log (06:13:39 State 'Cell On', 2CC 1x1 1x1; 06:13:21 Signaling Unit Startup; 06:13:21 Data end to end enabled; 06:13:20 Starting Data Application Unit), UE Info (IMEI, IMSI, Voice Domain Pr..., UE's Usage S..., Default Bearer, Dedicated Be...), and a right-hand navigation menu with options: LTE, LTE 1 TX Meas., LTE 1 RX Meas., Go to..., Routing, LTE Signaling ON, and Config ...

- 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 "Connection Status" and shows the following details:

- Cell:** Connection Established
- RRC State:** Connected
- SCC1 State:** MAC Activated
- Event Log:**
 - 06:16:44 State 'Connection Established'
 - 06:16:44 EPS Dedicated Bearer Establis
 - 06:16:43 SCC1: MAC Activated
 - 06:16:41 SCC1: RRC Added
 - 06:16:41 SCC1: On
 - 06:16:30 SCC1: Off
- 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:**
 - Operating Band: Band 41
 - Channel: 40818 Ch
 - Frequency: 2612.8 MHz
 - Cell Bandwidth: 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
 - Mod / TBSI: QPSK 5
 - Code Rate / TBS: 0.328 8760 0.583 144
 - Throughput: 3.478 Mbit/s 0.057 Mbit/s
- Buttons:** Swap, Copy, Detach, Disconnect (highlighted in red), Send SMS, Inter/Intra-RAT ...

- 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.)

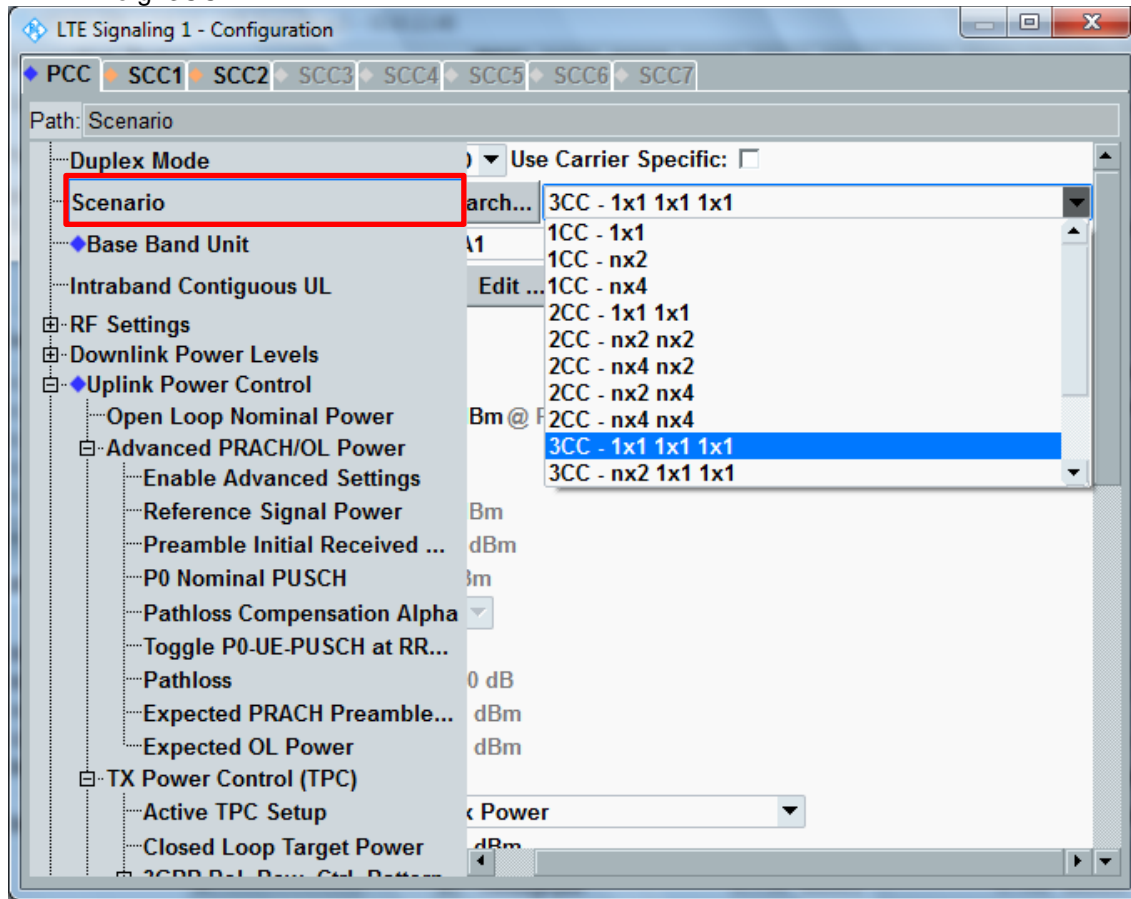
TX Measurement

	Current	Average	Extreme	StdDev
EVM RMS [%] I/h	0.70	0.75	0.74	0.79
EVM Peak [%] I/h	1.80	2.34	1.97	2.34
EVM DMRS [%] I/h	0.72	0.71	0.85	0.96
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]	-70.19	-72.51	-65.49	5.47
IQ Gain Imbalance [dB]	NCAP	NCAP	NCAP	NCAP
IQ Quadrature Error [°]	NCAP	NCAP	NCAP	NCAP
Freq Error [Hz]	3.51	0.63	9.37	3.76
Timing Error [Ts]	-6.50	-6.34	-6.82	0.16
OBW [MHz]	2.21	2.20	2.21	0.00
	Current	Average	Min	Max
TX Power [dBm]	12.62	12.66	12.59	12.76
Peak Power [dBm]	20.43	19.93	19.14	20.69
RB Power [dBm]	9.80	9.82	9.76	9.90

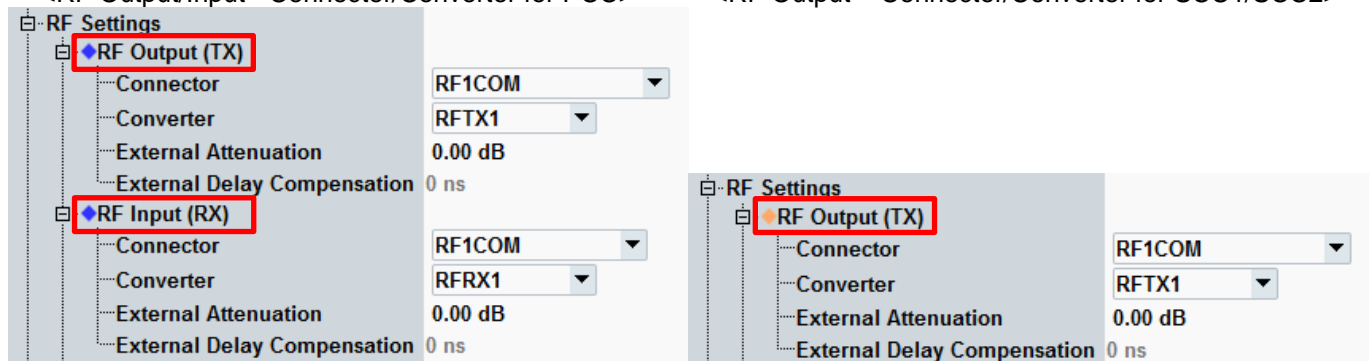
Statistic Count: 100 / 100
 Out of Tolerance: 0.00 %
 Detected Modulation: QPSK
 Detected Channel Type: PUSCH
 View Filter Throughput: 100.0 %

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)

Channel: 67036 Ch (Downlink), 132572 Ch (Uplink)

Frequency: 2170.0 MHz (Downlink), 1770.0 MHz (Uplink)

Cell Bandwidth: 20.0 MHz (Downlink), 20.0 MHz (Uplink)

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 (Downlink), 1 (Uplink)

Start RB: 0 (Downlink), 0 (Uplink)

Mod / TBSI: QPSK (Downlink), 5 (Downlink), QPSK (Uplink), 10 (Uplink)

Code Rate / TBS: 0.330 8760 (Downlink), 0.583 144 (Uplink)

Throughput: 8.734 Mbit/s (Downlink), 0.144 Mbit/s (Uplink)

64/256-QAM:

Downlink Multicluster: Uplink Multicluster:

Right Sidebar: LTE 1 TX Meas., LTE 1 RX Meas., Go to..., Routing, 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:

- Operating Band: Co-location active with PCC
- 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
- Throughput: 8.734 Mbit/s
- # RB: 100
- Start RB: 0
- Mod / TBSI: QPSK 5
- Code Rate / TBS: 0.330 8760

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

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:

- Operating Band: Band 71
- 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
- Throughput: 8.734 Mbit/s
- # RB: 100
- Start RB: 0
- Mod / TBSI: QPSK 5
- Code Rate / TBS: 0.330 8760

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

- 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.)

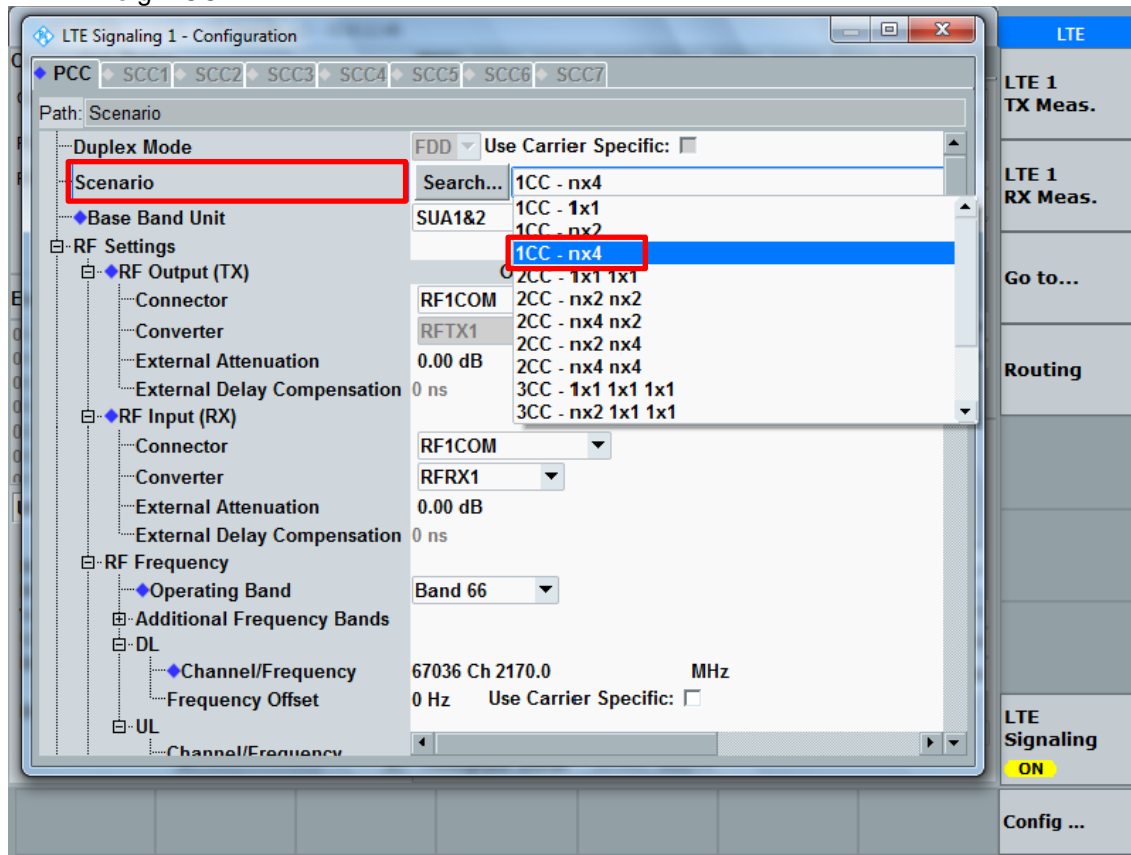
TX Measurement

	Current	Average	Extreme	StdDev
EVM RMS [%] I/h	0.64	0.71	0.83	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

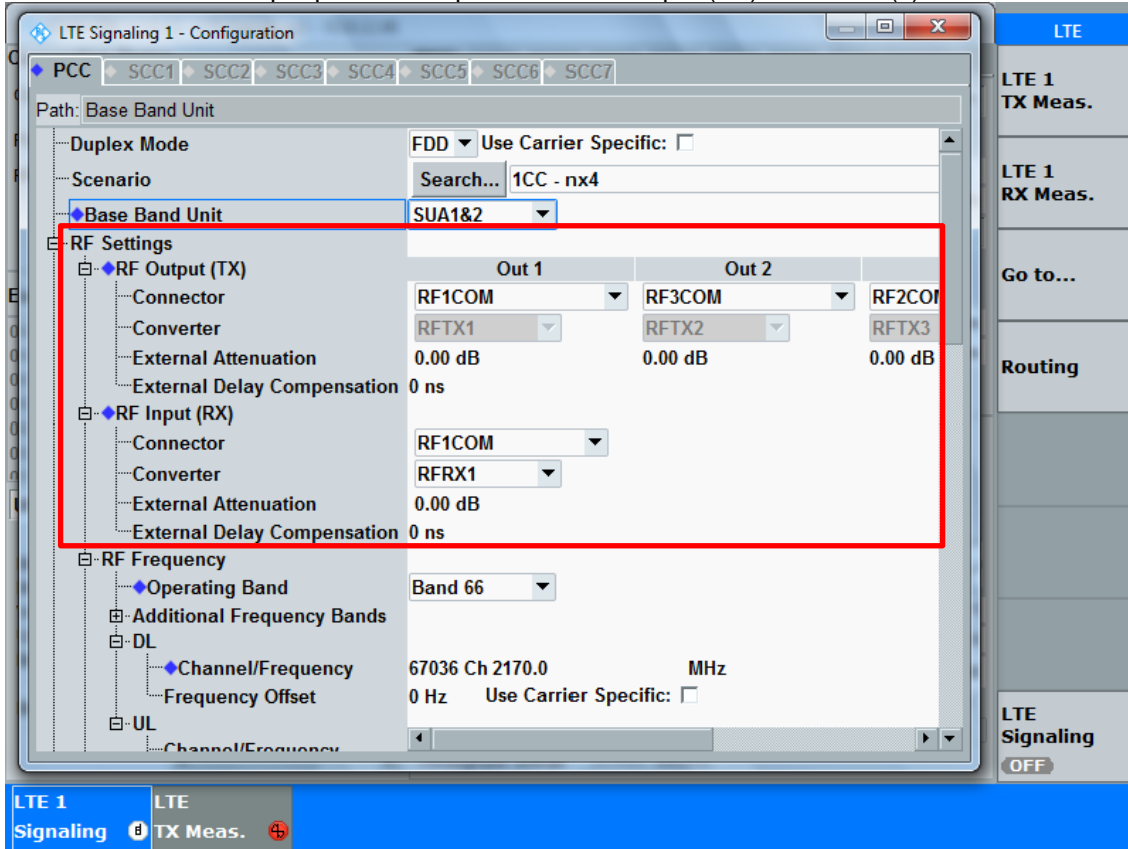
Multi Evaluation: RUN

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.

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

Extended BLER RLC Throughput

Overall PCC SCC1 SCC2 SCC3 SCC4

Throughput (Mbit/s) vs Subframes

	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				

Subframes: 9800 Scheduled: 9800 Median CQI PCC Stream 1: ---

PS: Connection Established RRC State: Connected

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

CMW 500 V 3.8.12 - LTE Measurement - X3.8.12.48 - TX Measurement

Multi Evaluation PRACH SRS

FDD Freq.: 1770.0 MHz Ref. Level: 41.00 dBm BW: 20.0 MHz CP: Normal Meas Subfr/Slot: 0 / All

TX Measurement

	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

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

PS: Connection Established RRC State: Connected

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.

E-UTRA CA configuration (BCS)	RF exposure conditions	Antenna	Bands		UL												MPR	Standalone		PCC + SCC				
			PCC	SCC	PCC						SCC							LTE Rel.8	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								
CA_41C(0)(1)(2)(3)	Head	Ant B	41C	41C	QPSK	1	0	20	2636.5	41055	QPSK	1	99	20	2616.7	40857	0	24.38	40	0	25.0	24.35	-0.03	16
CA_41C(0)(1)(2)(3)	Hotspot	Ant B	41C	41C	QPSK	50	0	20	2636.5	41055	QPSK	50	50	20	2616.7	40857	0	20.66	40	0	21.0	20.63	-0.03	16
CA_41C(0)(1)(2)(3)	Body&Extremity	Ant B	41C	41C	QPSK	50	0	20	2680.0	41490	QPSK	50	0	20	2660.2	41292	0	17.53	40	0	18.0	17.51	-0.02	16
CA_41C(0)(1)(2)(3)	Head	Ant E	41C	41C	QPSK	1	0	20	2636.5	41055	QPSK	1	99	20	2616.7	40857	0	24.64	40	0	25.0	24.61	-0.03	16
CA_41C(0)(1)(2)(3)	Body&Hotspot	Ant E	41C	41C	QPSK	1	0	20	2636.5	41055	QPSK	1	99	20	2616.7	40857	0	21.18	40	0	21.5	21.15	-0.03	16
CA_41C(0)(1)(2)(3)	Extremity	Ant E	41C	41C	QPSK	50	0	20	2506.0	39750	QPSK	50	50	20	2525.8	39948	0	20.86	40	0	21.5	20.85	-0.01	16
CA_48C(0)	Head	Ant E	48C	48C	QPSK	50	0	20	3646.7	56207	QPSK	50	50	20	3626.9	56009	0	21.52	40	0	23.0	21.48	-0.04	16
CA_48C(0)	Body&Hotspot	Ant E	48C	48C	QPSK	1	0	20	3690.0	56640	QPSK	1	99	20	3670.2	56442	0	19.82	40	0	20.5	19.80	-0.02	16
CA_48C(0)	Extremity	Ant E	48C	48C	QPSK	1	0	20	3646.7	56207	QPSK	1	99	20	3626.9	56009	0	19.58	40	0	20.5	19.57	-0.01	16
CA_66B(0)	Head	Ant B	66B	66B	QPSK	1	0	15	1772.5	132597	QPSK	1	24	5	1763.2	132504	0	23.90	20	0	25.0	23.88	-0.02	16
CA_66B(0)	Hotspot	Ant B	66B	66B	QPSK	75	0	15	1772.5	132597	QPSK	25	0	5	1763.2	132504	0	19.09	20	0	20.0	19.11	-0.08	16
CA_66B(0)	Body&Extremity	Ant B	66B	66B	QPSK	75	0	15	1772.5	132597	QPSK	25	0	5	1763.2	132504	0	19.09	20	0	20.0	19.11	-0.08	16
CA_66B(0)	Head	Ant E	66B	66B	QPSK	36	0	15	1772.5	132597	QPSK	12	13	5	1763.2	132504	0	20.95	20	0	22.5	20.91	-0.04	16
CA_66B(0)	Hotspot	Ant E	66B	66B	QPSK	36	0	15	1772.5	132597	QPSK	12	13	5	1763.2	132504	0	19.30	20	0	21.0	19.23	-0.07	16
CA_66B(0)	Body&Extremity	Ant E	66B	66B	QPSK	36	0	15	1772.5	132597	QPSK	12	13	5	1763.2	132504	0	19.30	20	0	21.0	19.23	-0.07	16
CA_66C(0)	Head	Ant B	66C	66C	QPSK	1	0	20	1770.0	132572	QPSK	1	99	20	1750.2	132374	0	24.02	40	0	25.0	24.01	-0.01	16
CA_66C(0)	Hotspot	Ant B	66C	66C	QPSK	100	0	20	1770.0	132572	QPSK	100	0	20	1750.2	132374	0	19.10	40	0	20.0	19.06	-0.04	16
CA_66C(0)	Body&Extremity	Ant B	66C	66C	QPSK	100	0	20	1770.0	132572	QPSK	100	0	20	1750.2	132374	0	19.10	40	0	20.0	19.06	-0.04	16
CA_66C(0)	Head	Ant E	66C	66C	QPSK	50	0	20	1770.0	132572	QPSK	50	50	20	1750.2	132374	0	21.07	40	0	22.5	21.04	-0.03	16
CA_66C(0)	Hotspot	Ant E	66C	66C	QPSK	50	0	20	1770.0	132572	QPSK	50	50	20	1750.2	132374	0	19.55	40	0	21.0	19.51	-0.04	16
CA_66C(0)	Body&Extremity	Ant E	66C	66C	QPSK	50	0	20	1770.0	132572	QPSK	50	50	20	1750.2	132374	0	19.55	40	0	21.0	19.51	-0.04	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#1	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#8	4CC#8	2A-2A-4A-71A		
2CC#5	2A-13A		3CC#4	3CC#5	2A-2A-66A		4CC#5	4CC#5	2A-2A-5A-66A		5CC#1
2CC#6	2A-29A	B29 SCC Only	3CC#17	3CC#6	2A-2A-71A		4CC#4	4CC#6	2A-2A-12A-66A		5CC#3
2CC#7	2A-30A		3CC#11	3CC#7	2A-4A-4A		4CC#1	4CC#7	2A-2A-12B		5CC#4
2CC#8	2A-66A		3CC#5	3CC#8	2A-4A-5A		4CC#2	4CC#8	2A-2A-13A-66A		5CC#10
2CC#9	2A-71A		3CC#6	3CC#9	2A-4A-12A		4CC#3	4CC#9	2A-2A-66A-66A		5CC#1
2CC#10	4A-4A		3CC#7	3CC#10	2A-4A-71A		4CC#4	4CC#10	2A-2A-66A-71A		
2CC#11	4A-5A		3CC#8	3CC#11	2A-5A-30A		4CC#15	4CC#11	2A-2A-66C		5CC#2
2CC#12	4A-12A		3CC#9	3CC#12	2A-5A-66A		4CC#5	4CC#12	2A-4A-4A-5A		
2CC#13	4A-13A		3CC#26	3CC#13	2A-12A-30A		4CC#18	4CC#13	2A-4A-4A-12A		
2CC#14	4A-71A		3CC#10	3CC#14	2A-12A-66A		4CC#6	4CC#14	2A-4A-12B		
2CC#15	5A-30A		3CC#11	3CC#15	2A-12B		4CC#7	4CC#15	2A-5A-30A-66A		5CC#5
2CC#16	5A-66A		3CC#12	3CC#16	2A-13A-66A		4CC#8	4CC#16	2A-5A-66A-66A		5CC#1
2CC#17	12A-30A		3CC#13	3CC#17	2A-29A-30A	B29 SCC Only	4CC#33	4CC#17	2A-5A-66C		5CC#2
2CC#18	12A-66A		3CC#14	3CC#18	2A-29A-66A	B29 SCC Only	4CC#34	4CC#18	2A-12A-30A-66A		5CC#6
2CC#19	12B		3CC#15	3CC#19	2A-30A-66A		4CC#15	4CC#19	2A-12A-66A-66A		5CC#3
2CC#20	13A-66A		3CC#16	3CC#20	2A-66A-66A		4CC#9	4CC#20	2A-12A-66C		
2CC#21	25A-25A			3CC#21	2A-66A-71A		4CC#10	4CC#21	2A-12B-66A		5CC#4
2CC#22	29A-30A	B29 SCC Only	3CC#17	3CC#22	2A-66B		4CC#36	4CC#22	2A-13A-66A-66A		5CC#10
2CC#23	29A-66A	B29 SCC Only	3CC#18	3CC#23	2A-66C		4CC#11	4CC#23	2A-30A-66A-66A		5CC#5
2CC#24	30A-66A		3CC#19	3CC#24	4A-4A-5A		4CC#12	4CC#24	2A-66A-66A-71A		
2CC#25	41C		3CC#66	3CC#25	4A-4A-12A		4CC#13	4CC#25	4A-4A-12B		
2CC#26	66A-66A		3CC#20	3CC#26	4A-4A-13A			4CC#26	5A-30A-66A-66A		5CC#5
2CC#27	66A-71A		3CC#21	3CC#27	4A-4A-71A			4CC#27	12A-30A-66A-66A		5CC#6
2CC#28	66B		3CC#22	3CC#28	4A-12B		4CC#14	4CC#28	12B-66A-66A		5CC#16
2CC#29	66C		3CC#23	3CC#29	5A-30A-66A		4CC#15	4CC#29	2A-2A-5A-30A		5CC#7
2CC#30	2A-14A		3CC#42	3CC#30	5A-66A-66A		4CC#16	4CC#30	2A-2A-12A-30A		5CC#9
2CC#31	2A-48A	B48 SCC Only	3CC#46	3CC#31	5A-66C		4CC#17	4CC#31	2A-2A-14A-30A		5CC#11
2CC#32	2C		3CC#53	3CC#32	12A-30A-66A		4CC#18	4CC#32	2A-2A-14A-66A		5CC#11
2CC#33	4A-48A	B48 SCC Only		3CC#33	12A-66A-66A		4CC#19	4CC#33	2A-2A-29A-30A	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 (Continued)

Index	2CC	Restriction	Completely Covered by Measurement Superset
2CC#34	5A-25A		
2CC#35	5A-41A		
2CC#36	5A-48A	B48 SCC Only	3CC#46
2CC#37	12A-25A		
2CC#38	13A-48A	B48 SCC Only	3CC#47
2CC#39	14A-30A		3CC#48
2CC#40	14A-66A		3CC#49
2CC#41	25A-41A	B41 SCC Only	
2CC#42	41A-41A		
2CC#43	48A-48A		
2CC#44	48A-66A	B48 SCC Only	3CC#51
2CC#45	48A-71A	B48 SCC Only	3CC#69
2CC#46	48B		
2CC#47	48C		3CC#70

Index	3CC	Restriction	Completely Covered by Measurement Superset
3CC#34	12A-66C		4CC#20
3CC#35	12B-66A		4CC#21
3CC#36	13A-66A-66A		4CC#22
3CC#37	13A-66B		4CC#42
3CC#38	13A-66C		4CC#43
3CC#39	30A-66A-66A		4CC#23
3CC#40	66A-66A-71A		4CC#24
3CC#41	66C-71A		4CC#54
3CC#42	2A-2A-14A		4CC#31
3CC#43	2A-2A-29A	B29 SCC Only	4CC#33
3CC#44	2A-2A-30A		4CC#29
3CC#45	2A-4A-13A		
3CC#46	2A-5A-48A	B48 SCC Only	4CC#37
3CC#47	2A-13A-48A	B48 SCC Only	4CC#40
3CC#48	2A-14A-30A		4CC#31
3CC#49	2A-14A-66A		4CC#32
3CC#50	2A-48A-48A	B48 SCC Only	4CC#48
3CC#51	2A-48A-66A	B48 SCC Only	4CC#37
3CC#52	2A-48C	B48 SCC Only	4CC#38
3CC#53	2C-66A		4CC#53
3CC#54	4A-48C	B48 SCC Only	
3CC#55	5A-48A-66A	B48 SCC Only	4CC#37
3CC#56	5A-48C	B48 SCC Only	4CC#38
3CC#57	5A-66B		4CC#39
3CC#58	13A-48A-66A	B48 SCC Only	4CC#40
3CC#59	13A-48B	B48 SCC Only	
3CC#60	13A-48C	B48 SCC Only	4CC#41
3CC#61	14A-30A-66A		4CC#44
3CC#62	14A-66A-66A		4CC#45
3CC#63	25A-41C	B41 SCC Only	
3CC#64	29A-30A-66A	B29 SCC Only	4CC#46
3CC#65	29A-66A-66A	B29 SCC Only	4CC#47
3CC#66	41A-41C		
3CC#67	41D		
3CC#68	48A-48A-66A	B48 SCC Only	4CC#48
3CC#69	48A-48A-71A	B48 SCC Only	
3CC#70	48A-48C		
3CC#71	48A-66A-66A	B48 SCC Only	4CC#50
3CC#72	48A-66B	B48 SCC Only	4CC#59
3CC#73	48A-66C	B48 SCC Only	4CC#60
3CC#74	48B-66A	B48 SCC Only	
3CC#75	48C-66A	B48 SCC Only	4CC#51
3CC#76	48C-71A	B48 SCC Only	
3CC#77	48D		4CC#68

Index	4CC	Restriction	Completely Covered by Measurement Superset
4CC#34	2A-2A-29A-66A	B29 SCC Only	
4CC#35	2A-2A-30A-66A		5CC#7
4CC#36	2A-2A-66B		5CC#8
4CC#37	2A-5A-48A-66A	B48 SCC Only	5CC#13
4CC#38	2A-5A-48C	B48 SCC Only	5CC#14
4CC#39	2A-5A-66B		5CC#8
4CC#40	2A-13A-48A-66A	B48 SCC Only	
4CC#41	2A-13A-48C	B48 SCC Only	5CC#17
4CC#42	2A-13A-66B		
4CC#43	2A-13A-66C		
4CC#44	2A-14A-30A-66A		5CC#11
4CC#45	2A-14A-66A-66A		5CC#12
4CC#46	2A-29A-30A-66A	B29 SCC Only	
4CC#47	2A-29A-66A-66A	B29 SCC Only	
4CC#48	2A-48A-48A-66A	B48 SCC Only	
4CC#49	2A-48A-48C	B48 SCC Only	5CC#20
4CC#50	2A-48A-66A-66A	B48 SCC Only	5CC#13
4CC#51	2A-48C-66A	B48 SCC Only	5CC#14
4CC#52	2A-48D	B48 SCC Only	5CC#15
4CC#53	2C-66A-66A		
4CC#54	2A-66C-71A		
4CC#55	4A-48D	B48 SCC Only	
4CC#56	5A-48A-66A-66A	B48 SCC Only	5CC#13
4CC#57	5A-48C-66A	B48 SCC Only	5CC#14
4CC#58	5A-48D	B48 SCC Only	5CC#15
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#17
4CC#62	13A-48D	B48 SCC Only	5CC#18
4CC#63	14A-30A-66A-66A		5CC#19
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#20
4CC#68	48A-48D		
4CC#69	48C-48C		
4CC#70	48C-66A-66A	B48 SCC Only	5CC#22
4CC#71	48C-66B	B48 SCC Only	
4CC#72	48C-66C	B48 SCC Only	
4CC#73	48D-66A	B48 SCC Only	5CC#23
4CC#74	48E		5CC#32

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-66A-66A		
5CC#2	2A-2A-5A-66C		
5CC#3	2A-2A-12A-66A-66A		
5CC#4	2A-2A-12B-66A		
5CC#5	2A-5A-30A-66A-66A		
5CC#6	2A-12A-30A-66A-66A		
5CC#7	2A-2A-5A-30A-66A		
5CC#8	2A-2A-5A-66B		
5CC#9	2A-2A-12A-30A-66A		
5CC#10	2A-2A-13A-66A-66A		
5CC#11	2A-2A-14A-30A-66A		
5CC#12	2A-2A-14A-66A-66A		
5CC#13	2A-5A-48A-66A-66A	B48 SCC Only	
5CC#14	2A-5A-48C-66A	B48 SCC Only	6CC#1
5CC#15	2A-5A-48D	B48 SCC Only	
5CC#16	2A-12B-66A-66A		
5CC#17	2A-13A-48C-66A	B48 SCC Only	
5CC#18	2A-13A-48D	B48 SCC Only	
5CC#19	2A-14A-30A-66A-66A		
5CC#20	2A-48A-48C-66A	B48 SCC Only	
5CC#21	2A-48C-48C	B48 SCC Only	
5CC#22	2A-48C-66A-66A	B48 SCC Only	6CC#1
5CC#23	2A-48D-66A	B48 SCC Only	
5CC#24	2A-48E	B48 SCC Only	6CC#2
5CC#25	4A-48E		
5CC#26	5A-48C-66A-66A	B48 SCC Only	6CC#1
5CC#27	5A-48D-66A	B48 SCC Only	6CC#3
5CC#28	13A-48D-66A	B48 SCC Only	
5CC#29	13A-48E	B48 SCC Only	6CC#4
5CC#30	48C-48C-66A	B48 SCC Only	
5CC#31	48A-48D-66A	B48 SCC Only	
5CC#32	48A-48E		
5CC#33	48C-48D		
5CC#34	48E-66A		6CC#2

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	
6CC#4	13A-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).

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#4	3CC#2	[2A]-2A-4A		4CC#3	4CC#2	2A-2A-[4A]-[4A]		
2CC#3	2A-[4A]		3CC#1	3CC#3	[2A]-2A-[4A]		4CC#4	4CC#3	[2A]-2A-4A-4A		
2CC#4	[2A]-4A		3CC#2	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]-29A	29A SCC only	3CC#50	3CC#9	[2A]-[2A]-12A		4CC#17	4CC#9	2A-2A-[4A]-5A		
2CC#10	2A-[30A]		3CC#33	3CC#10	[2A]-2A-13A		4CC#37	4CC#10	[2A]-2A-4A-5A		
2CC#11	[2A]-30A		3CC#34	3CC#11	[2A]-[2A]-13A		4CC#39	4CC#11	[2A]-2A-[4A]-5A		
2CC#12	[2A]-[30A]		3CC#35	3CC#12	2A-2A-[66A]		4CC#24	4CC#12	[2A]-[2A]-4A-5A		
2CC#13	2A-[66A]		3CC#12	3CC#13	[2A]-2A-66A		4CC#25	4CC#13	[2A]-[2A]-[4A]-5A		
2CC#14	[2A]-66A		3CC#13	3CC#14	[2A]-2A-[66A]		4CC#26	4CC#14	2A-2A-[4A]-12A		
2CC#15	[2A]-[66A]		3CC#14	3CC#15	[2A]-[2A]-66A		4CC#27	4CC#15	[2A]-2A-4A-12A		
2CC#16	[2A]-71A		3CC#17	3CC#16	[2A]-[2A]-[66A]		4CC#28	4CC#16	[2A]-2A-[4A]-12A		
2CC#17	[4A]-4A		3CC#19	3CC#17	[2A]-2A-71A		4CC#20	4CC#17	[2A]-[2A]-4A-12A		
2CC#18	[4A]-[4A]		3CC#20	3CC#18	[2A]-[2A]-71A		4CC#22	4CC#18	[2A]-[2A]-[4A]-12A		
2CC#19	[4A]-5A		3CC#24	3CC#19	2A-[4A]-4A		4CC#1	4CC#19	2A-2A-[4A]-71A		
2CC#20	[4A]-12A		3CC#27	3CC#20	2A-[4A]-[4A]		4CC#2	4CC#20	[2A]-2A-4A-71A		
2CC#21	[4A]-13A		3CC#80	3CC#21	[2A]-4A-4A		4CC#3	4CC#21	[2A]-2A-[4A]-71A		
2CC#22	[4A]-71A		3CC#30	3CC#22	[2A]-[4A]-4A		4CC#4	4CC#22	[2A]-[2A]-4A-71A		
2CC#23	5A-[30A]		3CC#33	3CC#23	[2A]-[4A]-[4A]		4CC#5	4CC#23	[2A]-[2A]-[4A]-71A		
2CC#24	5A-[66A]		3CC#36	3CC#24	2A-[4A]-5A		4CC#9	4CC#24	2A-2A-5A-[66A]		5CC#1
2CC#25	12A-[30A]		3CC#39	3CC#25	[2A]-4A-5A		4CC#10	4CC#25	[2A]-2A-5A-66A		5CC#3
2CC#26	12A-[66A]		3CC#42	3CC#26	[2A]-[4A]-5A		4CC#11	4CC#26	[2A]-2A-5A-[66A]		5CC#4
2CC#27	13A-[66A]		3CC#46	3CC#27	2A-[4A]-12A		4CC#14	4CC#27	[2A]-[2A]-5A-66A		5CC#6
2CC#28	[25A]-25A			3CC#28	[2A]-4A-12A		4CC#15	4CC#28	[2A]-[2A]-5A-[66A]		5CC#7
2CC#29	[25A]-[25A]			3CC#29	[2A]-[4A]-12A		4CC#16	4CC#29	2A-2A-12A-[66A]		5CC#14
2CC#30	29A-[30A]	29A SCC only	3CC#49	3CC#30	2A-[4A]-71A		4CC#19	4CC#30	[2A]-2A-12A-66A		5CC#16
2CC#31	29A-[66A]	29A SCC only	3CC#52	3CC#31	[2A]-4A-71A		4CC#20	4CC#31	[2A]-2A-12A-[66A]		5CC#17
2CC#32	30A-[66A]		3CC#55	3CC#32	[2A]-[4A]-71A		4CC#21	4CC#32	[2A]-[2A]-12A-66A		5CC#19
2CC#33	[30A]-66A		3CC#56	3CC#33	2A-5A-[30A]		4CC#73	4CC#33	[2A]-[2A]-12A-[66A]		5CC#20
2CC#34	[30A]-[66A]		3CC#57	3CC#34	[2A]-5A-30A		4CC#75	4CC#34	[2A]-2A-12B		5CC#23
2CC#35	[41C]		3CC#178	3CC#35	[2A]-5A-[30A]		4CC#77	4CC#35	[2A]-[2A]-12B		5CC#25

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#36	[66A]-66A		3CC#62	3CC#36	2A-5A-[66A]		4CC#24	4CC#36	2A-2A-13A-[66A]		5CC#76
2CC#37	[66A]-[66A]		3CC#63	3CC#37	[2A]-5A-66A		4CC#25	4CC#37	[2A]-2A-13A-66A		5CC#78
2CC#38	[66A]-71A		3CC#67	3CC#38	[2A]-5A-[66A]		4CC#26	4CC#38	[2A]-2A-13A-[66A]		5CC#79
2CC#39	[66B]		3CC#70	3CC#39	2A-12A-[30A]		4CC#88	4CC#39	[2A]-[2A]-13A-66A		5CC#81
2CC#40	[66C]		3CC#73	3CC#40	[2A]-12A-30A		4CC#90	4CC#40	[2A]-[2A]-13A-[66A]		5CC#82
2CC#41	[2A]-14A		3CC#110	3CC#41	[2A]-12A-[30A]		4CC#92	4CC#41	2A-2A-[66A]-66A		5CC#1
2CC#42	2A-[48A]	48A SCC only	3CC#122	3CC#42	2A-12A-[66A]		4CC#29	4CC#42	2A-2A-[66A]-[66A]		5CC#2
2CC#43	[2A]-48A	48A SCC only	3CC#123	3CC#43	[2A]-12A-66A		4CC#30	4CC#43	[2A]-2A-66A-66A		5CC#3
2CC#44	[2A]-[48A]	48A SCC only	3CC#124	3CC#44	[2A]-12A-[66A]		4CC#31	4CC#44	[2A]-2A-[66A]-66A		5CC#4
2CC#45	[2C]		3CC#150	3CC#45	[2A]-12B		4CC#34	4CC#45	[2A]-2A-[66A]-[66A]		5CC#5
2CC#46	4A-[48A]	B48 SCC Only		3CC#46	2A-13A-[66A]		4CC#36	4CC#46	[2A]-[2A]-66A-66A		5CC#6
2CC#47	[4A]-48A	B48 SCC Only		3CC#47	[2A]-13A-66A		4CC#37	4CC#47	[2A]-[2A]-[66A]-66A		5CC#7
2CC#48	[4A]-[48A]	B48 SCC Only		3CC#48	[2A]-13A-[66A]		4CC#38	4CC#48	[2A]-[2A]-[66A]-[66A]		5CC#8
2CC#49	5A-[25A]			3CC#49	2A-29A-[30A]	B29 SCC Only	4CC#160	4CC#49	2A-2A-[66A]-71A		
2CC#50	5A-[41A]	B41 SCC Only		3CC#50	[2A]-29A-30A	B29 SCC Only	4CC#161	4CC#50	[2A]-2A-66A-71A		
2CC#51	5A-[48A]	B48 SCC Only	3CC#122	3CC#51	[2A]-29A-[30A]	B29 SCC Only	4CC#162	4CC#51	[2A]-2A-[66A]-71A		
2CC#52	12A-[25A]			3CC#52	2A-29A-[66A]	B29 SCC Only	4CC#165	4CC#52	[2A]-[2A]-66A-71A		
2CC#53	13A-[48A]	B48 SCC Only	3CC#125	3CC#53	[2A]-29A-66A	B29 SCC Only	4CC#166	4CC#53	[2A]-[2A]-[66A]-71A		
2CC#54	14A-[30A]		3CC#128	3CC#54	[2A]-29A-[66A]	B29 SCC Only	4CC#167	4CC#54	2A-2A-[66C]		5CC#9
2CC#55	14A-[66A]		3CC#131	3CC#55	2A-30A-[66A]		4CC#72	4CC#55	[2A]-2A-66C		5CC#10
2CC#56	25A-[41A]	B41 SCC Only		3CC#56	2A-[30A]-66A		4CC#73	4CC#56	[2A]-2A-[66C]		5CC#11
2CC#57	[25A]-41A	B41 SCC Only		3CC#57	2A-[30A]-[66A]		4CC#74	4CC#57	[2A]-[2A]-66C		5CC#12
2CC#58	[25A]-[41A]	B41 SCC Only		3CC#58	[2A]-30A-66A		4CC#75	4CC#58	[2A]-[2A]-[66C]		5CC#13
2CC#59	[41A]-41A			3CC#59	[2A]-30A-[66A]		4CC#76	4CC#59	2A-[4A]-4A-5A		
2CC#60	[41A]-[41A]			3CC#60	[2A]-[30A]-66A		4CC#77	4CC#60	2A-[4A]-[4A]-5A		
2CC#61	[48A]-48A			3CC#61	[2A]-[30A]-[66A]		4CC#78	4CC#61	[2A]-4A-4A-5A		
2CC#62	[48A]-[48A]			3CC#62	2A-[66A]-66A		4CC#41	4CC#62	[2A]-[4A]-4A-5A		
2CC#63	48A-[66A]	B48 SCC Only	3CC#139	3CC#63	2A-[66A]-[66A]		4CC#42	4CC#63	[2A]-[4A]-[4A]-5A		
2CC#64	[48A]-66A	B48 SCC Only	3CC#140	3CC#64	[2A]-66A-66A		4CC#43	4CC#64	2A-[4A]-4A-12A		
2CC#65	[48A]-[66A]	B48 SCC Only	3CC#141	3CC#65	[2A]-[66A]-66A		4CC#44	4CC#65	2A-[4A]-[4A]-12A		
2CC#66	[48A]-71A	B48 SCC Only	3CC#187	3CC#66	[2A]-[66A]-[66A]		4CC#45	4CC#66	[2A]-4A-4A-12A		
2CC#67	[48B]			3CC#67	2A-[66A]-71A		4CC#49	4CC#67	[2A]-[4A]-4A-12A		
2CC#68	[48C]		3CC#189	3CC#68	[2A]-66A-71A		4CC#50	4CC#68	[2A]-[4A]-[4A]-12A		
				3CC#69	[2A]-[66A]-71A		4CC#51	4CC#69	2A-[4A]-12B		
				3CC#70	2A-[66B]		4CC#181	4CC#70	[2A]-4A-12B		
				3CC#71	[2A]-66B		4CC#182	4CC#71	[2A]-[4A]-12B		
				3CC#72	[2A]-[66B]		4CC#183	4CC#72	2A-5A-30A-[66A]		5CC#27
				3CC#73	2A-[66C]		4CC#54	4CC#73	2A-5A-[30A]-66A		5CC#29
				3CC#74	[2A]-66C		4CC#55	4CC#74	2A-5A-[30A]-[66A]		5CC#30

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#75	[2A]-[66C]		4CC#56	4CC#75	[2A]-5A-30A-66A		5CC#32	5CC#1	2A-2A-5A-[66A]-66A		
3CC#76	[4A]-4A-5A		4CC#59	4CC#76	[2A]-5A-30A-[66A]		5CC#33	5CC#2	2A-2A-5A-[66A]-[66A]		
3CC#77	[4A]-[4A]-5A		4CC#60	4CC#77	[2A]-5A-[30A]-66A		5CC#35	5CC#3	[2A]-2A-5A-66A-66A		
3CC#78	[4A]-4A-12A		4CC#64	4CC#78	[2A]-5A-[30A]-[66A]		5CC#36	5CC#4	[2A]-2A-5A-[66A]-66A		
3CC#79	[4A]-[4A]-12A		4CC#65	4CC#79	2A-5A-[66A]-66A		5CC#1	5CC#5	[2A]-2A-5A-[66A]-[66A]		
3CC#80	[4A]-4A-13A			4CC#80	2A-5A-[66A]-[66A]		5CC#2	5CC#6	[2A]-[2A]-5A-66A-66A		
3CC#81	[4A]-[4A]-13A			4CC#81	[2A]-5A-66A-66A		5CC#3	5CC#7	[2A]-[2A]-5A-[66A]-66A		
3CC#82	[4A]-4A-71A			4CC#82	[2A]-5A-[66A]-66A		5CC#4	5CC#8	[2A]-[2A]-5A-[66A]-[66A]		
3CC#83	[4A]-[4A]-71A			4CC#83	[2A]-5A-[66A]-[66A]		5CC#5	5CC#9	2A-2A-5A-[66C]		
3CC#84	[4A]-12B		4CC#69	4CC#84	2A-5A-[66C]		5CC#9	5CC#10	[2A]-2A-5A-66C		
3CC#85	5A-30A-[66A]		4CC#72	4CC#85	[2A]-5A-66C		5CC#10	5CC#11	[2A]-2A-5A-[66C]		
3CC#86	5A-[30A]-66A		4CC#73	4CC#86	[2A]-5A-[66C]		5CC#11	5CC#12	[2A]-[2A]-5A-66C		
3CC#87	5A-[30A]-[66A]		4CC#74	4CC#87	2A-12A-30A-[66A]		5CC#38	5CC#13	[2A]-[2A]-5A-[66C]		
3CC#88	5A-[66A]-66A		4CC#79	4CC#88	2A-12A-[30A]-66A		5CC#40	5CC#14	2A-2A-12A-[66A]-66A		
3CC#89	5A-[66A]-[66A]		4CC#80	4CC#89	2A-12A-[30A]-[66A]		5CC#41	5CC#15	2A-2A-12A-[66A]-[66A]		
3CC#90	5A-[66C]		4CC#84	4CC#90	[2A]-12A-30A-66A		5CC#43	5CC#16	[2A]-2A-12A-66A-66A		
3CC#91	12A-30A-[66A]		4CC#87	4CC#91	[2A]-12A-30A-[66A]		5CC#44	5CC#17	[2A]-2A-12A-[66A]-66A		
3CC#92	12A-[30A]-66A		4CC#88	4CC#92	[2A]-12A-[30A]-66A		5CC#46	5CC#18	[2A]-2A-12A-[66A]-[66A]		
3CC#93	12A-[30A]-[66A]		4CC#89	4CC#93	[2A]-12A-[30A]-[66A]		5CC#47	5CC#19	[2A]-[2A]-12A-66A-66A		
3CC#94	12A-[66A]-66A		4CC#94	4CC#94	2A-12A-[66A]-66A		5CC#14	5CC#20	[2A]-[2A]-12A-[66A]-66A		
3CC#95	12A-[66A]-[66A]		4CC#95	4CC#95	2A-12A-[66A]-[66A]		5CC#15	5CC#21	[2A]-[2A]-12A-[66A]-[66A]		
3CC#96	12A-[66C]		4CC#99	4CC#96	[2A]-12A-66A-66A		5CC#16	5CC#22	2A-2A-12B-[66A]		
3CC#97	12B-[66A]		4CC#102	4CC#97	[2A]-12A-[66A]-66A		5CC#17	5CC#23	[2A]-2A-12B-66A		
3CC#98	13A-[66A]-66A		4CC#105	4CC#98	[2A]-12A-[66A]-[66A]		5CC#18	5CC#24	[2A]-2A-12B-[66A]		
3CC#99	13A-[66A]-[66A]		4CC#106	4CC#99	2A-12A-[66C]			5CC#25	[2A]-[2A]-12B-66A		
3CC#100	13A-[66B]		4CC#209	4CC#100	[2A]-12A-66C			5CC#26	[2A]-[2A]-12B-[66A]		
3CC#101	13A-[66C]		4CC#212	4CC#101	[2A]-12A-[66C]			5CC#27	2A-5A-30A-[66A]-66A		
3CC#102	30A-[66A]-66A		4CC#110	4CC#102	2A-12B-[66A]		5CC#22	5CC#28	2A-5A-30A-[66A]-[66A]		
3CC#103	30A-[66A]-[66A]		4CC#111	4CC#103	[2A]-12B-66A		5CC#23	5CC#29	2A-5A-[30A]-66A-66A		
3CC#104	[30A]-66A-66A		4CC#112	4CC#104	[2A]-12B-[66A]		5CC#24	5CC#30	2A-5A-[30A]-[66A]-66A		
3CC#105	[30A]-[66A]-66A		4CC#113	4CC#105	2A-13A-[66A]-66A		5CC#76	5CC#31	2A-5A-[30A]-[66A]-[66A]		
3CC#106	[30A]-[66A]-[66A]		4CC#114	4CC#106	2A-13A-[66A]-[66A]		5CC#77	5CC#32	[2A]-5A-30A-66A-66A		
3CC#107	[66A]-66A-71A		4CC#121	4CC#107	[2A]-13A-66A-66A		5CC#78	5CC#33	[2A]-5A-30A-[66A]-66A		
3CC#108	[66A]-[66A]-71A		4CC#122	4CC#108	[2A]-13A-[66A]-66A		5CC#79	5CC#34	[2A]-5A-30A-[66A]-[66A]		
3CC#109	[66C]-71A		4CC#283	4CC#109	[2A]-13A-[66A]-[66A]		5CC#80	5CC#35	[2A]-5A-[30A]-66A-66A		
3CC#110	[2A]-2A-14A		4CC#151	4CC#110	2A-30A-[66A]-66A		5CC#27	5CC#36	[2A]-5A-[30A]-[66A]-66A		
3CC#111	[2A]-[2A]-14A		4CC#153	4CC#111	2A-30A-[66A]-[66A]		5CC#28	5CC#37	[2A]-5A-[30A]-[66A]-[66A]		
3CC#112	[2A]-2A-29A	B29 SCC Only	4CC#161	4CC#112	2A-[30A]-66A-66A		5CC#29	5CC#38	2A-12A-30A-[66A]-66A		
3CC#113	[2A]-[2A]-29A	B29 SCC Only	4CC#163	4CC#113	2A-[30A]-[66A]-66A		5CC#30	5CC#39	2A-12A-30A-[66A]-[66A]		
3CC#114	2A-2A-[30A]		4CC#140	4CC#114	2A-[30A]-[66A]-[66A]		5CC#31	5CC#40	2A-12A-[30A]-66A-66A		
3CC#115	[2A]-2A-30A		4CC#141	4CC#115	[2A]-30A-66A-66A		5CC#32	5CC#41	2A-12A-[30A]-[66A]-66A		
3CC#116	[2A]-2A-[30A]		4CC#142	4CC#116	[2A]-30A-[66A]-66A		5CC#33	5CC#42	2A-12A-[30A]-[66A]-[66A]		
3CC#117	[2A]-[2A]-30A		4CC#143	4CC#117	[2A]-30A-[66A]-[66A]		5CC#34	5CC#43	[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	3CC	Restriction	Completely Covered by Measurement Superset	Index	4CC	Restriction	Completely Covered by Measurement Superset	Index	5CC	Restriction	Completely Covered by Measurement Superset
3CC#118	[2A]-[2A]-[30A]		4CC#144	4CC#118	[2A]-[30A]-66A-66A		5CC#35	5CC#44	[2A]-12A-30A-[66A]-66A		
3CC#119	2A-[4A]-13A			4CC#119	[2A]-[30A]-[66A]-66A		5CC#36	5CC#45	[2A]-12A-30A-[66A]-[66A]		
3CC#120	[2A]-4A-13A			4CC#120	[2A]-[30A]-[66A]-[66A]		5CC#37	5CC#46	[2A]-12A-[30A]-66A-66A		
3CC#121	[2A]-[4A]-13A			4CC#121	2A-[66A]-66A-71A			5CC#47	[2A]-12A-[30A]-[66A]-66A		
3CC#122	2A-5A-[48A]	B48 SCC Only	4CC#187	4CC#122	2A-[66A]-[66A]-71A			5CC#48	[2A]-12A-[30A]-[66A]-[66A]		
3CC#123	[2A]-5A-48A	B48 SCC Only	4CC#189	4CC#123	[2A]-66A-66A-71A			5CC#49	2A-2A-5A-30A-[66A]		
3CC#124	[2A]-5A-[48A]	B48 SCC Only	4CC#191	4CC#124	[2A]-[66A]-66A-71A			5CC#50	2A-2A-5A-[30A]-66A		
3CC#125	2A-13A-[48A]	B48 SCC Only	4CC#200	4CC#125	[2A]-[66A]-[66A]-71A			5CC#51	2A-2A-5A-[30A]-[66A]		
3CC#126	[2A]-13A-48A	B48 SCC Only	4CC#202	4CC#126	[4A]-4A-12B			5CC#52	[2A]-2A-5A-30A-66A		
3CC#127	[2A]-13A-[48A]	B48 SCC Only	4CC#204	4CC#127	[4A]-[4A]-12B			5CC#53	[2A]-2A-5A-30A-[66A]		
3CC#128	2A-14A-[30A]		4CC#150	4CC#128	5A-30A-[66A]-66A		5CC#27	5CC#54	[2A]-2A-5A-[30A]-66A		
3CC#129	[2A]-14A-30A		4CC#151	4CC#129	5A-30A-[66A]-[66A]		5CC#28	5CC#55	[2A]-2A-5A-[30A]-[66A]		
3CC#130	[2A]-14A-[30A]		4CC#152	4CC#130	5A-[30A]-66A-66A		5CC#29	5CC#56	[2A]-[2A]-5A-30A-66A		
3CC#131	2A-14A-[66A]		4CC#155	4CC#131	5A-[30A]-[66A]-66A		5CC#30	5CC#57	[2A]-[2A]-5A-30A-[66A]		
3CC#132	[2A]-14A-66A		4CC#156	4CC#132	5A-[30A]-[66A]-[66A]		5CC#31	5CC#58	[2A]-[2A]-5A-[30A]-66A		
3CC#133	[2A]-14A-[66A]		4CC#157	4CC#133	12A-30A-[66A]-66A		5CC#38	5CC#59	[2A]-[2A]-5A-[30A]-[66A]		
3CC#134	2A-[48A]-48A	B48 SCC Only	4CC#240	4CC#134	12A-30A-[66A]-[66A]		5CC#39	5CC#60	2A-2A-5A-[66B]		
3CC#135	2A-[48A]-[48A]	B48 SCC Only	4CC#242	4CC#135	12A-[30A]-66A-66A		5CC#40	5CC#61	[2A]-2A-5A-66B		
3CC#136	[2A]-48A-48A	B48 SCC Only	4CC#244	4CC#136	12A-[30A]-[66A]-66A		5CC#41	5CC#62	[2A]-2A-5A-[66B]		
3CC#137	[2A]-[48A]-48A	B48 SCC Only	4CC#246	4CC#137	12A-[30A]-[66A]-[66A]		5CC#42	5CC#63	[2A]-[2A]-5A-66B		
3CC#138	[2A]-[48A]-[48A]	B48 SCC Only	4CC#248	4CC#138	12B-[66A]-66A		5CC#124	5CC#64	[2A]-[2A]-5A-[66B]		
3CC#139	2A-48A-[66A]	B48 SCC Only	4CC#186	4CC#139	12B-[66A]-[66A]		5CC#125	5CC#65	2A-2A-12A-30A-[66A]		
3CC#140	2A-[48A]-66A	B48 SCC Only	4CC#187	4CC#140	2A-2A-5A-[30A]		5CC#50	5CC#66	2A-2A-12A-[30A]-66A		
3CC#141	2A-[48A]-[66A]	B48 SCC Only	4CC#188	4CC#141	[2A]-2A-5A-30A		5CC#52	5CC#67	2A-2A-12A-[30A]-[66A]		
3CC#142	[2A]-48A-66A	B48 SCC Only	4CC#189	4CC#142	[2A]-2A-5A-[30A]		5CC#54	5CC#68	[2A]-2A-12A-30A-66A		
3CC#143	[2A]-48A-[66A]	B48 SCC Only	4CC#190	4CC#143	[2A]-[2A]-5A-30A		5CC#56	5CC#69	[2A]-2A-12A-30A-[66A]		
3CC#144	[2A]-[48A]-66A	B48 SCC Only	4CC#191	4CC#144	[2A]-[2A]-5A-[30A]		5CC#58	5CC#70	[2A]-2A-12A-[30A]-66A		
3CC#145	[2A]-[48A]-[66A]	B48 SCC Only	4CC#192	4CC#145	2A-2A-12A-[30A]		5CC#66	5CC#71	[2A]-2A-12A-[30A]-[66A]		
3CC#146	2A-[48C]	B48 SCC Only	4CC#193	4CC#146	[2A]-2A-12A-30A		5CC#68	5CC#72	[2A]-[2A]-12A-30A-66A		
3CC#147	[2A]-48C	B48 SCC Only	4CC#194	4CC#147	[2A]-2A-12A-[30A]		5CC#70	5CC#73	[2A]-[2A]-12A-30A-[66A]		
3CC#148	[2A]-[48C]	B48 SCC Only	4CC#195	4CC#148	[2A]-[2A]-12A-30A		5CC#72	5CC#74	[2A]-[2A]-12A-[30A]-66A		
3CC#149	2C-[66A]		4CC#278	4CC#149	[2A]-[2A]-12A-[30A]		5CC#74	5CC#75	[2A]-[2A]-12A-[30A]-[66A]		
3CC#150	[2C]-66A		4CC#280	4CC#150	2A-2A-14A-[30A]		5CC#85	5CC#76	2A-2A-13A-[66A]-66A		
3CC#151	[2C]-[66A]		4CC#281	4CC#151	[2A]-2A-14A-30A		5CC#87	5CC#77	2A-2A-13A-[66A]-[66A]		
3CC#152	4A-[48C]	B48 SCC Only		4CC#152	[2A]-2A-14A-[30A]		5CC#89	5CC#78	[2A]-2A-13A-66A-66A		
3CC#153	[4A]-48C	B48 SCC Only		4CC#153	[2A]-[2A]-14A-30A		5CC#91	5CC#79	[2A]-2A-13A-[66A]-66A		
3CC#154	[4A]-[48C]	B48 SCC Only		4CC#154	[2A]-[2A]-14A-[30A]		5CC#93	5CC#80	[2A]-2A-13A-[66A]-[66A]		
3CC#155	5A-48A-[66A]	B48 SCC Only	4CC#186	4CC#155	2A-2A-14A-[66A]		5CC#84	5CC#81	[2A]-[2A]-13A-66A-66A		
3CC#156	5A-[48A]-66A	B48 SCC Only	4CC#187	4CC#156	[2A]-2A-14A-66A		5CC#87	5CC#82	[2A]-[2A]-13A-[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#157	5A-[48A]-[66A]	B48 SCC Only	4CC#188	4CC#157	[2A]-2A-14A-[66A]		5CC#88	5CC#83	[2A]-[2A]-13A-[66A]-[66A]		
3CC#158	5A-[48C]	B48 SCC Only	4CC#193	4CC#158	[2A]-[2A]-14A-66A		5CC#91	5CC#84	2A-2A-14A-30A-[66A]		
3CC#159	5A-[66B]		4CC#196	4CC#159	[2A]-[2A]-14A-[66A]		5CC#92	5CC#85	2A-2A-14A-[30A]-66A		
3CC#160	13A-48A-[66A]	B48 SCC Only	4CC#199	4CC#160	2A-2A-29A-[30A]	B29 SCC Only		5CC#86	2A-2A-14A-[30A]-[66A]		
3CC#161	13A-[48A]-66A	B48 SCC Only	4CC#200	4CC#161	[2A]-2A-29A-30A	B29 SCC Only		5CC#87	[2A]-2A-14A-30A-66A		
3CC#162	13A-[48A]-[66A]	B48 SCC Only	4CC#201	4CC#162	[2A]-2A-29A-[30A]	B29 SCC Only		5CC#88	[2A]-2A-14A-30A-[66A]		
3CC#163	13A-[48B]	B48 SCC Only		4CC#163	[2A]-[2A]-29A-30A	B29 SCC Only		5CC#89	[2A]-2A-14A-[30A]-66A		
3CC#164	13A-[48C]	B48 SCC Only	4CC#206	4CC#164	[2A]-[2A]-29A-[30A]	B29 SCC Only		5CC#90	[2A]-2A-14A-[30A]-[66A]		
3CC#165	14A-30A-[66A]		4CC#215	4CC#165	2A-2A-29A-[66A]	B29 SCC Only		5CC#91	[2A]-[2A]-14A-30A-66A		
3CC#166	14A-[30A]-66A		4CC#216	4CC#166	[2A]-2A-29A-66A	B29 SCC Only		5CC#92	[2A]-[2A]-14A-30A-[66A]		
3CC#167	14A-[30A]-[66A]		4CC#217	4CC#167	[2A]-2A-29A-[66A]	B29 SCC Only		5CC#93	[2A]-[2A]-14A-[30A]-66A		
3CC#168	14A-[66A]-66A		4CC#222	4CC#168	[2A]-[2A]-29A-66A	B29 SCC Only		5CC#94	[2A]-[2A]-14A-[30A]-[66A]		
3CC#169	14A-[66A]-[66A]		4CC#223	4CC#169	[2A]-[2A]-29A-[66A]	B29 SCC Only		5CC#95	2A-2A-14A-[66A]-66A		
3CC#170	25A-[41C]	B41 SCC Only		4CC#170	2A-2A-30A-[66A]		5CC#49	5CC#96	2A-2A-14A-[66A]-[66A]		
3CC#171	[25A]-41C	B41 SCC Only		4CC#171	2A-2A-[30A]-66A		5CC#50	5CC#97	[2A]-2A-14A-66A-66A		
3CC#172	[25A]-[41C]	B41 SCC Only		4CC#172	2A-2A-[30A]-[66A]		5CC#51	5CC#98	[2A]-2A-14A-[66A]-66A		
3CC#173	29A-30A-[66A]	B29 SCC Only	4CC#227	4CC#173	[2A]-2A-30A-66A		5CC#52	5CC#99	[2A]-2A-14A-[66A]-[66A]		
3CC#174	29A-[30A]-66A	B29 SCC Only	4CC#228	4CC#174	[2A]-2A-30A-[66A]		5CC#53	5CC#100	[2A]-[2A]-14A-66A-66A		
3CC#175	29A-[30A]-[66A]	B29 SCC Only	4CC#229	4CC#175	[2A]-2A-[30A]-66A		5CC#54	5CC#101	[2A]-[2A]-14A-[66A]-66A		
3CC#176	29A-[66A]-66A	B29 SCC Only	4CC#234	4CC#176	[2A]-2A-[30A]-[66A]		5CC#55	5CC#102	[2A]-[2A]-14A-[66A]-[66A]		
3CC#177	29A-[66A]-[66A]	B29 SCC Only	4CC#235	4CC#177	[2A]-[2A]-30A-66A		5CC#56	5CC#103	2A-5A-48A-[66A]-66A	B48 SCC Only	
3CC#178	41A-[41C]			4CC#178	[2A]-[2A]-30A-[66A]		5CC#57	5CC#104	2A-5A-48A-[66A]-[66A]	B48 SCC Only	
3CC#179	[41A]-41C			4CC#179	[2A]-[2A]-[30A]-66A		5CC#58	5CC#105	2A-5A-[48A]-66A-66A	B48 SCC Only	
3CC#180	[41A]-[41C]			4CC#180	[2A]-[2A]-[30A]-[66A]		5CC#59	5CC#106	2A-5A-[48A]-[66A]-66A	B48 SCC Only	
3CC#181	[41D]			4CC#181	2A-2A-[66B]		5CC#60	5CC#107	2A-5A-[48A]-[66A]-[66A]	B48 SCC Only	
3CC#182	48A-48A-[66A]	B48 SCC Only	4CC#239	4CC#182	[2A]-2A-66B		5CC#61	5CC#108	[2A]-5A-48A-66A-66A	B48 SCC Only	
3CC#183	[48A]-48A-66A	B48 SCC Only	4CC#240	4CC#183	[2A]-2A-[66B]		5CC#62	5CC#109	[2A]-5A-48A-[66A]-66A	B48 SCC Only	
3CC#184	[48A]-48A-[66A]	B48 SCC Only	4CC#241	4CC#184	[2A]-[2A]-66B		5CC#63	5CC#110	[2A]-5A-48A-[66A]-[66A]	B48 SCC Only	
3CC#185	[48A]-[48A]-66A	B48 SCC Only	4CC#242	4CC#185	[2A]-[2A]-[66B]		5CC#64	5CC#111	[2A]-5A-[48A]-66A-66A	B48 SCC Only	
3CC#186	[48A]-[48A]-[66A]	B48 SCC Only	4CC#243	4CC#186	2A-5A-48A-[66A]	B48 SCC Only	5CC#103	5CC#112	[2A]-5A-[48A]-[66A]-66A	B48 SCC Only	
3CC#187	[48A]-48A-71A	B48 SCC Only		4CC#187	2A-5A-[48A]-66A	B48 SCC Only	5CC#105	5CC#113	[2A]-5A-[48A]-[66A]-[66A]	B48 SCC Only	
3CC#188	[48A]-[48A]-71A	B48 SCC Only		4CC#188	2A-5A-[48A]-[66A]	B48 SCC Only	5CC#106	5CC#114	2A-5A-48C-[66A]	B48 SCC Only	6CC#1
3CC#189	48A-[48C]			4CC#189	[2A]-5A-48A-66A	B48 SCC Only	5CC#108	5CC#115	2A-5A-[48C]-66A	B48 SCC Only	6CC#3
3CC#190	[48A]-48C			4CC#190	[2A]-5A-48A-[66A]	B48 SCC Only	5CC#109	5CC#116	2A-5A-[48C]-[66A]	B48 SCC Only	6CC#4
3CC#191	[48A]-[48C]			4CC#191	[2A]-5A-[48A]-66A	B48 SCC Only	5CC#111	5CC#117	[2A]-5A-48C-66A	B48 SCC Only	6CC#6
3CC#192	48A-[66A]-66A	B48 SCC Only	4CC#257	4CC#192	[2A]-5A-[48A]-[66A]	B48 SCC Only	5CC#112	5CC#118	[2A]-5A-48C-[66A]	B48 SCC Only	6CC#7
3CC#193	48A-[66A]-[66A]	B48 SCC Only	4CC#258	4CC#193	2A-5A-[48C]	B48 SCC Only	5CC#115	5CC#119	[2A]-5A-[48C]-66A	B48 SCC Only	6CC#9
3CC#194	[48A]-66A-66A	B48 SCC Only	4CC#259	4CC#194	[2A]-5A-48C	B48 SCC Only	5CC#117	5CC#120	[2A]-5A-[48C]-[66A]	B48 SCC Only	6CC#10

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#195	[48A]-[66A]-66A	B48 SCC Only	4CC#260	4CC#195	[2A]-5A-[48C]	B48 SCC Only	5CC#119	5CC#121	2A-5A-[48D]	B48 SCC Only	
3CC#196	[48A]-[66A]-[66A]	B48 SCC Only	4CC#261	4CC#196	2A-5A-[66B]		5CC#60	5CC#122	[2A]-5A-48D	B48 SCC Only	
3CC#197	48A-[66B]	B48 SCC Only	4CC#298	4CC#197	[2A]-5A-66B		5CC#61	5CC#123	[2A]-5A-[48D]	B48 SCC Only	
3CC#198	[48A]-66B	B48 SCC Only	4CC#299	4CC#198	[2A]-5A-[66B]		5CC#62	5CC#124	2A-12B-[66A]-66A		
3CC#199	[48A]-[66B]	B48 SCC Only	4CC#300	4CC#199	2A-13A-48A-[66A]	B48 SCC Only		5CC#125	2A-12B-[66A]-[66A]		
3CC#200	48A-[66C]	B48 SCC Only	4CC#301	4CC#200	2A-13A-[48A]-66A	B48 SCC Only		5CC#126	[2A]-12B-66A-66A		
3CC#201	[48A]-66C	B48 SCC Only	4CC#302	4CC#201	2A-13A-[48A]-[66A]	B48 SCC Only		5CC#127	[2A]-12B-[66A]-66A		
3CC#202	[48A]-[66C]	B48 SCC Only	4CC#303	4CC#202	[2A]-13A-48A-66A	B48 SCC Only		5CC#128	[2A]-12B-[66A]-[66A]		
3CC#203	48B-[66A]	B48 SCC Only		4CC#203	[2A]-13A-48A-[66A]	B48 SCC Only		5CC#129	2A-13A-48C-[66A]	B48 SCC Only	
3CC#204	[48B]-66A	B48 SCC Only		4CC#204	[2A]-13A-[48A]-66A	B48 SCC Only		5CC#130	2A-13A-[48C]-66A	B48 SCC Only	
3CC#205	[48B]-[66A]	B48 SCC Only		4CC#205	[2A]-13A-[48A]-[66A]	B48 SCC Only		5CC#131	2A-13A-[48C]-[66A]	B48 SCC Only	
3CC#206	48C-[66A]	B48 SCC Only	4CC#268	4CC#206	2A-13A-[48C]	B48 SCC Only	5CC#130	5CC#132	[2A]-13A-48C-66A	B48 SCC Only	
3CC#207	[48C]-66A	B48 SCC Only	4CC#269	4CC#207	[2A]-13A-48C	B48 SCC Only	5CC#132	5CC#133	[2A]-13A-48C-[66A]	B48 SCC Only	
3CC#208	[48C]-[66A]	B48 SCC Only	4CC#270	4CC#208	[2A]-13A-[48C]	B48 SCC Only	5CC#134	5CC#134	[2A]-13A-[48C]-66A	B48 SCC Only	
3CC#209	[48C]-71A	B48 SCC Only		4CC#209	2A-13A-[66B]			5CC#135	[2A]-13A-[48C]-[66A]	B48 SCC Only	
3CC#210	[48D]		4CC#336	4CC#210	[2A]-13A-66B			5CC#136	2A-13A-[48D]	B48 SCC Only	
				4CC#211	[2A]-13A-[66B]			5CC#137	[2A]-13A-48D	B48 SCC Only	
				4CC#212	2A-13A-[66C]			5CC#138	[2A]-13A-[48D]	B48 SCC Only	
				4CC#213	[2A]-13A-66C			5CC#139	2A-14A-30A-[66A]-66A		
				4CC#214	[2A]-13A-[66C]			5CC#140	2A-14A-30A-[66A]-[66A]		
				4CC#215	2A-14A-30A-[66A]		5CC#84	5CC#141	2A-14A-[30A]-66A-66A		
				4CC#216	2A-14A-[30A]-66A		5CC#85	5CC#142	2A-14A-[30A]-[66A]-66A		
				4CC#217	2A-14A-[30A]-[66A]		5CC#86	5CC#143	2A-14A-[30A]-[66A]-[66A]		
				4CC#218	[2A]-14A-30A-66A		5CC#87	5CC#144	[2A]-14A-30A-66A-66A		
				4CC#219	[2A]-14A-30A-[66A]		5CC#88	5CC#145	[2A]-14A-30A-[66A]-66A		
				4CC#220	[2A]-14A-[30A]-66A		5CC#89	5CC#146	[2A]-14A-30A-[66A]-[66A]		
				4CC#221	[2A]-14A-[30A]-[66A]		5CC#90	5CC#147	[2A]-14A-[30A]-66A-66A		
				4CC#222	2A-14A-[66A]-66A		5CC#95	5CC#148	[2A]-14A-[30A]-[66A]-66A		
				4CC#223	2A-14A-[66A]-[66A]		5CC#96	5CC#149	[2A]-14A-[30A]-[66A]-[66A]		
				4CC#224	[2A]-14A-66A-66A		5CC#97	5CC#150	2A-48A-48C-[66A]	B48 SCC Only	
				4CC#225	[2A]-14A-[66A]-66A		5CC#98	5CC#151	2A-48A-[48C]-66A	B48 SCC Only	
				4CC#226	[2A]-14A-[66A]-[66A]		5CC#99	5CC#152	2A-48A-[48C]-[66A]	B48 SCC Only	
				4CC#227	2A-29A-30A-[66A]	B29 SCC Only		5CC#153	2A-[48A]-48C-66A	B48 SCC Only	
				4CC#228	2A-29A-[30A]-66A	B29 SCC Only		5CC#154	2A-[48A]-48C-[66A]	B48 SCC Only	
				4CC#229	2A-29A-[30A]-[66A]	B29 SCC Only		5CC#155	2A-[48A]-[48C]-66A	B48 SCC Only	
				4CC#230	[2A]-29A-30A-66A	B29 SCC Only		5CC#156	2A-[48A]-[48C]-[66A]	B48 SCC Only	
				4CC#231	[2A]-29A-30A-[66A]	B29 SCC Only		5CC#157	[2A]-48A-48C-66A	B48 SCC Only	
				4CC#232	[2A]-29A-[30A]-66A	B29 SCC Only		5CC#158	[2A]-48A-48C-[66A]	B48 SCC Only	
				4CC#233	[2A]-29A-[30A]-[66A]	B29 SCC Only		5CC#159	[2A]-48A-[48C]-66A	B48 SCC Only	
				4CC#234	2A-29A-[66A]-66A	B29 SCC Only		5CC#160	[2A]-48A-[48C]-[66A]	B48 SCC Only	
				4CC#235	2A-29A-[66A]-[66A]	B29 SCC Only		5CC#161	[2A]-[48A]-48C-66A	B48 SCC Only	
				4CC#236	[2A]-29A-66A-66A	B29 SCC Only		5CC#162	[2A]-[48A]-48C-[66A]	B48 SCC Only	
				4CC#237	[2A]-29A-[66A]-66A	B29 SCC Only		5CC#163	[2A]-[48A]-[48C]-66A	B48 SCC Only	
				4CC#238	[2A]-29A-[66A]-[66A]	B29 SCC Only		5CC#164	[2A]-[48A]-[48C]-[66A]	B48 SCC Only	
				4CC#239	2A-48A-48A-[66A]	B48 SCC Only		5CC#165	2A-[48C]-48C	B48 SCC Only	
				4CC#240	2A-[48A]-48A-66A	B48 SCC Only		5CC#166	2A-[48C]-[48C]	B48 SCC Only	
				4CC#241	2A-[48A]-48A-[66A]	B48 SCC Only		5CC#167	[2A]-48C-48C	B48 SCC Only	
				4CC#242	2A-[48A]-[48A]-66A	B48 SCC Only		5CC#168	[2A]-[48C]-48C	B48 SCC Only	
				4CC#243	2A-[48A]-[48A]-[66A]	B48 SCC Only		5CC#169	[2A]-[48C]-[48C]	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 (Continued)

Index	4CC	Restriction	Completely Covered by Measurement Superset	Index	5CC	Restriction	Completely Covered by Measurement Superset	Index	6CC	Restriction	Completely Covered by Measurement Superset
4CC#244	[2A]-48A-48A-66A	B48 SCC Only		5CC#170	2A-48C-[66A]-66A	B48 SCC Only	6CC#1	6CC#1	2A-5A-48C-[66A]-66A	B48 SCC Only	
4CC#245	[2A]-48A-48A-[66A]	B48 SCC Only		5CC#171	2A-48C-[66A]-[66A]	B48 SCC Only	6CC#2	6CC#2	2A-5A-48C-[66A]-[66A]	B48 SCC Only	
4CC#246	[2A]-[48A]-48A-66A	B48 SCC Only		5CC#172	2A-[48C]-66A-66A	B48 SCC Only	6CC#3	6CC#3	2A-5A-[48C]-66A-66A	B48 SCC Only	
4CC#247	[2A]-[48A]-48A-[66A]	B48 SCC Only		5CC#173	2A-[48C]-[66A]-66A	B48 SCC Only	6CC#4	6CC#4	2A-5A-[48C]-[66A]-66A	B48 SCC Only	
4CC#248	[2A]-[48A]-[48A]-66A	B48 SCC Only		5CC#174	2A-[48C]-[66A]-[66A]	B48 SCC Only	6CC#5	6CC#5	2A-5A-[48C]-[66A]-[66A]	B48 SCC Only	
4CC#249	[2A]-[48A]-[48A]-[66A]	B48 SCC Only		5CC#175	[2A]-48C-66A-66A	B48 SCC Only	6CC#6	6CC#6	[2A]-5A-48C-66A-66A	B48 SCC Only	
4CC#250	2A-48A-[48C]	B48 SCC Only	5CC#151	5CC#176	[2A]-48C-[66A]-66A	B48 SCC Only	6CC#7	6CC#7	[2A]-5A-48C-[66A]-66A	B48 SCC Only	
4CC#251	2A-[48A]-48C	B48 SCC Only	5CC#153	5CC#177	[2A]-48C-[66A]-[66A]	B48 SCC Only	6CC#8	6CC#8	[2A]-5A-48C-[66A]-[66A]	B48 SCC Only	
4CC#252	2A-[48A]-[48C]	B48 SCC Only	5CC#155	5CC#178	[2A]-[48C]-66A-66A	B48 SCC Only	6CC#9	6CC#9	[2A]-5A-[48C]-66A-66A	B48 SCC Only	
4CC#253	[2A]-48A-48C	B48 SCC Only	5CC#157	5CC#179	[2A]-[48C]-[66A]-66A	B48 SCC Only	6CC#10	6CC#10	[2A]-5A-[48C]-[66A]-66A	B48 SCC Only	
4CC#254	[2A]-48A-[48C]	B48 SCC Only	5CC#159	5CC#180	[2A]-[48C]-[66A]-[66A]	B48 SCC Only					
4CC#255	[2A]-[48A]-48C	B48 SCC Only	5CC#161	5CC#181	2A-48D-[66A]	B48 SCC Only					
4CC#256	[2A]-[48A]-[48C]	B48 SCC Only	5CC#163	5CC#182	2A-[48D]-66A	B48 SCC Only					
4CC#257	2A-48A-[66A]-66A	B48 SCC Only	5CC#103	5CC#183	2A-[48D]-[66A]	B48 SCC Only					
4CC#258	2A-48A-[66A]-[66A]	B48 SCC Only	5CC#104	5CC#184	[2A]-48D-66A	B48 SCC Only					
4CC#259	2A-[48A]-66A-66A	B48 SCC Only	5CC#105	5CC#185	[2A]-48D-[66A]	B48 SCC Only					
4CC#260	2A-[48A]-[66A]-66A	B48 SCC Only	5CC#106	5CC#186	[2A]-[48D]-66A	B48 SCC Only					
4CC#261	2A-[48A]-[66A]-[66A]	B48 SCC Only	5CC#107	5CC#187	[2A]-[48D]-[66A]	B48 SCC Only					
4CC#262	[2A]-48A-66A-66A	B48 SCC Only	5CC#108	5CC#188	2A-[48E]	B48 SCC Only	6CC#12	6CC#12			
4CC#263	[2A]-48A-[66A]-66A	B48 SCC Only	5CC#109	5CC#189	[2A]-48E	B48 SCC Only	6CC#13	6CC#13			
4CC#264	[2A]-48A-[66A]-[66A]	B48 SCC Only	5CC#110	5CC#190	[2A]-[48E]	B48 SCC Only					
4CC#265	[2A]-[48A]-66A-66A	B48 SCC Only	5CC#111	5CC#191	4A-[48E]						
4CC#266	[2A]-[48A]-[66A]-66A	B48 SCC Only	5CC#112	5CC#192	[4A]-48E						
4CC#267	[2A]-[48A]-[66A]-[66A]	B48 SCC Only	5CC#113	5CC#193	[4A]-[48E]						
4CC#268	2A-48C-[66A]	B48 SCC Only	5CC#114	5CC#194	5A-48C-[66A]-66A	B48 SCC Only	6CC#1	6CC#1			
4CC#269	2A-[48C]-66A	B48 SCC Only	5CC#115	5CC#195	5A-48C-[66A]-[66A]	B48 SCC Only	6CC#2	6CC#2			
4CC#270	2A-[48C]-[66A]	B48 SCC Only	5CC#116	5CC#196	5A-[48C]-66A-66A	B48 SCC Only	6CC#3	6CC#3			
4CC#271	[2A]-48C-66A	B48 SCC Only	5CC#117	5CC#197	5A-[48C]-[66A]-66A	B48 SCC Only	6CC#4	6CC#4			
4CC#272	[2A]-48C-[66A]	B48 SCC Only	5CC#118	5CC#198	5A-[48C]-[66A]-[66A]	B48 SCC Only	6CC#5	6CC#5			
4CC#273	[2A]-[48C]-66A	B48 SCC Only	5CC#119	5CC#199	5A-48D-[66A]	B48 SCC Only	6CC#15	6CC#15			
4CC#274	[2A]-[48C]-[66A]	B48 SCC Only	5CC#120	5CC#200	5A-[48D]-66A	B48 SCC Only	6CC#17	6CC#17			
4CC#275	2A-[48D]	B48 SCC Only	5CC#121	5CC#201	5A-[48D]-[66A]	B48 SCC Only	6CC#18	6CC#18			
4CC#276	[2A]-48D	B48 SCC Only	5CC#122	5CC#202	13A-48D-[66A]	B48 SCC Only					
4CC#277	[2A]-[48D]	B48 SCC Only	5CC#123	5CC#203	13A-[48D]-66A	B48 SCC Only					
4CC#278	2C-[66A]-66A			5CC#204	13A-[48D]-[66A]	B48 SCC Only					
4CC#279	2C-[66A]-[66A]			5CC#205	13A-[48E]	B48 SCC Only	6CC#20	6CC#20			
4CC#280	[2C]-66A-66A			5CC#206	48C-48C-[66A]	B48 SCC Only					
4CC#281	[2C]-[66A]-66A			5CC#207	[48C]-48C-66A	B48 SCC Only					
4CC#282	[2C]-[66A]-[66A]			5CC#208	[48C]-48C-[66A]	B48 SCC Only					
4CC#283	2A-[66C]-71A			5CC#209	[48C]-[48C]-66A	B48 SCC Only					
4CC#284	[2A]-66C-71A			5CC#210	[48C]-[48C]-[66A]	B48 SCC Only					
4CC#285	[2A]-[66C]-71A			5CC#211	48A-48D-[66A]	B48 SCC Only					
4CC#286	4A-[48D]	B48 SCC Only		5CC#212	48A-[48D]-66A	B48 SCC Only					
4CC#287	[4A]-48D	B48 SCC Only		5CC#213	48A-[48D]-[66A]	B48 SCC Only					
4CC#288	[4A]-[48D]	B48 SCC Only		5CC#214	[48A]-48D-66A	B48 SCC Only					
4CC#289	5A-48A-[66A]-66A	B48 SCC Only	5CC#103	5CC#215	[48A]-48D-[66A]	B48 SCC Only					
4CC#290	5A-48A-[66A]-[66A]	B48 SCC Only	5CC#104	5CC#216	[48A]-[48D]-66A	B48 SCC Only					
4CC#291	5A-[48A]-66A-66A	B48 SCC Only	5CC#105	5CC#217	[48A]-[48D]-[66A]	B48 SCC Only					
4CC#292	5A-[48A]-[66A]-66A	B48 SCC Only	5CC#106	5CC#218	48A-[48E]						
4CC#293	5A-[48A]-[66A]-[66A]	B48 SCC Only	5CC#107	5CC#219	[48A]-48E						
4CC#294	5A-48C-[66A]	B48 SCC Only	5CC#114	5CC#216	[48A]-[48D]-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 (Continued)

Index	4CC	Restriction	Completely Covered by Measurement Superset	Index	5CC	Restriction	Completely Covered by Measurement Superset
4CC#295	5A-[48C]-66A	B48 SCC Only	5CC#115	5CC#217	[48A]-[48D]-[66A]	B48 SCC Only	
4CC#296	5A-[48C]-[66A]	B48 SCC Only	5CC#116	5CC#218	48A-[48E]		
4CC#297	5A-[48D]	B48 SCC Only	5CC#121	5CC#219	[48A]-48E		
4CC#298	13A-48A-[66B]	B48 SCC Only		5CC#220	[48A]-[48E]		
4CC#299	13A-[48A]-66B	B48 SCC Only		5CC#221	48C-[48D]		
4CC#300	13A-[48A]-[66B]	B48 SCC Only		5CC#222	[48C]-48D		
4CC#301	13A-48A-[66C]	B48 SCC Only		5CC#223	[48C]-[48D]		
4CC#302	13A-[48A]-66C	B48 SCC Only		5CC#224	48E-[66A]		6CC#11
4CC#303	13A-[48A]-[66C]	B48 SCC Only		5CC#225	[48E]-66A		6CC#12
4CC#304	13A-48C-[66A]	B48 SCC Only	5CC#129	5CC#226	[48E]-[66A]		
4CC#305	13A-[48C]-66A	B48 SCC Only	5CC#130				
4CC#306	13A-[48C]-[66A]	B48 SCC Only	5CC#131				
4CC#307	13A-[48D]	B48 SCC Only	5CC#136				
4CC#308	14A-30A-[66A]-66A		5CC#139				
4CC#309	14A-30A-[66A]-[66A]		5CC#140				
4CC#310	14A-[30A]-66A-66A		5CC#141				
4CC#311	14A-[30A]-[66A]-66A		5CC#142				
4CC#312	14A-[30A]-[66A]-[66A]		5CC#143				
4CC#313	25A-[41D]	B41 SCC Only					
4CC#314	[25A]-41D	B41 SCC Only					
4CC#315	[25A]-[41D]	B41 SCC Only					
4CC#316	29A-30A-[66A]-66A	B29 SCC Only					
4CC#317	29A-30A-[66A]-[66A]	B29 SCC Only					
4CC#318	29A-[30A]-66A-66A	B29 SCC Only					
4CC#319	29A-[30A]-[66A]-66A	B29 SCC Only					
4CC#320	29A-[30A]-[66A]-[66A]	B29 SCC Only					
4CC#321	48A-48A-[66A]-66A	B48 SCC Only					
4CC#322	48A-48A-[66A]-[66A]	B48 SCC Only					
4CC#323	[48A]-48A-66A-66A	B48 SCC Only					
4CC#324	[48A]-48A-[66A]-66A	B48 SCC Only					
4CC#325	[48A]-48A-[66A]-[66A]	B48 SCC Only					
4CC#326	[48A]-[48A]-66A-66A	B48 SCC Only					
4CC#327	[48A]-[48A]-[66A]-66A	B48 SCC Only					
4CC#328	[48A]-[48A]-[66A]-[66A]	B48 SCC Only					
4CC#329	48A-48C-[66A]	B48 SCC Only	5CC#150				
4CC#330	48A-[48C]-66A	B48 SCC Only	5CC#151				
4CC#331	48A-[48C]-[66A]	B48 SCC Only	5CC#152				
4CC#332	[48A]-48C-66A	B48 SCC Only	5CC#153				
4CC#333	[48A]-48C-[66A]	B48 SCC Only	5CC#154				
4CC#334	[48A]-[48C]-66A	B48 SCC Only	5CC#155				
4CC#335	[48A]-[48C]-[66A]	B48 SCC Only	5CC#156				
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#170				
4CC#342	48C-[66A]-[66A]	B48 SCC Only	5CC#171				
4CC#343	[48C]-66A-66A	B48 SCC Only	5CC#172				
4CC#344	[48C]-[66A]-66A	B48 SCC Only	5CC#173				
4CC#345	[48C]-[66A]-[66A]	B48 SCC Only	5CC#174				
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#181				
4CC#353	[48D]-66A	B48 SCC Only	5CC#182				
4CC#354	[48D]-[66A]	B48 SCC Only	5CC#183				
4CC#355	[48E]		5CC#218				

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	1/49	24.12	24.11	-0.01
4	QPSK	20	20300	1745	1/49	23.91	23.88	-0.03
25	QPSK	20	26140	1860	1/0	24.07	24.01	-0.06
30	QPSK	10	27710	2310	1/25	23.01	22.97	-0.04
41	QPSK	20	41055	2636.5	1/0	24.38	24.33	-0.05
48	QPSK	20	56640	3690	1/0	23.16	23.11	-0.05
66	QPSK	20	132572	1770	1/0	24.02	24.01	-0.01

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 output power results

E-UTRA CA configuration (BCS)	Bands							UL																DL																LTE Rel 8 Tx Power (dBm)	LTE Rel 10 Tx Power (dBm)	Delta											
	PCC	SCC1	SCC2	SCC3	SCC4	SCC5	SCC6	PCC				SCC1				SCC2				SCC3				SCC4				SCC5				SCC6																					
	1st	2nd	3rd	4th	5th	6th	7th	Band	Mode	BW (MHz)	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)	Band	BW (MHz)	Channel	Freq. (MHz)	Band	BW (MHz)	Channel	Freq. (MHz)															
4A-4A-13A	4A	4A	13A					4	QPSK	20	20050	1720	1	0	4	20	2050	2120	4	20	2300	2145	13	10	5230	751														23.81	23.74	-0.07											
	13A	4A	4A					13	QPSK	10	23230	782	1	25	13	10	5230	751	4	20	2050	2120	4	20	2300	2145																24.87	24.78	-0.09									
4A-4A-71A	4A	4A	71A					4	QPSK	20	20050	1720	1	0	4	20	2050	2120	4	20	2300	2145	71	20	68761	634.5																	23.81	23.81	0								
	71A	4A	4A					71	QPSK	20	133297	680.5	1	0	71	20	68761	634.5	4	20	2050	2120	4	20	2300	2145																	24.25	24.1	-0.15								
2A-2A-4A-4A	2A	2A	4A	4A				2	QPSK	20	18700	1860	1	49	2	20	700	1940	2	20	1100	1980	4	20	2050	2120	4	20	2300	2145														24.12	24.04	-0.08							
	4A	4A	2A	2A				4	QPSK	20	20050	1720	1	0	4	20	2050	2120	4	20	2300	2145	2	20	700	1940	2	20	1100	1980															23.81	23.69	-0.12						
2A-2A-4A-5A	2A	2A	4A	5A				2	QPSK	20	18700	1860	1	49	2	20	700	1940	2	20	1100	1980	4	20	2175	2132.5	5	10	2525	881.5																24.12	23.99	-0.13					
	4A	5A	2A	2A				4	QPSK	20	20175	1732.5	1	0	4	20	2175	2132.5	5	10	2525	881.5	2	20	700	1940	2	20	1100	1980															24.12	23.99	-0.13						
2A-2A-4A-12A	2A	2A	4A	12A				2	QPSK	20	18700	1860	1	49	2	20	700	1940	2	20	1100	1980	4	20	2175	2132.5	12	10	5095	737.5																		24.56	24.5	-0.06			
	4A	12A	2A	2A				4	QPSK	20	20175	1732.5	1	0	4	20	2175	2132.5	12	10	5095	737.5	2	20	700	1940	2	20	1100	1980															24.12	24.05	-0.07						
2A-2A-4A-71A	2A	2A	4A	71A				2	QPSK	20	18700	1860	1	49	2	20	700	1940	2	20	1100	1980	4	20	2175	2132.5	71	20	68761	634.5																		24.12	23.97	-0.15			
	4A	71A	2A	2A				4	QPSK	20	20175	1732.5	1	0	4	20	2175	2132.5	71	20	68761	634.5	2	20	700	1940	2	20	1100	1980																23.79	23.64	-0.15					
2A-4A-4A-5A	2A	4A	4A	5A				2	QPSK	20	18700	1860	1	49	2	20	700	1940	2	20	1100	1980	4	20	2175	2132.5	5	10	2525	881.5																		24.12	24.12	-0.13			
	4A	4A	5A	2A				4	QPSK	20	20050	1720	1	0	4	20	2050	2120	4	20	2300	2145	5	10	2525	881.5	2	20	700	1940																	23.81	23.78	-0.03				
2A-4A-4A-12A	2A	4A	4A	12A				2	QPSK	20	18700	1860	1	49	2	20	700	1940	2	20	1100	1980	4	20	2175	2132.5	12	10	5095	737.5																		24.56	24.47	-0.09			
	4A	4A	12A	2A				4	QPSK	20	20050	1720	1	0	4	20	2050	2120	4	20	2300	2145	2	20	700	1940	2	20	1100	1980																23.81	23.70	-0.11					
2A-4A-12B	2A	4A	12B	2A				2	QPSK	20	18700	1860	1	49	2	20	700	1940	2	20	1100	1980	4	20	2175	2132.5	12	5	5143	742.3																			24.12	24.06	-0.06		
	4A	12B	12B	2A				4	QPSK	20	20175	1732.5	1	0	4	20	2175	2132.5	12	5	5095	737.5	12	5	5143	742.3	2	20	700	1940																23.79	23.77	-0.02					
2A-12A-66C	12A	66C	66C	2A				2	QPSK	20	18700	1860	1	49	2	20	700	1940	12	10	5095	737.5	66	20	67036	2170	66	20	66838	2150.2																			24.12	24	-0.12		
	66C	66C	2A	12A				12	QPSK	10	23095	707.5	1	0	12	10	5095	737.5	66	20	67036	2170	66	20	66838	2150.2	2	20	700	1940																	24.2	24.16	-0.04				
2A-66A-66A-71A	2A	66A	66A	71A				66	QPSK	20	132572	1770	1	0	66	20	67036	2170	66	20	66838	2150.2	2	20	700	1940	12	10	5095	737.5																		24.02	23.97	-0.05			
	66A	66A	71A	2A				2	QPSK	20	18700	1860	1	49	2	20	700	1940	66	20	67036	2170	66	20	66536	2120	71	20	68761	634.5	2	20	700	1940															24.02	23.89	-0.13		
4A-4A-12B	4A	4A	12B	12B				71	QPSK	20	133297	680.5	1	0	71	20	68761	634.5	2	20	700	1940	66	20	67036	2170	66	20	66536	2120																			24.25	24.16	-0.09		
	12B	12B	4A	4A				4	QPSK	20	20050	1720	1	0	4	20	2050	2120	12	5	5095	737.5	12	5	5143	742.3	4	20	2300	2145																	23.81	23.77	-0.04				
2A-2A-5A-66A-66A	2A	2A	5A	66A	66A			2	QPSK	20	18700	1860	1	49	2	20	700	1940	2	20	1100	1980	5	10	2525	881.5	66	20	67036	2170	66	20	66536	2120																	24.12	24.01	-0.11
	5A	66A	66A	2A	2A			5	QPSK	10	20525	836.5	1	25	5	10	2525	881.5	66	20	67036	2170	66	20	66536	2120	2	20	700	1940	2	20	1100	1980														24.56	24.42	-0.14			
2A-2A-5A-66C	2A	2A	5A	66C	66C			66	QPSK	20	132572	1770	1	0	66	20	67036	2170	66	20	66536	2120	2	20	700	1940	2	20	1100	1980	5	10	2525	881.5															24.02	23.88	-0.14		
	5A	66C	66C	2A	2A			2	QPSK	20	18700	1860	1	49	2	20	700	1940	2	20	1100	1980	5	10	2525	881.5	66	20	67036	2170	66	20	66838	2150.2															24.12	23.98	-0.14		
2A-2A-12A-66A-66A	2A	2A	12A	66A	66A			5	QPSK	10	20525	836.5	1	25	5	10	2525	881.5	66	20	67036	2170	66	20	66838	2150.2	2	20	700	1940	2	20	1100	1980														24.56	24.44	-0.12			
	66C	66C	2A	2A	5A			66	QPSK	20	132572	1770	1	0	66	20	67036	2170	66	20	66838	2150.2	2	20	700	1940	2	20	1100	1980	5	10	2525	881.5														24.02	23.98	-0.04			
2A-2A-12A-66A-66A	2A	2A	12A	66A	66A			2	QPSK	20	18700	1860	1	49	2	20	700	1940	2	20	110																																

DL CA output power results (Continued)

E-UTRA CA configuration (BCS)	Bands							UL				DL																LTE Rel 8 Tx Power [dBm]	LTE Rel 8 Tx Power [dBm]	Delta							
	PCC	SCC1	SCC2	SCC3	SCC4	SCC5	SCC6	PCC				SCC1				SCC2				SCC4				SCC5							SCC6						
								1st	2nd	3rd	4th	5th	6th	7th	Band	Mode	BW (MHz)	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
2A-2A-5A-66B	2A	2A	5A	66B	66B			2	QPSK	20	18700	1860	1	49	2	20	700	1940	2	20	1100	1980	5	10	2525	881.5	66	15	67061	2172.5	66	5	66968	2163.2	24.12	24	-0.12
	5A	66B	66B	2A	2A			5	QPSK	10	20525	836.5	1	25	5	10	2525	881.5	66	15	67061	2172.5	66	5	66968	2163.2	2	20	700	1940	2	20	1100	1980	24.56	24.48	-0.08
	66B	66B	2A	2A	5A			66	QPSK	15	13297	1772.5	1	0	66	15	67061	2172.5	66	5	66968	2163.2	2	20	700	1940	2	20	1100	1980	5	10	2525	881.5	23.9	23.95	-0.15
2A-2A-12A-30A-66A	2A	2A	12A	30A	66A			2	QPSK	20	18700	1860	1	49	2	20	700	1940	2	20	1100	1980	12	10	5095	737.5	30	10	9820	2355	66	20	67036	2170	24.12	23.78	-0.14
	12A	30A	66A	2A	2A			12	QPSK	10	23095	707.5	1	0	12	10	5095	737.5	30	10	9820	2355	66	20	67036	2170	2	20	700	1940	2	20	1100	1980	24.02	24.14	-0.06
	30A	66A	2A	2A	12A			30	QPSK	10	27710	2310	1	25	30	10	9820	2355	66	20	67036	2170	2	20	700	1940	2	20	1100	1980	12	10	5095	737.5	23.01	22.91	-0.01
2A-2A-13A-66A-66A	66A	2A	2A	12A	30A			66	QPSK	20	132572	1770	1	0	66	20	67036	2170	2	20	700	1940	2	20	1100	1980	12	10	5095	737.5	30	10	9820	2355	24.02	24.02	0
	2A	2A	13A	66A	66A			2	QPSK	20	18700	1860	1	49	2	20	700	1940	2	20	1100	1980	13	10	5230	751	66	20	67036	2170	66	20	66536	2120	24.12	24	-0.12
	13A	66A	66A	2A	2A			13	QPSK	10	23230	782	1	25	13	10	5230	751	66	20	67036	2170	66	20	66536	2120	2	20	700	1940	2	20	1100	1980	24.87	24.83	-0.04
2A-2A-14A-30A-66A	66A	66A	2A	2A	13A			66	QPSK	20	132572	1770	1	0	66	20	67036	2170	66	20	66536	2120	2	20	700	1940	2	20	1100	1980	13	10	5230	751	24.02	23.93	-0.09
	2A	2A	14A	30A	66A			2	QPSK	20	18700	1860	1	49	2	20	700	1940	2	20	1100	1980	14	10	5330	763	30	10	9820	2355	66	20	67036	2170	24.12	24.08	-0.04
	14A	30A	66A	2A	2A			14	QPSK	10	23330	793	1	0	14	10	5330	763	30	10	9820	2355	66	20	67036	2170	2	20	700	1940	2	20	1100	1980	24.74	24.63	-0.11
2A-2A-14A-66A-66A	30A	66A	2A	2A	14A			30	QPSK	10	27710	2310	1	25	30	10	9820	2355	66	20	67036	2170	2	20	700	1940	2	20	1100	1980	14	10	5330	763	23.01	23.01	0
	66A	2A	2A	14A	30A			66	QPSK	20	132572	1770	1	0	66	20	67036	2170	66	20	66536	2120	2	20	700	1940	14	10	5330	763	30	10	9820	2355	24.02	23.98	-0.04
	2A	2A	14A	66A	66A			2	QPSK	20	18700	1860	1	49	2	20	700	1940	2	20	1100	1980	14	10	5330	763	66	20	67036	2170	66	20	66536	2120	24.12	24.04	-0.08
2A-2A-14A-66A-66A	14A	66A	66A	2A	2A			14	QPSK	10	23330	793	1	0	14	10	5330	763	66	20	67036	2170	66	20	66536	2120	2	20	700	1940	2	20	1100	1980	24.74	24.74	0
	66A	66A	2A	2A	14A			66	QPSK	20	132572	1770	1	0	66	20	67036	2170	66	20	66536	2120	2	20	700	1940	2	20	1100	1980	14	10	5330	763	24.02	23.88	-0.14
	2A	2A	29A	30A	66A			2	QPSK	20	18700	1860	1	49	2	20	700	1940	2	20	1100	1980	29	10	9715	722.5	30	10	9820	2355	66	20	67036	2170	24.12	24.07	-0.05
2A-2A-29A-30A-66A	30A	29A	66A	2A	2A			30	QPSK	10	27710	2310	1	25	30	10	9820	2355	29	10	9715	722.5	66	20	67036	2170	2	20	700	1940	2	20	1100	1980	23.01	22.88	-0.13
	66A	29A	2A	2A	30A			66	QPSK	20	132572	1770	1	0	66	20	67036	2170	29	10	9715	722.5	2	20	700	1940	2	20	1100	1980	30	10	9820	2355	24.02	23.97	-0.05
	2A	2A	29A	66A	66A			2	QPSK	20	18700	1860	1	49	2	20	700	1940	2	20	1100	1980	29	10	9715	722.5	66	20	67036	2170	66	20	66536	2120	24.12	23.97	-0.15
2A-2A-29A-66A-66A	66A	66A	29A	2A	2A			66	QPSK	20	132572	1770	1	0	66	20	67036	2170	66	20	66536	2120	29	10	9715	722.5	2	20	700	1940	2	20	1100	1980	24.12	23.97	-0.12
	2A	2A	29A	66A	66A			2	QPSK	20	18700	1860	1	49	2	20	700	1940	2	20	1100	1980	29	10	9715	722.5	66	20	67036	2170	66	20	66536	2120	24.12	23.97	-0.15
	66A	66A	29A	2A	2A			66	QPSK	20	132572	1770	1	0	66	20	67036	2170	66	20	66536	2120	29	10	9715	722.5	2	20	700	1940	2	20	1100	1980	24.02	23.9	-0.12
2A-5A-48A-66A-66A	2A	5A	48A	66A	66A			2	QPSK	20	18700	1860	1	49	2	20	700	1940	5	10	2525	881.5	48	20	56640	3690	66	20	67036	2170	66	20	66536	2120	24.12	24.08	-0.04
	5A	48A	66A	66A	2A			5	QPSK	10	20525	836.5	1	25	5	10	2525	881.5	48	20	56640	3690	66	20	67036	2170	66	20	67036	2170	66	20	66536	2120	24.56	24.5	-0.06
	66A	66A	48A	2A	5A			66	QPSK	20	132572	1770	1	0	66	20	67036	2170	66	20	66536	2120	48	20	56640	3690	2	20	700	1940	5	10	2525	881.5	24.02	23.89	-0.13
2A-5A-48D	2A	5A	48D	48D	48D			2	QPSK	20	18700	1860	1	49	2	20	700	1940	5	10	2525	881.5	48	20	56640	3690	48	20	56442	3670.2	48	20	56244	3650.4	24.12	24.02	-0.1
	5A	48D	48D	48D	2A			5	QPSK	10	20525	836.5	1	25	5	10	2525	881.5	48	20	56640	3690	48	20	56442	3670.2	48	20	56442	3670.2	48	20	56244	3650.4	24.56	24.45	-0.11
	2A	12B	12B	66A	66A			2	QPSK	20	18700	1860	1	49	2	20	700	1940	12	5	5143	742.3	66	20	67036	2170	66	20	67036	2170	66	20	66536	2120	24.12	24.04	-0.08
2A-12B-66A-66A	12B	12B	66A	66A	2A			12	QPSK	5	23095	707.5	1	0	12	5	5095	737.5	12	5	5143	742.3	66	20	67036	2170	66	20	66536	2120	2	20	700	1940	24.29	24.27	-0.02
	66A	66A	2A	12B	12B			66	QPSK	20	132572	1770	1	0	66	20	67036	2170	66	20	67036	2170	66	20	67036	2170	66	20	66536	2120	2	20	700	1940	24.02	23.96	-0.06
	2A	13A	48C	48C	66A			2	QPSK	20	18700	1860	1	49	2	20	700	1940	13	10	5230	751	48	20	56640	3690	48	20	56442	3670.2	66	20	67036	2170	24.12	24.04	-0.08
2A-13A-48C-66A	13A	48C	48C	66A	2A			13	QPSK	10	23230	782	1	25	13	10	5230	751	48	20	56640	3690	48	20	56442	3670.2	66	20	67036	2170	2	20	700	1940	24.87	24.79	-0.08
	66A	48C	48C	2A	13A			66	QPSK	20	132572	1770	1	0	66	20	67036	2170	48	20	56640	3690	48	20	56442	3670.2	2	20	700	1940	13	10	5230	751	24.02	23.97	-0.05
	2A	13A	48D	48D	48D			2	QPSK	20	18700	1860	1	49	2	20	700	1940	13	10	5230	751	48	20	56640	3690	48	20	56442	3670.2	48	20	56244	3650.4	24.12	24.04	-0.08
2A-13A-48D	13A	48D	48D	48D	2A			13	QPSK	10	23230	782	1	25	13	10	5230	751	48	20	56640	3690	48	20	56442	3670.2	48	20	56442	3670.2	48	20	56244	3650.4	24.87	24.77	-0.1
	2A	14A	30A	66A	66A			2	QPSK	20	18700	1860	1	49	2	20	700	1940	14	10	5330	763	30	10	9820	2355	66	20	67036	2170	66	20	66536	2120	24.12	24.03	-0.09
	14A	30A	66A	66A	2A			14	QPSK																												

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

E-UTRA CA configuration (BCS)	Bands								UL																DL																								LTE Rel 8 Tx Power [dBm]	LTE Rel 10 Tx Power [dBm]	Delta					
	PCC	SCC1	SCC2	SCC3	SCC4	SCC5	SCC6	PCC								SCC1								SCC2								SCC4				SCC5				SCC6																
								Band	Mode	BW [MHz]	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]	Band	BW [MHz]	Channel	Freq. [MHz]	Band	BW [MHz]	Channel	Freq. [MHz]																		
	1st	2nd	3rd	4th	5th	6th	7th	Band	Mode	BW [MHz]	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]	Band	BW [MHz]	Channel	Freq. [MHz]																						
2A-12A-[66C]	2A	12A	[66C]	[66C]				2	QPSK	20	18700	1860	1	49	2	20	700	1940	12	10	5095	737.5	[66]	20	67036	2170	[66]	20	66838	2150.2	20	700	1940	12	10	5095	737.5	[66]	20	67036	2170	[66]	20	66838	2150.2	20	700	1940	12	10	5095	737.5	24.12	24.08	-0.04	
	[12A]	[66C]	[66C]	2A				12	QPSK	10	23095	707.5	1	0	12	10	5095	737.5	[66]	20	67036	2170	[66]	20	66838	2150.2	2	20	700	1940	12	10	5095	737.5	[66]	20	67036	2170	[66]	20	66838	2150.2	20	700	1940	12	10	5095	737.5	24.12	24.11	-0.09				
	[66C]	[66C]	2A	12A				[66]	20	18700	1860	1	49	[2]	20	700	1940	12	10	5095	737.5	[66]	20	67036	2170	[66]	20	66838	2150.2	2	20	700	1940	12	10	5095	737.5	[66]	20	67036	2170	[66]	20	66838	2150.2	20	700	1940	12	10	5095	737.5	24.02	23.67	-0.15	
	[2A]	12A	66C	66C				[2]	QPSK	20	18700	1860	1	49	[2]	20	700	1940	12	10	5095	737.5	[66]	20	67036	2170	[66]	20	66838	2150.2	2	20	700	1940	12	10	5095	737.5	[66]	20	67036	2170	[66]	20	66838	2150.2	20	700	1940	12	10	5095	737.5	24.12	24.09	-0.03
[2A]-12A-66C	12A	66C	66C	[2A]				12	QPSK	10	23095	707.5	1	0	12	10	5095	737.5	[66]	20	67036	2170	[66]	20	66838	2150.2	[2]	20	700	1940	12	10	5095	737.5	[66]	20	67036	2170	[66]	20	66838	2150.2	20	700	1940	12	10	5095	737.5	24.12	24.14	-0.06				
	66C	66C	[2A]	12A				66	QPSK	20	18700	1860	1	49	[2]	20	700	1940	12	10	5095	737.5	[66]	20	67036	2170	[66]	20	66838	2150.2	[2]	20	700	1940	12	10	5095	737.5	[66]	20	67036	2170	[66]	20	66838	2150.2	20	700	1940	12	10	5095	737.5	24.02	23.97	-0.05
	[2A]	12A	[66C]	[66C]				[2]	QPSK	20	18700	1860	1	49	[2]	20	700	1940	12	10	5095	737.5	[66]	20	67036	2170	[66]	20	66838	2150.2	[2]	20	700	1940	12	10	5095	737.5	[66]	20	67036	2170	[66]	20	66838	2150.2	20	700	1940	12	10	5095	737.5	24.12	23.98	-0.14
	12A	[66C]	[66C]	[2A]				12	QPSK	10	23095	707.5	1	0	12	10	5095	737.5	[66]	20	67036	2170	[66]	20	66838	2150.2	[2]	20	700	1940	12	10	5095	737.5	[66]	20	67036	2170	[66]	20	66838	2150.2	20	700	1940	12	10	5095	737.5	24.02	23.57	-0.05				
[2A]-12A-[66C]	12A	[66C]	[66C]	[2A]				12	QPSK	10	23095	707.5	1	0	12	10	5095	737.5	[66]	20	67036	2170	[66]	20	66838	2150.2	[2]	20	700	1940	12	10	5095	737.5	[66]	20	67036	2170	[66]	20	66838	2150.2	20	700	1940	12	10	5095	737.5	24.12	24.17	-0.03				
	[66C]	[66C]	[2A]	12A				[66]	20	18700	1860	1	49	[2]	20	700	1940	12	10	5095	737.5	[66]	20	67036	2170	[66]	20	66838	2150.2	[2]	20	700	1940	12	10	5095	737.5	[66]	20	67036	2170	[66]	20	66838	2150.2	20	700	1940	12	10	5095	737.5	24.02	23.97	-0.05	
	[2A]	12A	66A	71A				2	QPSK	20	18700	1860	1	49	2	20	700	1940	12	10	5095	737.5	[66]	20	67036	2170	[66]	20	66536	2120	71	20	68761	634.5	[66]	20	67036	2170	[66]	20	66536	2120	71	20	68761	634.5	24.12	24.11	-0.01							
	[66C]	[66C]	[2A]	12A				[66]	20	18700	1860	1	49	[2]	20	700	1940	12	10	5095	737.5	[66]	20	67036	2170	[66]	20	66536	2120	71	20	68761	634.5	[66]	20	67036	2170	[66]	20	66536	2120	71	20	68761	634.5	24.02	24.31	-0.01								
2A-[66A]-66A-71A	66A	66A	71A	2A				66	QPSK	20	18700	1860	1	49	[2]	20	700	1940	12	10	5095	737.5	[66]	20	67036	2170	[66]	20	66536	2120	71	20	68761	634.5	[66]	20	67036	2170	[66]	20	66536	2120	71	20	68761	634.5	24.02	24.01	-0.01							
	66A	71A	2A	[66A]				66	QPSK	20	18700	1860	1	49	[2]	20	700	1940	12	10	5095	737.5	[66]	20	67036	2170	[66]	20	66536	2120	71	20	68761	634.5	[66]	20	67036	2170	[66]	20	66536	2120	71	20	68761	634.5	24.25	24.16	-0.09							
	71A	2A	[66A]	66A				71	QPSK	20	133297	680.5	1	0	71	20	68761	634.5	2	20	700	1940	[66]	20	67036	2170	[66]	20	66536	2120	71	20	68761	634.5	[66]	20	67036	2170	[66]	20	66536	2120	71	20	68761	634.5	24.25	24.36	-0.09							
	2A	[66A]	[66A]	71A				2	QPSK	20	18700	1860	1	49	2	20	700	1940	12	10	5095	737.5	[66]	20	67036	2170	[66]	20	66536	2120	71	20	68761	634.5	[66]	20	67036	2170	[66]	20	66536	2120	71	20	68761	634.5	24.12	24.07	-0.05							
2A-[66A]-[66A]-71A	66A	[66A]	[66A]	71A				[66]	20	18700	1860	1	49	[2]	20	700	1940	12	10	5095	737.5	[66]	20	67036	2170	[66]	20	66536	2120	71	20	68761	634.5	[66]	20	67036	2170	[66]	20	66536	2120	71	20	68761	634.5	24.02	23.94	-0.08								
	66A	[66A]	71A	2A				66	QPSK	20	18700	1860	1	49	2	20	700	1940	12	10	5095	737.5	[66]	20	67036	2170	[66]	20	66536	2120	71	20	68761	634.5	[66]	20	67036	2170	[66]	20	66536	2120	71	20	68761	634.5	24.12	24.07	-0.05							
	71A	2A	[66A]	[66A]				71	QPSK	20	133297	680.5	1	0	71	20	68761	634.5	2	20	700	1940	[66]	20	67036	2170	[66]	20	66536	2120	71	20	68761	634.5	[66]	20	67036	2170	[66]	20	66536	2120	71	20	68761	634.5	24.02	23.98	-0.08							
	[2A]	66A	66A	71A				[2]	QPSK	20	18700	1860	1	49	[2]	20	700	1940	12	10	5095	737.5	[66]	20	67036	2170	[66]	20	66536	2120	71	20	68761	634.5	[66]	20	67036	2170	[66]	20	66536	2120	71	20	68761	634.5	24.25	24.19	-0.06							
[2A]-[66A]-66A-71A	66A	66A	66A	71A				66	QPSK	20	18700	1860	1	49	[2]	20	700	1940	12	10	5095	737.5	[66]	20	67036	2170	[66]	20	66536	2120	71	20	68761	634.5	[66]	20	67036	2170	[66]	20	66536	2120	71	20	68761	634.5	24.12	24.24	-0.12							
	66A	66A	71A	[2A]				66	QPSK	20	132572	1770	1	0	66	20	67036	2170	71	20	68761	634.5	[2]	20	700	1940	[66]	20	66536	2120	71	20	68761	634.5	[66]	20	67036	2170	[66]	20	66536	2120	71	20	68761	634.5	24.02	23.95	-0.07							
	71A	[2A]	[66A]	66A				71	QPSK	20	133297	680.5	1	0	71	20	68761	634.5	[2]	20	700	1940	[66]	20	67036	2170	[66]	20	66536	2120	71	20	68761	634.5	[66]	20	67036	2170	[66]	20	66536	2120	71	20	68761	634.5	24.25	24.13	-0.12							
	[2A]	[66A]	[66A]	71A				[2]	QPSK	20	18700	1860	1	49	[2]	20	700	1940	12	10	5095	737.5	[66]	20	67036	2170	[66]	20	66536	2120	71	20	68761	634.5	[66]	20	67036	2170	[66]	20	66536	2120	71	20	68761	634.5	24.12	24.24	-0.12							
[2A]-[66A]-[66A]-71A	66A	[66A]	[66A]	71A				[66]	20	132572	1770</																																													

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

E-UTRA CA configuration (BCS)	Bands							UL				DL																												LTE Rel 8 Tx Power [dBm]	LTE Rel 10 Tx Power [dBm]	Delta			
	PCC	SCC1	SCC2	SCC3	SCC4	SCS	SCS	Band	Mode	BW [MHz]	Channel	Freq. [MHz]	RB Allocation	RB offset	PCC				SCC1				SCC2				SCC3				SCC4				SCC5				SCC6						
	1st	2nd	3rd	4th	5th	6th	7th								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]	Band	BW [MHz]	Channel	Freq. [MHz]	Band				BW [MHz]	Channel	Freq. [MHz]
2A-2A-5A-[66C]	2A	2A	5A	[66C]	[66C]			2	QPSK	20	18700	1860	1	49	2	20	700	1940	2	20	1100	1980	5	10	2525	881.5	[66]	20	67036	2170	[66]	20	66536	2120	24.12	23.97	-0.15								
	5A	[66C]	[66C]	[66C]	2A	2A		5	QPSK	10	20525	836.5	1	25	5	10	2525	881.5	[66]	20	67036	2170	[66]	20	66838	2150.2	2	20	700	1940	2	20	1100	1980	24.56	24.55	-0.01								
	[66C]	[66C]	2A	2A	2A	2A		[66]	QPSK	20	132572	1770	1	0	[66]	20	67036	2170	[66]	20	66838	2150.2	2	20	700	1940	5	10	2525	881.5					24.02	24.01	-0.01								
[2A]-2A-5A-66C	[2A]	2A	5A	66C	66C			[2]	QPSK	20	18700	1860	1	49	[2]	20	700	1940	2	20	1100	1980	5	10	2525	881.5	66	20	67036	2170	66	20	66838	2150.2	24.12	24.02	-0.10								
	2A	5A	66C	66C	[2A]			2	QPSK	20	18700	1860	1	49	2	20	700	1940	5	10	2525	881.5	66	20	67036	2170	66	20	66838	2150.2	[2]	20	700	1940	24.12	24.42	-0.12								
	5A	66C	66C	[2A]	2A			5	QPSK	10	20525	836.5	1	25	5	10	2525	881.5	66	20	67036	2170	66	20	66838	2150.2	[2]	20	700	1940	2	20	1100	1980	24.56	24.42	-0.14								
[2A]-2A-5A-[66C]	[2A]	2A	5A	[66C]	[66C]			[66]	QPSK	20	132572	1770	1	0	[66]	20	67036	2170	[66]	20	66838	2150.2	[2]	20	700	1940	5	10	2525	881.5					24.02	23.95	-0.07								
	2A	5A	[66C]	[66C]	[2A]			2	QPSK	20	18700	1860	1	49	2	20	700	1940	5	10	2525	881.5	[66]	20	67036	2170	[66]	20	66838	2150.2	[2]	20	700	1940	24.12	24.07	-0.05								
	5A	[66C]	[66C]	[2A]	2A			5	QPSK	10	20525	836.5	1	25	5	10	2525	881.5	[66]	20	67036	2170	[66]	20	66838	2150.2	[2]	20	700	1940	2	20	1100	1980	24.56	24.48	-0.08								
[2A]-[2A]-5A-66C	[2A]	[2A]	5A	66C	66C			[66]	QPSK	20	132572	1770	1	0	[66]	20	67036	2170	[66]	20	66838	2150.2	[2]	20	700	1940	5	10	2525	881.5					24.02	23.88	-0.14								
	[2A]	[2A]	5A	66C	66C			2	QPSK	20	18700	1860	1	49	[2]	20	700	1940	[2]	20	1100	1980	5	10	2525	881.5	66	20	67036	2170	66	20	66838	2150.2	24.12	24.07	-0.05								
	5A	66C	66C	[2A]	2A			5	QPSK	10	20525	836.5	1	25	5	10	2525	881.5	66	20	67036	2170	66	20	66838	2150.2	[2]	20	700	1940	[2]	20	1100	1980	24.56	24.42	-0.14								
[2A]-[2A]-5A-[66C]	[2A]	[2A]	5A	[66C]	[66C]			[66]	QPSK	20	132572	1770	1	0	[66]	20	67036	2170	[66]	20	66838	2150.2	[2]	20	700	1940	5	10	2525	881.5					24.02	23.88	-0.14								
	[2A]	[2A]	5A	66C	66C			2	QPSK	20	18700	1860	1	49	[2]	20	700	1940	[2]	20	1100	1980	5	10	2525	881.5	66	20	67036	2170	66	20	66838	2150.2	24.12	24.04	-0.08								
	5A	[66C]	[66C]	[2A]	2A			5	QPSK	10	20525	836.5	1	25	5	10	2525	881.5	[66]	20	67036	2170	[66]	20	66838	2150.2	[2]	20	700	1940	[2]	20	1100	1980	24.56	24.44	-0.12								
2A-2A-12A-[66A]-66A	[2A]	[2A]	12A	[66A]	66A			[66]	QPSK	20	132572	1770	1	0	[66]	20	67036	2170	[66]	20	66838	2150.2	[2]	20	700	1940	5	10	2525	881.5					24.02	23.88	-0.14								
	2A	2A	12A	[66A]	66A			2	QPSK	20	18700	1860	1	49	2	20	700	1940	2	20	1100	1980	12	10	5095	737.5	[66]	20	67036	2170	66	20	66536	2120	24.12	24.04	-0.08								
	12A	[66A]	66A	2A	2A			12	QPSK	10	23095	707.5	1	0	12	10	5095	737.5	[66]	20	67036	2170	66	20	66536	2120	2	20	700	1940	2	20	1100	1980	24.2	24.12	-0.08								
[2A]-2A-12A-[66A]-[66A]	[66A]	[66A]	12A	2A	12A			[66]	QPSK	20	132572	1770	1	0	[66]	20	67036	2170	66	20	66536	2120	2	20	700	1940	2	20	1100	1980	12	10	5095	737.5			24.02	23.95	-0.07						
	66A	2A	2A	12A	[66A]			66	QPSK	20	132572	1770	1	0	66	20	67036	2170	2	20	700	1940	2	20	1100	1980	12	10	5095	737.5	[66]	20	66536	2120	24.02	23.9	-0.12								
	2A	2A	12A	[66A]	66A			2	QPSK	20	18700	1860	1	49	2	20	700	1940	2	20	1100	1980	12	10	5095	737.5	[66]	20	67036	2170	66	20	66536	2120	24.12	24.08	-0.04								
[2A]-2A-12A-[66A]-66A	[2A]	[2A]	12A	[66A]	66A			[66]	QPSK	20	132572	1770	1	0	[66]	20	67036	2170	[66]	20	66536	2120	2	20	700	1940	2	20	1100	1980	12	10	5095	737.5			24.02	23.91	-0.11						
	[2A]	[2A]	12A	66A	66A			2	QPSK	20	18700	1860	1	49	[2]	20	700	1940	[2]	20	1100	1980	12	10	5095	737.5	66	20	67036	2170	66	20	66536	2120	24.12	24.04	-0.08								
	2A	12A	66A	66A	[2A]			2	QPSK	20	18700	1860	1	49	2	20	700	1940	12	10	5095	737.5	66	20	67036	2170	66	20	66536	2120	[2]	20	700	1940	24.12	23.99	-0.13								
[2A]-2A-12A-[66A]-66A	[2A]	[2A]	12A	[66A]	66A			[66]	QPSK	20	132572	1770	1	0	[66]	20	67036	2170	[66]	20	66536	2120	2	20	700	1940	2	20	1100	1980	12	10	5095	737.5			24.02	23.91	-0.11						
	[2A]	[2A]	12A	66A	66A			2	QPSK	20	18700	1860	1	49	[2]	20	700	1940	[2]	20	1100	1980	12	10	5095	737.5	66	20	67036	2170	66	20	66536	2120	24.12	24.08	-0.04								
	2A	12A	66A	66A	[2A]			2	QPSK	20	18700	1860	1	49	2	20	700	1940	12	10	5095	737.5	66	20	67036	2170	66	20	66536	2120	[2]	20	700	1940	24.12	23.99	-0.13								
[2A]-2A-12A-[66A]-66A	[2A]	[2A]	12A	[66A]	66A			[66]	QPSK	20	132572	1770	1	0	[66]	20	67036	2170	[66]	20	66536	2120	2	20	700	1940	2	20	1100	1980	12	10	5095	737.5			24.02	23.94	-0.08						
	[2A]	[2A]	12A	66A	66A			2	QPSK	20	18700	1860	1	49	[2]	20	700	1940	[2]	20	1100	1980	12	10	5095	737.5	66	20	67036	2170	66	20	66536	2120	24.12	24.11	-0.02								
	2A	12A	66A	66A	[2A]			2	QPSK	20	18700	1860	1	49	2	20	700	1940	12	10	5095	737.5	66	20	67036	2170	66	20	66536	2120	[2]	20	700	1940	24.12	24.03	-0.09								
[2A]-2A-12A-[66A]-66A	[2A]	[2A]	12A	[66A]	66A			[66]	QPSK	20	132572	1770	1	0	[66]	20	67036	2170	[66]	20	66536	2120	2	20	700	1940	2	20	1100	1980	12	10	5095	737.5			24.02	24.17	-0.15						
	[2A]	[2A]	12A	66A	66A			2	QPSK	20	18700	1860	1	49	[2]	20	700	1940	[2]	20	1100	1980	12	10	5095	737.5	66	20	67036	2170	66	20	66536	2120	24.02	23.94	-0.08								
	2A	12A	66A	66A	[2A]			2	QPSK	20	18700	1860	1	49	2	20	700	1940	12	10	5095	737.5	66	20	67036	2170	66	20	66536	2120	[2]	20	700	1940	24.12	24.03	-0.09								
[2A]-2A-12A-[66A]-66A	[2A]	[2A]	12A	[66A]	66A			[66]	QPSK	20	132572	1770	1	0	[66]	20	67036	2170	[66]	20	66536	2120	2	20	700	1940	2	20	1100	1980	12	10	5095	737.5			24.02								

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

E-UTRA CA configuration (BCS)	Bands							UL				DL												LTE Rel 8 Tx Power [dBm]	LTE Rel 10 Tx Power [dBm]	Delta											
	PCC							PCC				SCC1				SCC2				SCC4							SCC5				SCC6						
	1st	2nd	3rd	4th	5th	6th	7th	Band	Mode	BW (MHz)	Channel	Band	BW (MHz)	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)	Band
[2A]-[2A]-12B-[66A]	[2A]	[2A]	12B	12B	[66A]	[2A]	[2A]	[2]	QPSK	20	18700	1860	1	49	[2]	20	700	1940	[2]	20	1100	1980	12	5	5095	737.5	12	5	5143	742.3	[66]	20	67036	2170	2412	2412	0
[2A]-[2A]-12B-[66A]	[2A]	[2A]	[66A]	[2A]	[2A]	[2A]	[2A]	12	QPSK	5	2095	707.5	1	0	12	5	5095	737.5	12	5	5143	742.3	[66]	20	67036	2170	[2]	20	700	1940	[2]	20	1100	1980	2429	2416	-0.13
[2A]-[2A]-12B-[66A]	[66A]	[2A]	[2A]	12B	12B	[2A]	[2A]	[66]	QPSK	20	132572	1770	1	0	[66]	20	67036	2170	[2]	20	700	1940	[2]	20	1100	1980	12	5	5095	737.5	12	5	5143	742.3	2402	2396	-0.06
2A-5A-30A-[66A]-66A	2A	5A	30A	[66A]	66A	66A	66A	2	QPSK	20	18700	1860	1	49	2	20	700	1940	5	10	2525	881.5	30	10	9820	2355	[66]	20	67036	2170	66	20	66536	2120	2412	24	-0.12
2A-5A-30A-[66A]-66A	5A	30A	[66A]	66A	2A	2A	2A	5	QPSK	10	20525	836.5	1	25	5	10	2525	881.5	30	10	9820	2355	[66]	20	67036	2170	66	20	66536	2120	2	20	700	1940	2456	2444	-0.12
2A-5A-30A-[66A]-66A	30A	[66A]	66A	2A	5A	5A	5A	30	QPSK	20	27710	2310	1	25	30	10	9820	2355	[66]	20	67036	2170	66	20	66536	2120	2	20	700	1940	5	10	2525	881.5	2301	2299	-0.02
2A-5A-30A-[66A]-66A	[66A]	66A	2A	5A	30A	[66A]	[66A]	[66]	QPSK	20	132572	1770	1	0	[66]	20	67036	2170	66	20	66536	2120	2	20	700	1940	5	10	2525	881.5	[66]	20	66536	2120	2402	2396	-0.06
2A-5A-30A-[66A]-66A	66A	2A	5A	30A	[66A]	[66A]	[66A]	66	QPSK	20	132572	1770	1	0	[66]	20	67036	2170	66	20	66536	2120	2	20	700	1940	5	10	2525	881.5	[66]	20	66536	2120	2402	2388	-0.14
2A-5A-30A-[66A]-66A	2A	5A	30A	[66A]	[66A]	[66A]	[66A]	2	QPSK	20	18700	1860	1	49	2	20	700	1940	5	10	2525	881.5	30	10	9820	2355	[66]	20	67036	2170	[66]	20	66536	2120	2412	24.1	-0.02
2A-5A-30A-[66A]-66A	5A	30A	[66A]	[66A]	2A	2A	2A	5	QPSK	10	20525	836.5	1	25	5	10	2525	881.5	30	10	9820	2355	[66]	20	67036	2170	[66]	20	67036	2170	[66]	20	66536	2120	2456	24.48	-0.08
2A-5A-30A-[66A]-66A	30A	[66A]	[66A]	2A	5A	5A	5A	30	QPSK	10	27710	2310	1	25	30	10	9820	2355	[66]	20	67036	2170	[66]	20	66536	2120	2	20	700	1940	5	10	2525	881.5	2301	22.89	-0.12
2A-5A-30A-[66A]-66A	[66A]	66A	2A	5A	30A	[66A]	[66A]	[66]	QPSK	20	132572	1770	1	0	[66]	20	67036	2170	[66]	20	66536	2120	2	20	700	1940	5	10	2525	881.5	[66]	20	66536	2120	2402	23.97	-0.05
2A-5A-30A-[66A]-66A	2A	5A	[30A]	66A	66A	66A	66A	2	QPSK	20	18700	1860	1	49	2	20	700	1940	5	10	2525	881.5	[30]	10	9820	2355	66	20	67036	2170	66	20	66536	2120	2412	24	-0.12
2A-5A-30A-[66A]-66A	5A	[30A]	66A	66A	2A	2A	2A	5	QPSK	10	20525	836.5	1	25	5	10	2525	881.5	[30]	10	9820	2355	66	20	67036	2170	66	20	66536	2120	2	20	700	1940	2456	24.41	-0.15
2A-5A-30A-[66A]-66A	[30A]	66A	66A	2A	5A	5A	5A	[30]	QPSK	10	27710	2310	1	25	[30]	10	9820	2355	66	20	67036	2170	66	20	66536	2120	2	20	700	1940	5	10	2525	881.5	2301	22.98	-0.03
2A-5A-30A-[66A]-66A	66A	66A	2A	5A	[30A]	[66A]	[66A]	66	QPSK	20	132572	1770	1	0	[66]	20	67036	2170	66	20	66536	2120	2	20	700	1940	5	10	2525	881.5	[30]	10	9820	2355	2402	23.93	-0.09
2A-5A-30A-[66A]-66A	2A	5A	[30A]	66A	66A	[66A]	[66A]	2	QPSK	20	18700	1860	1	49	2	20	700	1940	5	10	2525	881.5	[30]	10	9820	2355	[66]	20	67036	2170	[66]	20	66536	2120	2412	24.1	-0.11
2A-5A-30A-[66A]-66A	5A	[30A]	66A	66A	2A	2A	2A	5	QPSK	10	20525	836.5	1	25	5	10	2525	881.5	[30]	10	9820	2355	[66]	20	67036	2170	[66]	20	66536	2120	2	20	700	1940	2456	24.56	0
2A-5A-30A-[66A]-66A	[30A]	66A	66A	2A	5A	5A	5A	[30]	QPSK	10	27710	2310	1	25	[30]	10	9820	2355	[66]	20	67036	2170	66	20	66536	2120	2	20	700	1940	5	10	2525	881.5	2301	22.98	-0.03
2A-5A-30A-[66A]-66A	[66A]	66A	2A	5A	[30A]	[66A]	[66A]	[66]	QPSK	20	132572	1770	1	0	[66]	20	67036	2170	66	20	66536	2120	2	20	700	1940	5	10	2525	881.5	[30]	10	9820	2355	2402	23.89	-0.13
2A-5A-30A-[66A]-66A	66A	2A	5A	[30A]	[66A]	[66A]	[66A]	66	QPSK	20	132572	1770	1	0	[66]	20	67036	2170	66	20	66536	2120	2	20	700	1940	5	10	2525	881.5	[30]	10	9820	2355	2402	23.88	-0.14
2A-5A-30A-[66A]-66A	2A	5A	[30A]	66A	66A	[66A]	[66A]	2	QPSK	20	18700	1860	1	49	2	20	700	1940	5	10	2525	881.5	[30]	10	9820	2355	[66]	20	67036	2170	[66]	20	66536	2120	2412	24.06	-0.16
2A-5A-30A-[66A]-66A	5A	[30A]	66A	66A	2A	2A	2A	5	QPSK	10	20525	836.5	1	25	5	10	2525	881.5	[30]	10	9820	2355	[66]	20	67036	2170	[66]	20	66536	2120	2	20	700	1940	2456	24.5	0.06
2A-5A-30A-[66A]-66A	[30A]	66A	66A	2A	5A	5A	5A	[30]	QPSK	10	27710	2310	1	25	[30]	10	9820	2355	[66]	20	67036	2170	[66]	20	66536	2120	2	20	700	1940	5	10	2525	881.5	2301	22.97	-0.04
2A-5A-30A-[66A]-66A	[66A]	66A	[2A]	5A	30A	[66A]	[66A]	[66]	QPSK	20	132572	1770	1	0	[66]	20	67036	2170	[66]	20	66536	2120	2	20	700	1940	5	10	2525	881.5	[30]	10	9820	2355	2402	23.88	-0.14
2A-5A-30A-[66A]-66A	5A	30A	66A	66A	66A	66A	66A	[2]	QPSK	20	18700	1860	1	49	[2]	20	700	1940	5	10	2525	881.5	30	10	9820	2355	66	20	67036	2170	66	20	66536	2120	2412	24.01	-0.11
2A-5A-30A-[66A]-66A	30A	[66A]	66A	66A	[2A]	5A	5A	30	QPSK	10	20525	836.5	1	25	5	10	2525	881.5	30	10	9820	2355	66	20	67036	2170	66	20	66536	2120	[2]	20	700	1940	2456	24.52	-0.04
2A-5A-30A-[66A]-66A	66A	66A	[2A]	5A	30A	[66A]	[66A]	66	QPSK	20	132572	1770	1	0	[66]	20	67036	2170	66	20	66536	2120	[2]	20	700	1940	5	10	2525	881.5	[2]	20	700	1940	2301	23.01	0
2A-5A-30A-[66A]-66A	[2A]	5A	30A	[66A]	66A	[66A]	[66A]	[2]	QPSK	20	18700	1860	1	49	[2]	20	700	1940	5	10	2525	881.5	30	10	9820	2355	[66]	20	67036	2170	66	20	66536	2120	2402	23.98	-0.04
2A-5A-30A-[66A]-66A	5A	30A	[66A]	66A	[2A]	5A	5A	5	QPSK	10	20525	836.5	1	25	5	10	2525	881.5	30	10	9820	2355	[66]	20	67036	2170	66	20	66536	2120	[2]	20	700	1940	2456	24.49	-0.03
2A-5A-30A-[66A]-66A	30A	[66A]	[66A]	[2A]	5A	5A	5A	30	QPSK	10	27710	2310	1	25	[30]	10	9820	2355	[66]	20	67036	2170	[66]	20	66536	2120	[2]	20	700	1940	5	10	2525	881.5	2301	22.96	-0.05
2A-5A-30A-[66A]-66A	[66A]	66A	[2A]	5A	30A	[66A]	[66A]	[66]	QPSK	20	132572	1770	1	0	[66]	20	67036	2170	[2]	20	700	1940	5	10	2525	881.5	30	10	9820	2355	[66]	20	66536	2120	2402	23.94	-0.08
2A-5A-30A-[66A]-66A	66A	[2A]	5A	30A	[66A]	[66A]	[66A]	66	QPSK	20	132572	1770	1	0	[66]	20	67036	2170	[2]	20	700	1940	5	10	2525	881.5	30	10	9820	2355	[66]	20	66536	2120	2402	24.02	0
2A-5A-30A-[66A]-66A	[2A]	5A	30A	[66A]	[66A]	[66A]	[66A]	[2]	QPSK	20	18700	1860	1	49	[2]	20	700	1940	5	10	2525	881.5	[66]	20	67036	2170	[66]	20	67036	2170	[66]	20	66536	2120	2412	24.1	-0.12
2A-5A-30A-[66A]-66A	5A	[30A]	66A	66A	[2A]	5A	5A	5	QPSK	10	20525	836.5	1	25	5	10	2525	881.5	[30]	10	9820	2355	66	20	67036	2170	66	20	66536	2120	[2]	20	700	1940	2456	24.47	-0.09
2A-5A-30A-[66A]-66A	[30A]	66A	66A	[2A]	5A	5A	5A	[30]	QPSK	10	27710	2310	1	25	[30]	10	9820	2355	66	20	67036	2170	66	20	66536	2120	[2]	20	700	1940	5	10	2525	88			

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

E-UTRA CA configuration (BSC)	Bands							UL										DL												LTE Rel 8 Tx Power (dBm)	LTE Rel 10 Tx Power (dBm)	Delta								
	PCC				SCC4			PCC			SCC1			SCC2			SCC3			SCC4			SCC5			SCC6														
	1st	2nd	3rd	4th	5th	6th	7th	Band	Mode	BW (MHz)	Freq. (MHz)	RB Allocation	RB offset	Band	BW (MHz)	Freq. (MHz)	Band	BW (MHz)	Freq. (MHz)	Band	BW (MHz)	Freq. (MHz)	Band	BW (MHz)	Freq. (MHz)	Band	BW (MHz)	Freq. (MHz)	Band				BW (MHz)	Freq. (MHz)	Band	BW (MHz)	Freq. (MHz)			
2A-13A-[66B]	2A	13A	[66B]	[66B]			2	QPSK	20	18700	1860	1	49	2	20	700	1940	13	10	5230	751	[66]	15	67061	2172.5	[66]	5	66968	2163.2	2	20	700	1940	13	10	5230	751	2412	23.97	-0.15
	13A	[66B]	[66B]	2A			13	QPSK	10	23230	782	1	25	13	10	5230	751	[66]	15	67061	2172.5	[66]	5	66968	2163.2	2	20	700	1940	13	10	5230	751	2487	24.84	-0.03				
	[66B]	[66B]	2A	13A			[66]	QPSK	15	132597	1772.5	1	0	[66]	15	67061	2172.5	[66]	5	66968	2163.2	2	20	700	1940	13	10	5230	751	2402	23.89	-0.12								
[2A]-13A-[66B]	[2A]	13A	66B	66B			[2]	QPSK	20	18700	1860	1	49	[2]	20	700	1940	13	10	5230	751	[66]	15	67061	2172.5	[66]	5	66968	2163.2	[2]	20	700	1940	13	10	5230	751	2412	24.05	-0.07
	13A	66B	66B	[2A]			13	QPSK	10	23230	782	1	25	13	10	5230	751	[66]	15	67061	2172.5	[66]	5	66968	2163.2	[2]	20	700	1940	13	10	5230	751	2487	24.78	-0.09				
	66B	66B	[2A]	13A			[66]	QPSK	15	132597	1772.5	1	0	[66]	15	67061	2172.5	[66]	5	66968	2163.2	[2]	20	700	1940	13	10	5230	751	2402	24.01	-0.01								
[2A]-13A-[66B]	[2A]	13A	[66B]	[66B]			[2]	QPSK	20	18700	1860	1	49	[2]	20	700	1940	13	10	5230	751	[66]	15	67061	2172.5	[66]	5	66968	2163.2	[2]	20	700	1940	13	10	5230	751	2412	24.03	-0.01
	13A	[66B]	[66B]	[2A]			13	QPSK	10	23230	782	1	25	13	10	5230	751	[66]	15	67061	2172.5	[66]	5	66968	2163.2	[2]	20	700	1940	13	10	5230	751	2487	24.84	-0.03				
	[66B]	[66B]	[2A]	13A			[66]	QPSK	15	132597	1772.5	1	0	[66]	15	67061	2172.5	[66]	5	66968	2163.2	[2]	20	700	1940	13	10	5230	751	2402	23.97	-0.05								
2A-13A-[66C]	2A	13A	[66C]	[66C]			2	QPSK	20	18700	1860	1	49	2	20	700	1940	13	10	5230	751	[66]	15	67036	2170	[66]	20	66838	2150.2	2	20	700	1940	13	10	5230	751	2412	24.05	-0.07
	[66C]	[66C]	2A	13A			[66]	QPSK	20	132572	1770	1	0	[66]	20	67036	2170	[66]	20	66838	2150.2	2	20	700	1940	13	10	5230	751	2402	24.01	-0.01								
	[2A]	13A	66C	66C			[2]	QPSK	20	18700	1860	1	49	[2]	20	700	1940	13	10	5230	751	[66]	15	67036	2170	[66]	20	66838	2150.2	[2]	20	700	1940	13	10	5230	751	2412	24.05	-0.07
[2A]-13A-[66C]	13A	66C	66C	[2A]			13	QPSK	10	23230	782	1	25	13	10	5230	751	[66]	15	67036	2170	[66]	20	67036	2170	[66]	20	66838	2150.2	[2]	20	700	1940	13	10	5230	751	2487	24.78	-0.09
	[66C]	[66C]	[2A]	13A			[66]	QPSK	10	23230	782	1	25	13	10	5230	751	[66]	15	67036	2170	[66]	20	67036	2170	[66]	20	66838	2150.2	[2]	20	700	1940	13	10	5230	751	2402	24.01	-0.01
	[2A]	13A	66C	66C			[2]	QPSK	20	18700	1860	1	49	[2]	20	700	1940	13	10	5230	751	[66]	15	67036	2170	[66]	20	66838	2150.2	[2]	20	700	1940	13	10	5230	751	2412	24.05	-0.07
[2A]-13A-[66C]	[2A]	13A	[66C]	[66C]			[2]	QPSK	20	18700	1860	1	49	[2]	20	700	1940	13	10	5230	751	[66]	15	67036	2170	[66]	20	66838	2150.2	[2]	20	700	1940	13	10	5230	751	2412	24.07	-0.05
	13A	[66C]	[66C]	[2A]			[66]	QPSK	10	23230	782	1	25	13	10	5230	751	[66]	15	67036	2170	[66]	20	67036	2170	[66]	20	66838	2150.2	[2]	20	700	1940	13	10	5230	751	2487	24.82	-0.05
	[66C]	[66C]	[2A]	13A			[66]	QPSK	10	23230	782	1	25	13	10	5230	751	[66]	15	67036	2170	[66]	20	67036	2170	[66]	20	66838	2150.2	[2]	20	700	1940	13	10	5230	751	2402	24.01	-0.01
2A-48A-48A-[66A]	2A	48A	48A	[66A]			2	QPSK	20	18700	1860	1	49	2	20	700	1940	48	20	56640	3690	[66]	20	55773	3603.3	[66]	20	55773	3603.3	[66]	20	67036	2170	2412	24.01	-0.11				
	[66A]	48A	48A	2A			[66]	QPSK	20	132572	1770	1	0	[66]	20	67036	2170	[66]	20	56640	3690	[66]	20	55773	3603.3	[66]	20	55773	3603.3	[66]	20	67036	2170	2402	23.94	-0.08				
	2A	[48A]	[48A]	66A			2	QPSK	20	18700	1860	1	49	2	20	700	1940	48	20	56640	3690	[66]	20	55773	3603.3	[66]	20	55773	3603.3	[66]	20	67036	2170	2412	24.11	-0.02				
2A-[48A]-48A-[66A]	66A	[48A]	48A	2A			66	QPSK	20	132572	1770	1	0	66	20	67036	2170	[48]	20	56640	3690	[48]	20	55773	3603.3	[66]	20	55773	3603.3	[66]	20	67036	2170	2402	24.01	-0.01				
	2A	[48A]	48A	[66A]			2	QPSK	20	18700	1860	1	49	2	20	700	1940	48	20	56640	3690	[66]	20	55773	3603.3	[66]	20	55773	3603.3	[66]	20	67036	2170	2412	24.01	-0.11				
	[66A]	[48A]	48A	2A			[66]	QPSK	20	132572	1770	1	0	[66]	20	67036	2170	[48]	20	56640	3690	[48]	20	55773	3603.3	[66]	20	55773	3603.3	[66]	20	67036	2170	2402	23.93	-0.09				
2A-[48A]-[48A]-66A	2A	[48A]	[48A]	66A			2	QPSK	20	18700	1860	1	49	2	20	700	1940	48	20	56640	3690	[48]	20	55773	3603.3	[66]	20	55773	3603.3	[66]	20	67036	2170	2412	24.11	-0.01				
	66A	[48A]	[48A]	2A			66	QPSK	20	132572	1770	1	0	66	20	67036	2170	[48]	20	56640	3690	[48]	20	55773	3603.3	[66]	20	55773	3603.3	[66]	20	67036	2170	2402	23.93	-0.09				
	[66A]	[48A]	[48A]	66A			2	QPSK	20	18700	1860	1	49	2	20	700	1940	48	20	56640	3690	[48]	20	55773	3603.3	[66]	20	55773	3603.3	[66]	20	67036	2170	2412	24.04	-0.08				
2A-[48A]-[48A]-[66A]	[66A]	[48A]	[48A]	2A			[66]	QPSK	20	132572	1770	1	0	[66]	20	67036	2170	[48]	20	56640	3690	[48]	20	55773	3603.3	[66]	20	55773	3603.3	[66]	20	67036	2170	2402	23.94	-0.08				
	[2A]	48A	48A	66A			[2]	QPSK	20	18700	1860	1	49	[2]	20	700	1940	48	20	56640	3690	[48]	20	55773	3603.3	[66]	20	55773	3603.3	[66]	20	67036	2170	2412	23.99	-0.13				
	66A	48A	48A	[2A]			[66]	QPSK	20	132572	1770	1	0	66	20	67036	2170	[48]	20	56640	3690	[48]	20	55773	3603.3	[66]	20	55773	3603.3	[66]	20	67036	2170	2402	23.93	-0.09				
[2A]-48A-48A-[66A]	[2A]	48A	48A	[66A]			[2]	QPSK	20	18700	1860	1	49	[2]	20	700	1940	48	20	56640	3690	[48]	20	55773	3603.3	[66]	20	55773	3603.3	[66]	20	67036	2170	2412	23.98	-0.14				
	[66A]	48A	48A	[2A]			[66]	QPSK	20	132572	1770	1	0	[66]	20	67036	2170	[48]	20	56640	3690	[48]	20	55773	3603.3	[66]	20	55773	3603.3	[66]	20	67036	2170	2402	23.89	-0.13				
	[2A]	48A	48A	66A			[2]	QPSK	20	18700	1860	1	49	[2]	20	700	1940	48	20	56640	3690	[48]	20	55773	3603.3	[66]	20	55773	3603.3	[66]	20	67036	2170	2412	23.98	-0.14				
[2A]-[48A]-48A-[66A]	66A	[48A]	48A	[2A]			66	QPSK	20	132572	1770	1	0	66	20	67036	2170	[48]	20	56640	3690	[48]	20	55773	3603.3	[66]	20	55773	3603.3	[66]	20	67036	2170	2402	23.88	-0.09				
	[2A]	[48A]	48A	[66A]	</																																			

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

E-UTRA CA configuration (BCC)	Bands							UL							DL												LTE Ref 10 Tx Power (dBm)	LTE Ref 10 Tx Power (dBm)	Delta													
	SCC1	SCC2	SCC3	SCC4	SCC5	SCC6	Band	Mode	BW (MHz)	Channel	Freq. (MHz)	RB Allocation	RB offset	SCC1			SCC2			SCC3			SCC4			SCC5				SCC6												
	1st	2nd	3rd	4th	5th	6th								7th	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)	Band	BW (MHz)	Channel	Freq. (MHz)	
[2A]-2A-5A-30A-66A	[2A]	2A	5A	30A	66A			[2]	QPSK	20	18700	1860	1	49	[2]	20	700	1940	2	20	1100	1980	5	10	2525	881.5	30	10	9820	2355	66	20	67036	2170	2412	24.03	-0.09					
	[2A]	2A	5A	30A	66A	[2A]		2	QPSK	20	18700	1860	1	49	[2]	20	700	1940	5	10	2525	881.5	30	10	9820	2355	66	20	67036	2170	[2]	20	1100	1980	2412	24.02	-0.1					
	[2A]	2A	5A	30A	66A	[2A]	2A	5	QPSK	10	20525	836.5	1	25	5	10	2525	881.5	30	10	9820	2355	66	20	67036	2170	[2]	20	700	1940	2	20	1100	1980	2412	24.02	-0.14					
	[2A]	2A	5A	30A	66A	[2A]	2A	30A	66A	[2A]	2A	5A	30A	66A	[2A]	2A	5A	30A	66A	[2A]	2A	5A	30A	66A	[2A]	2A	5A	30A	66A	[2A]	2A	5A	30A	66A	[2A]	2A	5A	30A	66A	2301	22.93	-0.08
	[2A]	2A	5A	30A	66A	[2A]	2A	66	QPSK	20	132572	1770	1	0	[66]	20	67036	2170	[2]	20	700	1940	2	20	1100	1980	5	10	2525	881.5	30	10	9820	2355	2402	24.2	-0.02					
	[2A]	2A	5A	30A	66A	[2A]	2A	[2]	2	QPSK	20	18700	1860	1	49	[2]	20	700	1940	2	20	1100	1980	5	10	2525	881.5	30	10	9820	2355	[66]	20	67036	2170	2412	23.97	-0.15				
	[2A]	2A	5A	30A	66A	[2A]	2A	2	QPSK	20	18700	1860	1	49	[2]	20	700	1940	5	10	2525	881.5	30	10	9820	2355	[66]	20	67036	2170	[2]	20	1100	1980	2412	24.07	-0.05					
	[2A]	2A	5A	30A	66A	[2A]	2A	5	QPSK	10	20525	836.5	1	25	5	10	2525	881.5	30	10	9820	2355	[66]	20	67036	2170	[2]	20	700	1940	2	20	1100	1980	2412	24.5	-0.06					
	[2A]	2A	5A	30A	66A	[2A]	2A	30	QPSK	10	27710	2310	1	25	[30]	10	9820	2355	[66]	20	67036	2170	[2]	20	700	1940	2	20	1100	1980	5	10	2525	881.5	2301	22.87	-0.14					
	[2A]	2A	5A	30A	66A	[2A]	2A	66	QPSK	20	132572	1770	1	0	[66]	20	67036	2170	[2]	20	700	1940	2	20	1100	1980	5	10	2525	881.5	[30]	10	9820	2355	2402	23.88	-0.13					
[2A]-2A-5A-[30A]-[66A]	[2A]	2A	5A	[30A]	[66A]			[2]	QPSK	20	18700	1860	1	49	[2]	20	700	1940	2	20	1100	1980	5	10	2525	881.5	30	10	9820	2355	66	20	67036	2170	2412	24.05	-0.07					
	[30A]	[66A]	[2A]	[2A]	[2A]			[30]	QPSK	10	27710	2310	1	25	[30]	10	9820	2355	[66]	20	67036	2170	[2]	20	700	1940	2	20	1100	1980	5	10	2525	881.5	2301	22.9	-0.11					
	[2A]	2A	5A	[30A]	[66A]			[2]	QPSK	20	132572	1770	1	0	[66]	20	67036	2170	[2]	20	700	1940	2	20	1100	1980	5	10	2525	881.5	[30]	10	9820	2355	2402	23.88	-0.13					
	[2A]	2A	5A	[30A]	[66A]	[2A]			[2]	QPSK	20	18700	1860	1	49	[2]	20	700	1940	2	20	1100	1980	5	10	2525	881.5	[30]	10	9820	2355	[66]	20	67036	2170	2412	24.02	-0.09				
	[2A]	2A	5A	[30A]	[66A]	[2A]	2A	5	QPSK	10	20525	836.5	1	25	5	10	2525	881.5	[30]	10	9820	2355	[66]	20	67036	2170	[2]	20	700	1940	2	20	1100	1980	2412	24.08	-0.04					
	[2A]	2A	5A	[30A]	[66A]	[2A]	2A	30	QPSK	10	27710	2310	1	25	[30]	10	9820	2355	[66]	20	67036	2170	[2]	20	700	1940	2	20	1100	1980	5	10	2525	881.5	2301	22.87	-0.14					
	[2A]	2A	5A	[30A]	[66A]	[2A]	2A	66	QPSK	20	132572	1770	1	0	[66]	20	67036	2170	[2]	20	700	1940	2	20	1100	1980	5	10	2525	881.5	[30]	10	9820	2355	2402	24.51	-0.05					
	[2A]	2A	5A	[30A]	[66A]	[2A]	2A	[30]	QPSK	10	27710	2310	1	25	[30]	10	9820	2355	[66]	20	67036	2170	[2]	20	700	1940	2	20	1100	1980	5	10	2525	881.5	2301	22.86	-0.15					
	[2A]	2A	5A	[30A]	[66A]	[2A]	2A	[66]	QPSK	20	132572	1770	1	0	[66]	20	67036	2170	[2]	20	700	1940	2	20	1100	1980	5	10	2525	881.5	[30]	10	9820	2355	2402	23.98	-0.08					
	[2A]	2A	5A	[30A]	[66A]	[2A]	2A	[2]	QPSK	20	18700	1860	1	49	[2]	20	700	1940	2	20	1100	1980	5	10	2525	881.5	[30]	10	9820	2355	[66]	20	67036	2170	2412	24.06	-0.06					
[2A]-2A-5A-[30A]-[66A]	[2A]	2A	5A	[30A]	[66A]			[2]	QPSK	10	20525	836.5	1	25	5	10	2525	881.5	[30]	10	9820	2355	[66]	20	67036	2170	[2]	20	700	1940	2	20	1100	1980	2412	24.41	-0.01					
	[30A]	[66A]	[2A]	[2A]	[2A]			[30]	QPSK	10	27710	2310	1	25	[30]	10	9820	2355	[66]	20	67036	2170	[2]	20	700	1940	2	20	1100	1980	5	10	2525	881.5	2301	22.86	-0.15					
	[2A]	2A	5A	[30A]	[66A]			[2]	QPSK	20	132572	1770	1	0	[66]	20	67036	2170	[2]	20	700	1940	2	20	1100	1980	5	10	2525	881.5	[30]	10	9820	2355	2402	23.98	-0.08					
	[2A]	2A	5A	[30A]	[66A]	[2A]			[2]	QPSK	20	18700	1860	1	49	[2]	20	700	1940	2	20	1100	1980	5	10	2525	881.5	[30]	10	9820	2355	[66]	20	67036	2170	2412	24.06	-0.06				
	[2A]	2A	5A	[30A]	[66A]	[2A]	2A	5	QPSK	10	20525	836.5	1	25	5	10	2525	881.5	[30]	10	9820	2355	[66]	20	67036	2170	[2]	20	700	1940	2	20	1100	1980	2412	24.45	-0.11					
	[2A]	2A	5A	[30A]	[66A]	[2A]	2A	30	QPSK	10	27710	2310	1	25	[30]	10	9820	2355	[66]	20	67036	2170	[2]	20	700	1940	2	20	1100	1980	5	10	2525	881.5	2301	22.92	-0.09					
	[2A]	2A	5A	[30A]	[66A]	[2A]	2A	[66]	QPSK	20	132572	1770	1	0	[66]	20	67036	2170	[2]	20	700	1940	2	20	1100	1980	5	10	2525	881.5	[30]	10	9820	2355	2402	23.97	-0.14					
	[2A]	2A	5A	[30A]	[66A]	[2A]	2A	[2]	QPSK	20	18700	1860	1	49	[2]	20	700	1940	2	20	1100	1980	5	10	2525	881.5	[30]	10	9820	2355	[66]	20	67036	2170	2412	24.12	-0.02					
	[2A]	2A	5A	[30A]	[66A]	[2A]	2A	[66]	QPSK	20	132572	1770	1	0	[66]	20	67036	2170	[2]	20	700	1940	2	20	1100	1980	5	10	2525	881.5	[30]	10	9820	2355	2402	24.02	-0.12					
	[2A]	2A	5A	[30A]	[66A]	[2A]	2A	[2]	QPSK	20	18700	1860	1	49	[2]	20	700	1940	2	20	1100	1980	5	10	2525	881.5	[30]	10	9820	2355	[66]	20	67036	2170	2412	24.09	-0.03					
[2A]-[2A]-5A-30A-66A	[2A]	2A	5A	30A	66A			[2]	QPSK	20	18700	1860	1	49	[2]	20	700	1940	2	20	1100	1980	5	10	2525	881.5	30	10	9820	2355	66	20	67036	2170	2412	24.09	-0.03					
	[2A]	2A	5A	30A	66A	[2A]		2	QPSK	10	20525	836.5	1	25	5	10	2525	881.5	30	10	9820	2355	66	20	67036	2170	[2]	20	700	1940	2	20	1100	1980	2412	24.5	-0.06					
	[2A]	2A	5A	30A	66A	[2A]	2A	30A	66A	[2A]	2A	5A	30A	66A	[2A]	2A	5A	30A	66A	[2A]	2A	5A	30A	66A	[2A]	2A	5A	30A	66A	[2A]	2A	5A	30A	66A	[2A]	2A	5A	30A	66A	2301	22.87	-0.14
	[2A]	2A	5A	30A	66A	[2A]	2A	66	QPSK	20	132572	1770	1	0	[66]	20	67036	2170	[2]	20	700	1940	2	20	1100	1980	5	10	2525	881.5	[30]	10	9820	2355	2402	23.96	-0.06					
	[2A]	2A	5A	30A	66A	[2A]	2A	[2]	2	QPSK	20	18700	1860																													

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

E-UTRA CA configuration (BCS)	Bands							UL				DL												LTE Ref 8 Tx Power (dBm)	LTE Ref 10 Tx Power (dBm)	Delta														
	SCC1	SCC2	SCC3	SCC4	SCC5	SCC6	PCC				SCC1				SCC2				SCC3				SCC6																	
	1st	2nd	3rd	4th	5th	6th	7th	Band	Mode	BW (MHz)	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)	Band	BW (MHz)	Channel	Freq. (MHz)			
[2A]-2A-12A-30A-66A	[2A]	2A	12A	30A	66A			[2]	QPSK	20	18700	1860	1	49	[2]	20	700	1940	2	10	18700	1860	12	10	5095	737.5	30	10	9820	2355	66	20	67036	2170	24.12	23.97	-0.15			
	[2A]	2A	12A	30A	66A	[2A]		[2]	QPSK	20	18700	1860	1	49	[2]	20	700	1940	12	10	5095	737.5	30	10	9820	2355	66	20	67036	2170	[2]	20	700	1940	24.12	24.09	-0.03			
	[2A]	2A	12A	30A	66A	[2A]	2A	[2]	QPSK	10	23095	707.5	1	0	12	10	5095	737.5	30	10	9820	2355	66	20	67036	2170	[2]	20	700	1940	2	20	1100	1980	24.12	24.11	-0.09			
	[2A]	2A	12A	30A	66A	[2A]	12A	[2]	QPSK	10	27710	2310	1	25	30	10	9820	2355	66	20	67036	2170	[2]	20	700	1940	2	20	1100	1980	12	10	5095	737.5	23.01	23.52	-0.09			
	[2A]	2A	12A	30A	66A	[2A]	12A	30A	[66]	66	QPSK	20	132572	1770	1	0	66	20	67036	2170	[2]	20	700	1940	2	20	1100	1980	12	10	5095	737.5	30	10	9820	2355	24.02	23.99	-0.03	
	[2A]	2A	12A	30A	66A	[2A]	12A	30A	[66A]	[66A]	[2]	QPSK	20	18700	1860	1	49	[2]	20	700	1940	2	10	18700	1860	12	10	5095	737.5	30	10	9820	2355	[66]	20	67036	2170	24.12	24.06	-0.06
	[2A]	2A	12A	30A	66A	[2A]	12A	30A	[66A]	[66A]	[2]	QPSK	20	18700	1860	1	49	2	20	700	1940	12	10	5095	737.5	30	10	9820	2355	[66]	20	67036	2170	[2]	20	700	1940	24.12	24.08	-0.04
	[2A]	2A	12A	30A	66A	[2A]	12A	30A	[66A]	[66A]	[2]	QPSK	10	23095	707.5	1	0	12	10	5095	737.5	30	10	9820	2355	[66]	20	67036	2170	[2]	20	700	1940	2	20	1100	1980	24.2	24.08	-0.12
	[2A]	2A	12A	30A	66A	[2A]	12A	30A	[66A]	[66A]	[2]	QPSK	10	27710	2310	1	25	30	10	9820	2355	[66]	20	67036	2170	[2]	20	700	1940	2	20	1100	1980	12	10	5095	737.5	23.01	23.87	-0.14
	[2A]	2A	12A	30A	66A	[2A]	12A	30A	[66A]	[66A]	[2]	QPSK	20	132572	1770	1	0	66	20	67036	2170	[2]	20	700	1940	2	20	1100	1980	12	10	5095	737.5	30	10	9820	2355	24.02	23.97	-0.05
[2A]-2A-12A-[30A]-66A	[2A]	2A	12A	[30A]	66A			[2]	QPSK	20	18700	1860	1	49	[2]	20	700	1940	2	10	18700	1860	12	10	5095	737.5	30	10	9820	2355	66	20	67036	2170	24.12	24.01	-0.11			
	[2A]	2A	12A	[30A]	66A	[2A]		[2]	QPSK	20	18700	1860	1	49	[2]	20	700	1940	2	10	18700	1860	12	10	5095	737.5	30	10	9820	2355	[66]	20	67036	2170	24.2	24.2	0			
	[2A]	2A	12A	[30A]	66A	[2A]	2A	[2]	QPSK	10	23095	707.5	1	0	12	10	5095	737.5	30	10	9820	2355	[66]	20	67036	2170	[2]	20	700	1940	2	20	1100	1980	24.2	24.2	0			
	[2A]	2A	12A	[30A]	66A	[2A]	12A	[2]	QPSK	10	27710	2310	1	25	30	10	9820	2355	[66]	20	67036	2170	[2]	20	700	1940	2	20	1100	1980	12	10	5095	737.5	23.01	23.88	-0.13			
	[2A]	2A	12A	[30A]	66A	[2A]	12A	30A	[66A]	[66A]	[2]	QPSK	20	132572	1770	1	0	66	20	67036	2170	[2]	20	700	1940	2	20	1100	1980	12	10	5095	737.5	30	10	9820	2355	24.02	23.94	-0.08
	[2A]	2A	12A	[30A]	66A	[2A]	12A	30A	[66A]	[66A]	[2]	QPSK	20	18700	1860	1	49	[2]	20	700	1940	2	10	18700	1860	12	10	5095	737.5	30	10	9820	2355	[66]	20	67036	2170	24.12	24.2	-0.02
	[2A]	2A	12A	[30A]	66A	[2A]	12A	30A	[66A]	[66A]	[2]	QPSK	10	23095	707.5	1	0	12	10	5095	737.5	30	10	9820	2355	[66]	20	67036	2170	[2]	20	700	1940	2	20	1100	1980	24.2	24.16	-0.04
	[2A]	2A	12A	[30A]	66A	[2A]	12A	30A	[66A]	[66A]	[2]	QPSK	10	27710	2310	1	25	30	10	9820	2355	[66]	20	67036	2170	[2]	20	700	1940	2	20	1100	1980	12	10	5095	737.5	23.01	23.98	-0.03
	[2A]	2A	12A	[30A]	66A	[2A]	12A	30A	[66A]	[66A]	[2]	QPSK	20	132572	1770	1	0	66	20	67036	2170	[2]	20	700	1940	2	20	1100	1980	12	10	5095	737.5	30	10	9820	2355	24.02	23.94	-0.08
	[2A]	2A	12A	[30A]	66A	[2A]	12A	30A	[66A]	[66A]	[2]	QPSK	20	18700	1860	1	49	[2]	20	700	1940	2	10	18700	1860	12	10	5095	737.5	30	10	9820	2355	[66]	20	67036	2170	24.12	24.01	-0.11
[2A]-2A-13A-[66A]-66A	[2A]	2A	13A	[66A]	66A			[2]	QPSK	10	23230	782	1	25	13	10	5230	751	66	20	67036	2170	66	20	66536	2120	2	20	700	1940	2	20	1100	1980	24.2	24.16	-0.04			
	[2A]	2A	13A	[66A]	66A	[2A]		[2]	QPSK	10	23230	782	1	25	13	10	5230	751	66	20	67036	2170	66	20	66536	2120	2	20	700	1940	2	20	1100	1980	24.87	24.79	-0.08			
	[2A]	2A	13A	[66A]	66A	[2A]	13A	[66A]	[66A]	[2]	QPSK	20	132572	1770	1	0	66	20	67036	2170	[2]	20	700	1940	2	20	1100	1980	13	10	5230	751	66	20	66536	2120	24.02	23.99	-0.03	
	[2A]	2A	13A	[66A]	66A	[2A]	13A	[66A]	[66A]	[2]	QPSK	20	18700	1860	1	49	2	20	700	1940	2	10	18700	1860	13	10	5230	751	66	20	67036	2170	[66]	20	66536	2120	24.02	23.94	-0.08	
	[2A]	2A	13A	[66A]	66A	[2A]	13A	[66A]	[66A]	[2]	QPSK	20	18700	1860	1	49	2	20	700	1940	13	10	5230	751	66	20	67036	2170	[66]	20	66536	2120	[2]	20	700	1940	24.12	24.11	-0.01	
	[2A]	2A	13A	[66A]	66A	[2A]	13A	[66A]	[66A]	[2]	QPSK	10	23230	782	1	25	13	10	5230	751	66	20	67036	2170	66	20	66536	2120	2	20	700	1940	2	20	1100	1980	24.87	24.87	0	
	[2A]	2A	13A	[66A]	66A	[2A]	13A	[66A]	[66A]	[2]	QPSK	10	23230	782	1	25	13	10	5230	751	66	20	67036	2170	66	20	66536	2120	2	20	700	1940	2	20	1100	1980	24.87	24.81	-0.01	
	[2A]	2A	13A	[66A]	66A	[2A]	13A	[66A]	[66A]	[2]	QPSK	20	132572	1770	1	0	66	20	67036	2170	[66]	20	67036	2170	[66]	20	66536	2120	[2]	20	700	1940	2	20	1100	1980	24.02	24.01	-0.01	
	[2A]	2A	13A	[66A]	66A	[2A]	13A	[66A]	[66A]	[2]	QPSK	20	18700	1860	1	49	[2]	20	700	1940	2	10	18700	1860	13	10	5230	751	66	20	67036	2170	66	20	66536	2120	24.12	24.01	-0.11	
	[2A]	2A	13A	[66A]	66A	[2A]	13A	[66A]	[66A]	[2]	QPSK	20	18700	1860	1	49	2	20	700	1940	13	10	5230	751	66	20	67036	2170	66	20	66536	2120	[2]	20	700	1940	24.12	23.98	-0.14	
[2A]-2A-13A-66A-66A	[2A]	2A	13A	66A	66A			[2]	QPSK	10	23230	782	1	25	13	10	5230	751	66	20	67036	2170	66	20	66536	2120	2	20	700	1940	2	20	1100	1980	24.87	24.72	-0.15			
	[2A]	2A	13A	66A	66A	[2A]		[2]	QPSK	10	23230	782	1	25	13	10	5230	751	66	20	67036	2170	66	20	66536	2120	2	20	700	1940	2	20	1100	1980	24.87	24.78	-0.09			
	[2A]	2A	13A	66A	66A	[2A]	13A	[66A]	[66A]	[2]	QPSK	20	132572	1770	1	0	66	20	67036	2170	[2]	20	700	1940	2	20	1100	1980	13	10	5230	751	66	20	66536	2120	24.02	23.95	-0.07	
	[2A]	2A																																						

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

E-UTRA CA configuration (BSC)	Bands							UL				DL												LTE Rel 8 Tx Power [dBm]	LTE Rel 10 Tx Power [dBm]	Delta																															
	PCC	SCC1	SCC2	SCC3	SCC4	SCC5	SCC6	Band	Mode	BW (MHz)	Channel	Freq. (MHz)	RB Allocation	RB offset	PCC				SCC1				SCC2				SCC3				SCC4				SCC5				SCC6																		
	1st	2nd	3rd	4th	5th	6th	7th								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)	Band	BW (MHz)	Channel	Freq. (MHz)	Band	BW (MHz)	Channel	Freq. (MHz)	Band	BW (MHz)	Channel	Freq. (MHz)								
2A-2A-14A-30A-66A	2A	2A	14A	[30A]	[66A]			2	QPSK	20	18700	1860	1	49	2	20	700	1940	2	20	1100	1980	14	10	5330	763	[30]	10	9820	2355	66	20	67036	2170	2	20	700	1940	2	20	1100	1980	14	10	5330	763	[30]	10	9820	2355	66	20	67036	2170	2412	24.07	-0.05
	14A	[30A]	66A	2A	2A			14	QPSK	10	23330	793	1	0	14	10	5330	763	[30]	10	9820	2355	66	20	67036	2170	2	20	700	1940	2	20	1100	1980	14	10	5330	763	[30]	10	9820	2355	66	20	67036	2170	2412	24.74	0								
	[30A]	66A	2A	2A	14A			[30]	QPSK	10	27710	2310	1	25	[30]	10	9820	2355	66	20	67036	2170	[2]	20	700	1940	2	20	1100	1980	14	10	5330	763	[30]	10	9820	2355	66	20	67036	2170	2412	23.96	-0.05												
	66A	2A	2A	14A	[30A]			66	QPSK	20	132572	1770	1	0	66	20	67036	2170	[2]	20	700	1940	2	20	1100	1980	14	10	5330	763	[30]	10	9820	2355	66	20	67036	2170	2412	24.1	-0.02																
	2A	2A	14A	[30A]	[66A]			2	QPSK	20	18700	1860	1	49	2	20	700	1940	2	20	1100	1980	14	10	5330	763	[30]	10	9820	2355	66	20	67036	2170	2412	24.1	-0.02																				
	14A	[30A]	[66A]	2A	2A			14	QPSK	10	23330	793	1	0	14	10	5330	763	[30]	10	9820	2355	66	20	67036	2170	2	20	700	1940	2	20	1100	1980	14	10	5330	763	[30]	10	9820	2355	66	20	67036	2170	2412	24.6	-0.14								
	[30A]	[66A]	2A	2A	14A			[30]	QPSK	10	27710	2310	1	25	[30]	10	9820	2355	66	20	67036	2170	[2]	20	700	1940	2	20	1100	1980	14	10	5330	763	[30]	10	9820	2355	66	20	67036	2170	2412	23.89	-0.12												
	[66A]	2A	2A	14A	[30A]			[66]	QPSK	20	132572	1770	1	0	[66]	20	67036	2170	[2]	20	700	1940	2	20	1100	1980	14	10	5330	763	[30]	10	9820	2355	66	20	67036	2170	2412	24.08	-0.04																
	[2A]	2A	14A	30A	66A			[2]	QPSK	20	18700	1860	1	49	[2]	20	700	1940	2	20	1100	1980	14	10	5330	763	[30]	10	9820	2355	66	20	67036	2170	2412	23.98	-0.14																				
	2A	14A	30A	66A	[2A]			2	QPSK	20	18700	1860	1	49	2	20	700	1940	14	10	5330	763	[30]	10	9820	2355	66	20	67036	2170	[2]	20	700	1940	2	20	1100	1980	14	10	5330	763	[30]	10	9820	2355	66	20	67036	2170	2412	24.06	-0.06				
14A	30A	66A	[2A]	2A			14	QPSK	10	23330	793	1	0	14	10	5330	763	[30]	10	9820	2355	66	20	67036	2170	[2]	20	700	1940	2	20	1100	1980	14	10	5330	763	[30]	10	9820	2355	66	20	67036	2170	2412	24.59	-0.15									
30A	66A	[2A]	2A	14A			30	QPSK	10	27710	2310	1	25	30	10	9820	2355	66	20	67036	2170	[2]	20	700	1940	2	20	1100	1980	14	10	5330	763	[30]	10	9820	2355	66	20	67036	2170	2412	23.97	-0.08													
66A	[2A]	2A	14A	30A			66	QPSK	20	132572	1770	1	0	66	20	67036	2170	[2]	20	700	1940	2	20	1100	1980	14	10	5330	763	[30]	10	9820	2355	66	20	67036	2170	2412	23.89	-0.13																	
[2A]	2A	14A	30A	[66A]			[2]	QPSK	20	18700	1860	1	49	[2]	20	700	1940	2	20	1100	1980	14	10	5330	763	[30]	10	9820	2355	66	20	67036	2170	2412	24.08	-0.04																					
2A	14A	30A	[66A]	[2A]			2	QPSK	20	18700	1860	1	49	2	20	700	1940	14	10	5330	763	[30]	10	9820	2355	66	20	67036	2170	[2]	20	700	1940	2	20	1100	1980	14	10	5330	763	[30]	10	9820	2355	66	20	67036	2170	2412	24.07	0.05					
14A	30A	[66A]	[2A]	2A			14	QPSK	10	23330	793	1	0	14	10	5330	763	[30]	10	9820	2355	66	20	67036	2170	[2]	20	700	1940	2	20	1100	1980	14	10	5330	763	[30]	10	9820	2355	66	20	67036	2170	2412	24.69	-0.05									
30A	[66A]	[2A]	2A	14A			30	QPSK	10	27710	2310	1	25	30	10	9820	2355	66	20	67036	2170	[2]	20	700	1940	2	20	1100	1980	14	10	5330	763	[30]	10	9820	2355	66	20	67036	2170	2412	23.01	-0.23													
[66A]	[2A]	2A	14A	30A			[66]	QPSK	20	132572	1770	1	0	[66]	20	67036	2170	[2]	20	700	1940	2	20	1100	1980	14	10	5330	763	[30]	10	9820	2355	66	20	67036	2170	2412	23.97	-0.05																	
[2A]	2A	14A	30A	66A			[2]	QPSK	20	18700	1860	1	49	[2]	20	700	1940	2	20	1100	1980	14	10	5330	763	[30]	10	9820	2355	66	20	67036	2170	2412	24.04	-0.08																					
2A	14A	[30A]	[66A]	[2A]			2	QPSK	20	18700	1860	1	49	2	20	700	1940	14	10	5330	763	[30]	10	9820	2355	66	20	67036	2170	[2]	20	700	1940	2	20	1100	1980	14	10	5330	763	[30]	10	9820	2355	66	20	67036	2170	2412	24.11	-0.01					
14A	[30A]	[66A]	[2A]	2A			14	QPSK	10	23330	793	1	0	14	10	5330	763	[30]	10	9820	2355	66	20	67036	2170	[2]	20	700	1940	2	20	1100	1980	14	10	5330	763	[30]	10	9820	2355	66	20	67036	2170	2412	24.6	-0.14									
[30A]	[66A]	[2A]	2A	14A			[30]	QPSK	10	27710	2310	1	25	[30]	10	9820	2355	66	20	67036	2170	[2]	20	700	1940	2	20	1100	1980	14	10	5330	763	[30]	10	9820	2355	66	20	67036	2170	2412	23.01	-0.27													
66A	[2A]	2A	14A	[30A]			66	QPSK	20	132572	1770	1	0	66	20	67036	2170	[2]	20	700	1940	2	20	1100	1980	14	10	5330	763	[30]	10	9820	2355	66	20	67036	2170	2412	24.01	-0.14																	
[2A]	2A	14A	[30A]	[66A]			[2]	QPSK	20	18700	1860	1	49	[2]	20	700	1940	2	20	1100	1980	14	10	5330	763	[30]	10	9820	2355	66	20	67036	2170	2412	24.05	-0.07																					
2A	14A	[30A]	[66A]	[2A]			2	QPSK	20	18700	1860	1	49	2	20	700	1940	14	10	5330	763	[30]	10	9820	2355	66	20	67036	2170	[2]	20	700	1940	2	20	1100	1980	14	10	5330	763	[30]	10	9820	2355	66	20	67036	2170	2412	24	-0.12					
14A	[30A]	[66A]	[2A]	2A			14	QPSK	10	23330	793	1	0	14	10	5330	763	[30]	10	9820	2355	66	20	67036	2170	[2]	20	700	1940	2	20	1100	1980	14	10	5330	763	[30]	10	9820	2355	66	20	67036	2170	2412	24.72	-0.02									
[30A]	[66A]	[2A]	2A	14A			[30]	QPSK	10	27710	2310	1	25	[30]	10	9820	2355	66	20	67036	2170	[2]	20	700	1940	2	20	1100	1980	14	10	5330	763	[30]	10	9820	2355	66	20	67036	2170	2412	23.01	-0.21													
[66A]	[2A]	2A	14A	[30A]			[66]	QPSK	20	132572	1770	1	0	[66]	20	67036	2170	[2]	20	700	1940	2	20	1100	1980	14	10	5330	763	[30]	10	9820	2355	66	20	67036	2170	2412	23.98	-0.12																	
[2A]	2A	14A	30A	66A			[2]	QPSK	20	18700	1860	1	49	[2]	20	700	1940	2	20	1100	1980	14	10	5330	763	[30]	10	9820	2355	66	20																										

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

E-UTRA CA configuration (BCS)	Bands							UL							DL												LTE Rel 8 Tx Power [dBm]	LTE Rel 10 Tx Power [dBm]	Delta								
	PCC							SCC1							SCC2				SCC3				SCC4														
	1st	2nd	3rd	4th	5th	6th	7th	Band	Mode	BW (MHz)	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)	Band	BW (MHz)	Channel	Freq. (MHz)
2A-13A-48C-66A	2A	13A	48C	48C	[66A]			2	QPSK	20	18700	1860	1	49	2	20	700	1940	13	10	5230	751	48	20	5640	3690	48	20	5642	3670.2	[66]	20	67036	2170	2412	24.12	0
	13A	48C	48C	48C	[66A]	2A		13	QPSK	10	23230	782	1	25	13	10	5230	751	48	20	56640	3690	48	20	5642	3670.2	[66]	20	67036	2170	2	20	700	1940	2487	24.84	-0.03
	[66A]	48C	48C	2A	13A			[66]	QPSK	20	132572	1770	1	0	[66]	20	67036	2170	48	20	56640	3690	48	20	5642	3670.2	[2]	20	700	1940	13	10	5230	751	2402	24.02	0
2A-13A-48C-66A	2A	13A	[48C]	[48C]	[66A]			2	QPSK	20	18700	1860	1	49	2	20	700	1940	13	10	5230	751	[48]	20	5640	3690	[48]	20	5642	3670.2	[66]	20	67036	2170	2412	24.01	-0.11
	13A	[48C]	[48C]	66A	2A			13	QPSK	10	23230	782	1	25	13	10	5230	751	[48]	20	56640	3690	[48]	20	5642	3670.2	[66]	20	67036	2170	2	20	700	1940	2487	24.87	0
	[66A]	[48C]	[48C]	2A	13A			[66]	QPSK	20	132572	1770	1	0	[66]	20	67036	2170	[48]	20	56640	3690	[48]	20	5642	3670.2	[2]	20	700	1940	13	10	5230	751	2402	23.97	-0.05
2A-13A-48C-66A	2A	13A	[48C]	[48C]	[66A]			2	QPSK	20	18700	1860	1	49	2	20	700	1940	13	10	5230	751	[48]	20	5640	3690	[48]	20	5642	3670.2	[66]	20	67036	2170	2412	24.05	-0.07
	13A	[48C]	[48C]	66A	2A			13	QPSK	10	23230	782	1	25	13	10	5230	751	[48]	20	56640	3690	[48]	20	5642	3670.2	[66]	20	67036	2170	2	20	700	1940	2487	24.86	-0.01
	[66A]	[48C]	[48C]	2A	13A			[66]	QPSK	20	132572	1770	1	0	[66]	20	67036	2170	[48]	20	56640	3690	[48]	20	5642	3670.2	[2]	20	700	1940	13	10	5230	751	2402	24.01	-0.01
[2A]-13A-48C-66A	[2A]	13A	48C	48C	66A			[2]	QPSK	20	18700	1860	1	49	[2]	20	700	1940	13	10	5230	751	48	20	5640	3690	48	20	5642	3670.2	[66]	20	67036	2170	2412	24.05	-0.07
	13A	48C	48C	66A	[2A]			13	QPSK	10	23230	782	1	25	13	10	5230	751	48	20	56640	3690	48	20	5642	3670.2	[66]	20	67036	2170	[2]	20	700	1940	2487	24.86	-0.01
	[66A]	[48C]	[48C]	2A	13A			[66]	QPSK	20	132572	1770	1	0	[66]	20	67036	2170	[48]	20	56640	3690	[48]	20	5642	3670.2	[2]	20	700	1940	13	10	5230	751	2402	24.01	-0.01
[2A]-13A-48C-66A	[2A]	13A	48C	48C	66A			[2]	QPSK	20	18700	1860	1	49	[2]	20	700	1940	13	10	5230	751	48	20	5640	3690	48	20	5642	3670.2	[66]	20	67036	2170	2412	24.05	-0.07
	13A	48C	48C	66A	[2A]			13	QPSK	10	23230	782	1	25	13	10	5230	751	48	20	56640	3690	48	20	5642	3670.2	[66]	20	67036	2170	[2]	20	700	1940	2487	24.86	-0.01
	[66A]	[48C]	[48C]	2A	13A			[66]	QPSK	20	132572	1770	1	0	[66]	20	67036	2170	[48]	20	56640	3690	[48]	20	5642	3670.2	[2]	20	700	1940	13	10	5230	751	2402	24.01	-0.01
[2A]-13A-48C-66A	[2A]	13A	48C	48C	66A			[2]	QPSK	20	18700	1860	1	49	[2]	20	700	1940	13	10	5230	751	48	20	5640	3690	48	20	5642	3670.2	[66]	20	67036	2170	2412	24.05	-0.07
	13A	48C	48C	66A	[2A]			13	QPSK	10	23230	782	1	25	13	10	5230	751	48	20	56640	3690	48	20	5642	3670.2	[66]	20	67036	2170	[2]	20	700	1940	2487	24.86	-0.01
	[66A]	[48C]	[48C]	2A	13A			[66]	QPSK	20	132572	1770	1	0	[66]	20	67036	2170	[48]	20	56640	3690	[48]	20	5642	3670.2	[2]	20	700	1940	13	10	5230	751	2402	24.01	-0.01
[2A]-13A-48C-66A	[2A]	13A	48C	48C	66A			[2]	QPSK	20	18700	1860	1	49	[2]	20	700	1940	13	10	5230	751	48	20	5640	3690	48	20	5642	3670.2	[66]	20	67036	2170	2412	24.05	-0.07
	13A	48C	48C	66A	[2A]			13	QPSK	10	23230	782	1	25	13	10	5230	751	48	20	56640	3690	48	20	5642	3670.2	[66]	20	67036	2170	[2]	20	700	1940	2487	24.86	-0.01
	[66A]	[48C]	[48C]	2A	13A			[66]	QPSK	20	132572	1770	1	0	[66]	20	67036	2170	[48]	20	56640	3690	[48]	20	5642	3670.2	[2]	20	700	1940	13	10	5230	751	2402	24.01	-0.01
[2A]-13A-48C-66A	[2A]	13A	48C	48C	66A			[2]	QPSK	20	18700	1860	1	49	[2]	20	700	1940	13	10	5230	751	48	20	5640	3690	48	20	5642	3670.2	[66]	20	67036	2170	2412	24.05	-0.07
	13A	48C	48C	66A	[2A]			13	QPSK	10	23230	782	1	25	13	10	5230	751	48	20	56640	3690	48	20	5642	3670.2	[66]	20	67036	2170	[2]	20	700	1940	2487	24.86	-0.01
	[66A]	[48C]	[48C]	2A	13A			[66]	QPSK	20	132572	1770	1	0	[66]	20	67036	2170	[48]	20	56640	3690	[48]	20	5642	3670.2	[2]	20	700	1940	13	10	5230	751	2402	24.01	-0.01
2A-13A-48D	2A	13A	[48D]	[48D]	[48D]			2	QPSK	20	18700	1860	1	49	2	20	700	1940	13	10	5230	751	[48]	20	5640	3690	[48]	20	5642	3670.2	[66]	20	67036	2170	2412	24.11	-0.09
	13A	[48D]	[48D]	[48D]	2A			13	QPSK	10	23230	782	1	25	13	10	5230	751	[48]	20	56640	3690	[48]	20	5642	3670.2	[66]	20	67036	2170	[2]	20	700	1940	2487	24.77	-0.11
	[66A]	[48C]	[48C]	[66A]	[2A]			[66]	QPSK	20	132572	1770	1	0	[66]	20	67036	2170	[48]	20	56640	3690	[48]	20	5642	3670.2	[2]	20	700	1940	13	10	5230	751	2402	23.97	-0.05
[2A]-13A-48D	[2A]	13A	48D	48D	48D			[2]	QPSK	20	18700	1860	1	49	[2]	20	700	1940	13	10	5230	751	48	20	5640	3690	48	20	5642	3670.2	[66]	20	67036	2170	2412	24.07	-0.02
	13A	48D	48D	48D	[2A]			13	QPSK	10	23230	782	1	25	13	10	5230	751	48	20	56640	3690	48	20	5642	3670.2	[66]	20	67036	2170	[2]	20	700	1940	2487	24.73	-0.14
	[66A]	[48C]	[48C]	[2A]	13A			[66]	QPSK	20	132572	1770	1	0	[66]	20	67036	2170	[48]	20	56640	3690	[48]	20	5642	3670.2	[2]	20	700	1940	13	10	5230	751	2402	24.12	0
[2A]-13A-48D	[2A]	13A	48D	48D	48D			[2]	QPSK	20	18700	1860	1	49	[2]	20	700	1940	13	10	5230	751	48	20	5640	3690	48	20	5642	3670.2	[66]	20	67036	2170	2412	24.12	0
	13A	48D	48D	48D	[2A]			13	QPSK	10	23230	782	1	25	13	10	5230	751	[48]	20	56640	3690	[48]	20	5642	3670.2	[66]	20	67036	2170	[2]	20	700	1940	2487	24.74	-0.13
	[66A]	[48C]	[48C]	[2A]	13A			[66]	QPSK	20	132572	1770	1	0	[66]	20	67036	2170	[48]	20	56640	3690	[48]	20	5642	3670.2	[2]	20	700	1940	13	10	5230	751	2402	24.12	0
2A-14A-30A-66A-66A	2A	14A	[30A]	[66A]	[66A]			2	QPSK	20	18700	1860	1	49	2	20	700	1940	14	10	5330	763	30	10	9820	2355	[66]	20	67036	2170	66	20	66536	2120	2474	24.64	-0.1
	14A	[30A]	[66A]	66A	2A			14	QPSK	10	23330	793	1	0	14	10	5330	763	30	10	9820	2355	[66]	20	67036	2170	66	20	66536	2120	2	20	700	1940	2487	24.87	0
	[66A]	[66A]	66A	2A	14A			[66]	QPSK	20	132572	1770	1	0	[66]	20	67036	2170	66	20	66536	2120	2	20	700	1940	14	10	5330	763	30	10	9820	2355	2402	23.99	-0.09
2A-14A-30A-66A-66A	2A	14A	[30A]	[66A]	[66A]			2	QPSK	20	18700	1860	1	49	2	20	700	1940	14	10	5330	763	30	10	9820	2355	[66]	20	67036	2170	66	20	66536	2120	2412	24.11	-0.09
	14A	[30A]	[66A]	66A	2A			14	QPSK	10	23330	793	1	0	14	10	5330	763	30	10	9820	2355	[66]	20	67036	2170	66	20	66536	2120	2	20	700	1940	2487	24.87	0
	[66A]	[66A]	66A	2A	14A			[66]	QPSK	20	132572	1770	1	0	[66]	20	67036	2170																			

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

E-UTRA CA configuration (BCS)	Bands							UL							DL																												LTE Ref # Tx Power [dBm]	LTE Ref # Tx Power [dBm]	Delta							
	PCC	SCC1	SCC2	SCC3	SCC4	SCC5	SCC6	PCC							SCC1							SCC2							SCC4							SCC5										SCC6						
								Band	Mode	BW (MHz)	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)	Band	BW (MHz)	Channel	Freq. (MHz)	Band	BW (MHz)	Channel	Freq. (MHz)	Band	BW (MHz)	Channel	Freq. (MHz)										
	1st	2nd	3rd	4th	5th	6th	7th	Band	Mode	BW (MHz)	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)	Band	BW (MHz)	Channel	Freq. (MHz)	Band	BW (MHz)	Channel	Freq. (MHz)														
[2A]-14A-[30A]-66A-66A	[2A]	14A	[30A]	66A	66A			[2]	QPSK	20	18700	793	1	49	[2]	20	700	1940	14	10	5330	763	[30]	10	9820	2355	66	20	67036	2170	66	20	66536	2120	24.12	24.08	-0.04															
	14A	[30A]	66A	66A	[2A]			14	QPSK	10	23330	793	1	0	14	10	5330	763	[30]	10	9820	2355	66	20	67036	2170	66	20	66536	2120	[2]	20	700	1940	24.74	24.63	-0.11															
	[30A]	66A	66A	[2A]	14A			[30]	QPSK	10	27710	2310	1	25	[30]	10	9820	2355	66	20	67036	2170	66	20	66536	2120	[2]	20	700	1940	14	10	5330	763	23.01	22.92	-0.09															
	66A	66A	[2A]	14A	[30A]			66	QPSK	20	13252	1770	1	0	66	20	67036	2170	66	20	66536	2120	[2]	20	700	1940	14	10	5330	763	[30]	10	9820	2355	24.02	24.02	0.00															
[2A]-14A-[30A]-[66A]-66A	[2A]	14A	[30A]	[66A]	66A			[2]	QPSK	20	18700	793	1	49	[2]	20	700	1940	14	10	5330	763	[30]	10	9820	2355	[66]	20	67036	2170	66	20	66536	2120	24.12	24.02	-0.11															
	14A	[30A]	[66A]	66A	[2A]			14	QPSK	10	23330	793	1	0	14	10	5330	763	[30]	10	9820	2355	[66]	20	67036	2170	66	20	66536	2120	[2]	20	700	1940	24.74	24.63	-0.11															
	[30A]	[66A]	66A	[2A]	14A			[30]	QPSK	10	27710	2310	1	25	[30]	10	9820	2355	[66]	20	67036	2170	66	20	66536	2120	[2]	20	700	1940	14	10	5330	763	23.01	22.97	-0.04															
	[66A]	66A	[2A]	14A	[30A]			[66]	QPSK	20	13252	1770	1	0	[66]	20	67036	2170	[2]	20	700	1940	14	10	5330	763	[30]	10	9820	2355	[66]	20	66536	2120	24.02	23.88	-0.14															
[2A]-14A-[30A]-[66A]-[66A]	[2A]	14A	[30A]	[66A]	[66A]			[2]	QPSK	20	13252	1770	1	0	[2]	20	700	1940	14	10	5330	763	[30]	10	9820	2355	[66]	20	67036	2170	66	20	66536	2120	24.02	23.96	-0.06															
	14A	[30A]	[66A]	[66A]	[2A]			14	QPSK	10	23330	793	1	0	14	10	5330	763	[30]	10	9820	2355	[66]	20	67036	2170	[66]	20	66536	2120	[2]	20	700	1940	24.74	24.71	-0.03															
	[30A]	[66A]	[66A]	[2A]	14A			[30]	QPSK	10	27710	2310	1	25	[30]	10	9820	2355	[66]	20	67036	2170	[66]	20	66536	2120	[2]	20	700	1940	14	10	5330	763	23.01	22.91	-0.10															
	[66A]	[66A]	[2A]	14A	[30A]			[66]	QPSK	20	13252	1770	1	0	[66]	20	67036	2170	[66]	20	66536	2120	[2]	20	700	1940	14	10	5330	763	[30]	10	9820	2355	24.02	23.92	-0.09															
2A-48A-48C-[66A]	2A	48A	48C	48C	[66A]			2	QPSK	20	18700	1860	1	49	2	20	700	1940	48	20	5640	3690	48	20	55340	3560	48	20	55338	3579.8	[66]	20	67036	2170	24.02	23.93	-0.09															
	[66A]	48A	48C	48C	2A			[66]	QPSK	20	13252	1770	1	0	[66]	20	67036	2170	48	20	5640	3690	48	20	55340	3560	48	20	55338	3579.8	2	20	700	1940	24.02	23.87	-0.15															
	2A	48A	[48C]	[48C]	66A			2	QPSK	20	18700	1860	1	49	2	20	700	1940	48	20	5640	3690	[48]	20	55340	3560	[48]	20	55338	3579.8	66	20	67036	2170	24.12	23.98	-0.14															
	[66A]	48A	[48C]	[48C]	2A			[66]	QPSK	20	13252	1770	1	0	[66]	20	67036	2170	48	20	5640	3690	[48]	20	55340	3560	[48]	20	55338	3579.8	2	20	700	1940	24.02	23.9	-0.12															
2A-48A-[48C]-66A	2A	48A	[48C]	[48C]	66A			2	QPSK	20	18700	1860	1	49	2	20	700	1940	48	20	5640	3690	[48]	20	55340	3560	[48]	20	55338	3579.8	[66]	20	67036	2170	24.12	23.98	-0.14															
	[66A]	48A	[48C]	[48C]	2A			[66]	QPSK	20	13252	1770	1	0	[66]	20	67036	2170	48	20	5640	3690	[48]	20	55340	3560	[48]	20	55338	3579.8	2	20	700	1940	24.02	23.9	-0.12															
	2A	48A	[48C]	[48C]	66A			2	QPSK	20	18700	1860	1	49	2	20	700	1940	48	20	5640	3690	[48]	20	55340	3560	[48]	20	55338	3579.8	66	20	67036	2170	24.12	23.98	-0.14															
	[66A]	48A	[48C]	[48C]	2A			[66]	QPSK	20	13252	1770	1	0	[66]	20	67036	2170	48	20	5640	3690	[48]	20	55340	3560	[48]	20	55338	3579.8	2	20	700	1940	24.02	23.87	-0.15															
2A-[48A]-48C-66A	2A	[48A]	48C	48C	66A			2	QPSK	20	18700	1860	1	49	2	20	700	1940	[48]	20	5640	3690	[48]	20	55340	3560	[48]	20	55338	3579.8	66	20	67036	2170	24.02	23.87	-0.15															
	[66A]	48A	48C	48C	2A			[66]	QPSK	20	13252	1770	1	0	[66]	20	67036	2170	[48]	20	5640	3690	[48]	20	55340	3560	[48]	20	55338	3579.8	2	20	700	1940	24.02	23.87	-0.15															
	2A	[48A]	48C	48C	66A			2	QPSK	20	18700	1860	1	49	2	20	700	1940	[48]	20	5640	3690	[48]	20	55340	3560	[48]	20	55338	3579.8	66	20	67036	2170	24.12	24.01	-0.11															
	[66A]	48A	48C	48C	2A			[66]	QPSK	20	13252	1770	1	0	[66]	20	67036	2170	[48]	20	5640	3690	[48]	20	55340	3560	[48]	20	55338	3579.8	2	20	700	1940	24.02	23.93	-0.09															
2A-[48A]-[48C]-66A	2A	[48A]	[48C]	[48C]	66A			2	QPSK	20	18700	1860	1	49	2	20	700	1940	[48]	20	5640	3690	[48]	20	55340	3560	[48]	20	55338	3579.8	[66]	20	67036	2170	24.12	24.05	-0.07															
	[66A]	48A	[48C]	[48C]	2A			[66]	QPSK	20	13252	1770	1	0	[66]	20	67036	2170	[48]	20	5640	3690	[48]	20	55340	3560	[48]	20	55338	3579.8	2	20	700	1940	24.02	23.9	-0.12															
	2A	[48A]	[48C]	[48C]	66A			2	QPSK	20	18700	1860	1	49	2	20	700	1940	[48]	20	5640	3690	[48]	20	55340	3560	[48]	20	55338	3579.8	[66]	20	67036	2170	24.12	24.05	-0.07															
	[66A]	48A	[48C]	[48C]	2A			[66]	QPSK	20	13252	1770	1	0	[66]	20	67036	2170	[48]	20	5640	3690	[48]	20	55340	3560	[48]	20	55338	3579.8	2	20	700	1940	24.02	23.87	-0.15															
[2A]-48A-48C-66A	[2A]	48A	48C	48C	66A			[66]	QPSK	20	18700	1860	1	49	[2]	20	700	1940	48	20	5640	3690	48	20	55340	3560	48	20	55338	3579.8	[2]	20	700	1940	24.02	23.9	-0.12															
	66A	48A	48C	48C	[2A]			[66]	QPSK	20	13252	1770	1	0	[66]	20	67036	2170	48	20	5640	3690	48	20	55340	3560	48	20	55338	3579.8	[2]	20	700	1940	24.02	23.94	-0.08															
	[2A]	48A	48C	48C	66A			[66]	QPSK	20	18700	1860	1	49	[2]	20	700	1940	48	20	5640	3690	48	20	55340	3560	48	20	55338	3579.8	[66]	20	67036	2170	24.12	24.2	-0.12															
	[66A]	48A	48C	48C	[2A]			[66]	QPSK	20	13252	1770	1	0	[66]	20	67036	2170	48	20	5640	3690	48	20	55340	3560	48	20	55338	3579.8	[2]	20	700	1940	24.02	23.93	-0.09															
[2A]-48A-[48C]-66A	[2A]	48A	[48C]	[48C]	66A			[66]	QPSK	20	18700	1860	1	49	[2]	20	700	1940	48	20	5640	3690	[48]	20	55340	3560	[48]	20	55338	3579.8	[66]	20	67036	2170	24.12	24.06	-0.06															
	[66A]	48A	[48C]	[48C]	2A																																															

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

E-UTRA CA configuration (BSC)	Bands							UL							DL																												LTE Rel 8 Tx Power [dBm]	LTE Rel 10 Tx Power [dBm]	Delta
	PCC	SCC1	SCC2	SCC3	SCC4	SCC5	SCC6	Band	Mode	BW (MHz)	Channel	Freq. (MHz)	RB Allocation	RB offset	PCC				SCC1				SCC2				SCC4				SCC5				SCC6										
	1st	2nd	3rd	4th	5th	6th	7th								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)	Band	BW (MHz)	Channel	Freq. (MHz)	Band	BW (MHz)	Channel	Freq. (MHz)			
[2A]-[4B]-[6A]	[2A]	[4B]	[4B]	[4B]	[6A]			[2]	QPSK	20	18700	1860	1	49	[2]	20	700	1940	[4B]	20	56640	3690	[4B]	20	56442	3670.2	[4B]	20	56244	3650.4	[6]	20	67036	2170	2412	23.97	-0.15								
[2A]-[4B]	[2A]	[4B]	[4B]	[4B]	[2A]			[66]	QPSK	20	132572	1770	1	0	[66]	20	67036	2170	[4B]	20	56640	3690	[4B]	20	55340	3560	[4B]	20	55538	3579.8	[2]	20	700	1940	2402	23.89	-0.13								
[2A]-[4B]	[2A]	[4B]	[4B]	[4B]	[4B]			[2]	QPSK	20	18700	1860	1	49	[2]	20	700	1940	[4B]	20	56640	3690	[4B]	20	56442	3670.2	[4B]	20	56244	3650.4	[4B]	20	56046	3630.6	2412	24.11	-0.01								
4A-[4B]	[4A]	[4B]	[4B]	[4B]	[4B]			4	QPSK	20	20175	1732.5	1	0	4	20	2175	2132.5	[4B]	20	56640	3690	[4B]	20	56442	3670.2	[4B]	20	56244	3650.4	[4B]	20	56046	3630.6	2412	23.79	-0.11								
[4A]-4B	[4A]	4B	4B	4B	4B			4	QPSK	20	20175	1732.5	1	0	4	20	2175	2132.5	4B	20	56640	3690	4B	20	56442	3670.2	4B	20	56046	3630.6	4B	20	56046	3630.6	2412	23.77	-0.02								
[4A]-[4B]	[4A]	[4B]	[4B]	[4B]	[4B]			4	QPSK	20	20175	1732.5	1	0	4	20	2175	2132.5	[4B]	20	56640	3690	[4B]	20	56442	3670.2	[4B]	20	56046	3630.6	[4B]	20	56046	3630.6	2412	23.79	0								
13A-[4B]-[6A]	[13A]	[4B]	[4B]	[4B]	[6A]			13	QPSK	10	23230	782	1	25	13	10	5230	751	[4B]	20	56640	3690	4B	20	56442	3670.2	4B	20	56244	3650.4	[6]	20	67036	2170	2487	24.74	-0.14								
[6A]-[4B]	[6A]	[4B]	[4B]	[4B]	[13A]			[66]	QPSK	20	132572	1770	1	0	[66]	20	67036	2170	4B	20	56640	3690	4B	20	55340	3560	4B	20	55538	3579.8	[13]	10	5230	751	2402	23.98	-0.08								
13A-[4B]-6A	[13A]	[4B]	[4B]	[4B]	[6A]			13	QPSK	10	23230	782	1	25	13	10	5230	751	[4B]	20	56640	3690	[4B]	20	56442	3670.2	[4B]	20	56244	3650.4	[6]	20	67036	2170	2487	24.77	-0.06								
[6A]-[4B]	[6A]	[4B]	[4B]	[4B]	[13A]			66	QPSK	20	132572	1770	1	0	66	20	67036	2170	[4B]	20	56640	3690	[4B]	20	56442	3670.2	[4B]	20	56244	3650.4	[13]	10	5230	751	2402	23.96	-0.01								
13A-[4B]-[6A]	[13A]	[4B]	[4B]	[4B]	[6A]			13	QPSK	10	23230	782	1	25	13	10	5230	751	[4B]	20	56640	3690	[4B]	20	56442	3670.2	[4B]	20	56244	3650.4	[6]	20	67036	2170	2487	24.79	-0.08								
[6A]-[4B]	[6A]	[4B]	[4B]	[4B]	[13A]			[66]	QPSK	20	132572	1770	1	0	[66]	20	67036	2170	[4B]	20	56640	3690	[4B]	20	55340	3560	[4B]	20	55538	3579.8	[13]	10	5230	751	2402	23.87	-0.15								
4B-4B-4B-4B	[66A]	[4B]	[4B]	[4B]	[4B]			[66]	QPSK	20	132572	1770	1	0	[66]	20	67036	2170	4B	20	56640	3690	4B	20	56442	3670.2	4B	20	55340	3560	4B	20	55538	3579.8	2402	23.94	-0.08								
4B-4B-4B-4B	[66A]	[4B]	[4B]	[4B]	[4B]			66	QPSK	20	132572	1770	1	0	66	20	67036	2170	[4B]	20	56640	3690	[4B]	20	56442	3670.2	[4B]	20	55340	3560	4B	20	55538	3579.8	2402	23.87	-0.15								
4B-4B-4B-4B	[66A]	[4B]	[4B]	[4B]	[4B]			[66]	QPSK	20	132572	1770	1	0	[66]	20	67036	2170	4B	20	56640	3690	4B	20	56442	3670.2	4B	20	55340	3560	4B	20	55538	3579.8	2402	23.94	-0.08								
4B-4B-4B-4B	[66A]	[4B]	[4B]	[4B]	[4B]			66	QPSK	20	132572	1770	1	0	66	20	67036	2170	[4B]	20	56640	3690	[4B]	20	56442	3670.2	[4B]	20	55340	3560	4B	20	55538	3579.8	2402	23.99	-0.03								
4B-4B-4B-4B	[66A]	[4B]	[4B]	[4B]	[4B]			[66]	QPSK	20	132572	1770	1	0	[66]	20	67036	2170	[4B]	20	56640	3690	[4B]	20	56442	3670.2	[4B]	20	55340	3560	4B	20	55538	3579.8	2402	23.99	-0.03								
4B-4B-4B-4B	[66A]	[4B]	[4B]	[4B]	[4B]			66	QPSK	20	132572	1770	1	0	66	20	67036	2170	[4B]	20	56640	3690	4B	20	56442	3670.2	4B	20	55340	3560	4B	20	55538	3579.8	2402	24.01	-0.01								
4B-4B-4B-4B	[66A]	[4B]	[4B]	[4B]	[4B]			[66]	QPSK	20	132572	1770	1	0	[66]	20	67036	2170	4B	20	56640	3690	4B	20	55340	3560	4B	20	55538	3579.8	4B	20	55736	3599.6	2402	23.88	-0.14								
4B-4B-4B-4B	[66A]	[4B]	[4B]	[4B]	[4B]			66	QPSK	20	132572	1770	1	0	66	20	67036	2170	4B	20	56640	3690	4B	20	55340	3560	4B	20	55538	3579.8	4B	20	55736	3599.6	2402	23.92	-0.11								
4B-4B-4B-4B	[66A]	[4B]	[4B]	[4B]	[4B]			66	QPSK	20	132572	1770	1	0	66	20	67036	2170	4B	20	56640	3690	4B	20	55340	3560	4B	20	55538	3579.8	4B	20	55736	3599.6	2402	23.91	-0.11								
4B-4B-4B-4B	[66A]	[4B]	[4B]	[4B]	[4B]			66	QPSK	20	132572	1770	1	0	66	20	67036	2170	[4B]	20	56640	3690	4B	20	55340	3560	4B	20	55538	3579.8	4B	20	55736	3599.6	2402	23.87	-0.15								
4B-4B-4B-4B	[66A]	[4B]	[4B]	[4B]	[4B]			66	QPSK	20	132572	1770	1	0	66	20	67036	2170	[4B]	20	56640	3690	4B	20	55340	3560	4B	20	55538	3579.8	4B	20	55736	3599.6	2402	23.9	-0.12								
4B-4B-4B-4B	[66A]	[4B]	[4B]	[4B]	[4B]			66	QPSK	20	132572	1770	1	0	66	20	67036	2170	[4B]	20	56640	3690	4B	20	55340	3560	4B	20	55538	3579.8	4B	20	55736	3599.6	2402	23.98	-0.04								
4B-4B-4B-4B	[66A]	[4B]	[4B]	[4B]	[4B]			66	QPSK	20	132572	1770	1	0	66	20	67036	2170	[4B]	20	56640	3690	4B	20	55340	3560	4B	20	55538	3579.8	4B	20	55736	3599.6	2402	23.92	-0.11								
4B-4B-4B-4B	[66A]	[4B]	[4B]	[4B]	[4B]			66	QPSK	20	132572	1770	1	0	66	20	67036	2170	[4B]	20	56640	3690	4B	20	55340	3560	4B	20	55538	3579.8	4B	20	55736	3599.6	2402	23.92	-0.11								
4B-4B-4B-4B	[66A]	[4B]	[4B]	[4B]	[4B]			66	QPSK	20	132572	1770	1	0	66	20	67036	2170	[4B]	20	56640	3690	4B	20	55340	3560	4B	20	55538	3579.8	4B	20	55736	3599.6	2402	23.92	-0.11								
4B-4B-4B-4B	[66A]	[4B]	[4B]	[4B]	[4B]			66	QPSK	20	132572	1770	1	0	66	20	67036	2170	[4B]	20	56640	3690	4B	20	55340	3560	4B	20	55538	3579.8	4B	20	55736	3599.6	2402	23.92	-0.11								
4B-4B-4B-4B	[66A]	[4B]	[4B]	[4B]	[4B]			66	QPSK	20	132572	1770	1	0	66	20	67036	2170	[4B]	20	56640	3690	4B	20	55340	3560	4B	20	55538	3579.8	4B	20	55736	3599.6	2402	23.92	-0.11								
4B-4B-4B-4B	[66A]	[4B]	[4B]	[4B]	[4B]			66	QPSK	20	132572	1770	1	0	66	20	67036	2170	[4B]	20	56640	3690	4B	20	55340	3560	4B	20	55538	3579.8	4B	20	55736	3599.6	2402	23.92	-0.11								
4B-4B-4B-4B	[66A]	[4B]	[4B]	[4B]	[4B]			66	QPSK	20	132572	1770	1	0	66	20	67036	2170	[4B]	20	56640	3690	4B	20	55340	3560	4B	20	55538	3579.8	4B	20	55736	3599.6	2402	23.92	-0.11								
4B-4B-4B-4B	[66A]	[4B]	[4B]	[4B]	[4B]			66	QPSK	20	132572	1770	1	0	66	20	67036	2170	[4B]	20	56640	3690	4B	20	55340	3560	4B	20	55538	3579.8	4B	20	55736	3599.6	2402	23.92	-0.11								
4B-4B-4B-4B	[66A]	[4B]	[4B]	[4B]	[4B]			66	QPSK	20	132572	1770	1	0	66	20	67036	2170	[4B]	20	56640	3690	4B	20	55340	3560	4B	20	55538																

