



FCC SAR Test Report

LTE Band 38																	
BW	MCS Index	RB Size	RB Offset	Low	Mid	High	3GPP MPR (dB)	BW	MCS Index	RB Size	RB Offset	Low	Mid	High	3GPP MPR (dB)		
		Channel		37850	38000	38150				Channel		37825	38000	38175			
		Frequency(MHz)		2580	2595	2610				Frequency(MHz)		2577.5	2595	2612.5			
20M	QPSK	1	0	23.94	23.87	23.96	0	15M	QPSK	1	0	23.93	23.83	23.88	0		
		1	50	24.01	23.91	23.92	0			1	37	23.97	23.88	23.86	0		
		1	99	23.81	23.72	23.82	0			1	74	23.79	23.71	23.78	0		
		50	0	23.05	22.94	22.95	1			36	0	22.99	22.89	22.94	1		
		50	25	23.07	22.98	23.10	1			36	19	23.06	22.96	23.05	1		
		50	50	23.07	23.00	22.92	1			36	39	22.99	22.93	22.90	1		
	16QAM	100	0	22.91	22.91	22.95	1		75	0	22.90	22.87	22.92	1			
		1	0	22.95	22.87	22.97	1		1	0	22.92	22.86	22.91	1			
		1	50	23.05	23.08	23.04	1		1	37	23.01	23.03	23.02	1			
		1	99	22.98	22.88	22.96	1		1	74	22.92	22.86	22.93	1			
		50	0	22.05	22.10	22.03	2		36	0	22.03	22.02	22.02	2			
		50	25	22.20	22.13	22.12	2		36	19	22.12	22.09	22.07	2			
	64QAM	50	50	22.07	22.04	22.06	2		36	39	22.04	21.98	22.04	2			
		100	0	22.03	22.06	22.11	2		75	0	22.02	22.01	22.03	2			
		1	0	21.86	21.76	21.86	2		1	0	21.80	21.73	21.82	2			
		1	50	21.86	21.85	21.80	2		1	37	21.84	21.78	21.75	2			
		1	99	21.85	21.81	21.75	2		1	74	21.79	21.73	21.73	2			
		50	0	21.06	21.06	21.14	3		36	0	21.05	21.04	21.06	3			
	10M	QPSK	50	25	21.19	21.12	21.17		3	5M	QPSK	36	19	21.12	21.04	21.11	3
			50	50	21.08	20.97	21.05		3			36	39	21.06	20.96	21.01	3
			100	0	21.02	21.01	21.03		3			75	0	21.00	20.93	21.02	3
			1	0	23.86	23.83	23.91		0			1	0	23.89	23.80	23.91	0
			1	24	23.99	23.83	23.91		0			1	12	23.99	23.83	23.90	0
			1	49	23.73	23.68	23.77		0			1	24	23.76	23.64	23.81	0
16QAM		25	0	23.02	22.88	22.93	1	16QAM	12		0	23.01	22.89	22.90	1		
		25	12	23.05	22.91	23.05	1		12		6	22.99	22.97	23.05	1		
		25	25	23.01	22.92	22.90	1		12		13	23.03	22.95	22.91	1		
		50	0	22.90	22.89	22.87	1		25		0	22.85	22.89	22.90	1		
		1	0	22.88	22.79	22.91	1		1		0	22.88	22.82	22.95	1		
		1	24	23.02	23.02	23.02	1		1		12	22.97	23.06	22.99	1		
64QAM		1	49	22.96	22.81	22.91	1		64QAM		1	24	22.96	22.80	22.94	1	
		25	0	21.99	22.02	22.01	2				12	0	21.97	22.04	21.95	2	
		25	12	22.18	22.05	22.11	2				12	6	22.14	22.11	22.06	2	
		25	25	21.99	22.00	22.01	2				12	13	22.00	21.99	22.04	2	
		50	0	22.01	21.98	22.10	2				25	0	21.97	21.99	22.06	2	
		1	0	21.78	21.72	21.81	2				1	0	21.79	21.71	21.84	2	



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LTE Band 41																
BW	MCS Index	RB Size	RB Offset	Low	Mid	High	3GPP MPR (dB)	BW	MCS Index	RB Size	RB Offset	Low	Mid	High	3GPP MPR (dB)	
		Channel		40140	40640	41140				Channel		40115	40640	41165		
		Frequency(MHz)		2545	2595	2645				Frequency(MHz)		2542.5	2595	2647.5		
20M	QPSK	1	0	23.97	23.88	23.82	0	15M	QPSK	1	0	23.96	23.80	23.76	0	
		1	50	24.14	24.04	23.87	0			1	37	24.10	23.98	23.85	0	
		1	99	23.94	23.83	23.83	0			1	74	23.92	23.79	23.77	0	
		50	0	23.12	22.96	22.87	1			36	0	23.06	22.95	22.86	1	
		50	25	23.15	23.06	23.09	1			36	19	23.14	23.01	23.02	1	
		50	50	23.21	23.10	22.94	1			36	39	23.13	23.08	22.92	1	
	16QAM	100	0	23.06	22.99	22.97	1		75	0	23.05	22.96	22.92	1		
		1	0	23.06	22.99	22.87	1		16QAM	1	0	23.03	22.93	22.85	1	
		1	50	23.21	23.18	23.14	1			1	37	23.17	23.16	23.07	1	
		1	99	23.11	23.01	22.98	1			1	74	23.05	22.98	22.94	1	
		50	0	22.14	22.07	21.93	2			36	0	22.12	22.06	21.92	2	
		50	25	22.33	22.28	22.16	2			36	19	22.25	22.23	22.11	2	
	50	50	22.22	22.11	22.04	2	36			39	22.19	22.09	22.02	2		
	64QAM	100	0	22.12	22.12	22.03	2		75	0	22.11	22.04	21.97	2		
		1	0	21.88	21.78	21.70	2		64QAM	1	0	21.82	21.74	21.69	2	
		1	50	22.04	21.96	21.89	2			1	37	22.02	21.91	21.81	2	
		1	99	21.88	21.77	21.62	2			1	74	21.82	21.75	21.61	2	
		50	0	21.10	21.10	20.95	3			36	0	21.09	21.02	20.92	3	
		50	25	21.36	21.27	21.21	3			36	19	21.29	21.21	21.17	3	
	50	50	21.25	21.12	21.02	3	36			39	21.23	21.08	21.00	3		
	10M	QPSK	100	0	21.14	21.01	21.00		3	75	0	21.12	21.00	20.97	3	
			Channel		40090	40640	41190		Channel		40065	40640	41215			
			Frequency(MHz)		2540	2595	2650		Frequency(MHz)		2537.5	2595	2652.5			
			QPSK	1	0	23.89	23.83		23.74	0	5M	QPSK	1	0	23.92	23.83
1				24	24.12	24.03	23.85	0	1	12			24.12	24.02	23.80	0
1				49	23.86	23.78	23.75	0	1	24			23.89	23.82	23.77	0
25		0		23.09	22.94	22.84	1	12	0	23.08			22.91	22.80	1	
25		12		23.13	23.01	23.07	1	12	6	23.07			23.01	23.01	1	
25		25		23.15	23.08	22.89	1	12	13	23.17			23.09	22.88	1	
16QAM		50	0	23.05	22.91	22.95	1	25	0	23.00		22.94	22.95	1		
		1	0	22.99	22.93	22.82	1	16QAM	1	0		22.99	22.97	22.82	1	
		1	24	23.18	23.16	23.12	1		1	12		23.13	23.13	23.13	1	
		1	49	23.09	22.96	22.90	1		1	24		23.09	22.99	22.93	1	
		25	0	22.08	22.05	21.87	2		12	0		22.06	21.99	21.91	2	
		25	12	22.31	22.27	22.10	2		12	6		22.27	22.22	22.11	2	
25		25	22.14	22.06	21.97	2	12		13	22.15		22.09	22.02	2		
64QAM		50	0	22.10	22.11	21.95	2	25	0	22.06		22.07	22.02	2		
		1	0	21.80	21.73	21.68	2	64QAM	1	0		21.81	21.76	21.65	2	
		1	24	22.01	21.94	21.81	2		1	12		21.96	21.90	21.84	2	
		1	49	21.86	21.72	21.56	2		1	24		21.80	21.75	21.61	2	
		25	0	21.04	21.08	20.88	3		12	0		21.06	21.02	20.93	3	
		25	12	21.35	21.19	21.18	3		12	6		21.28	21.25	21.16	3	
25		25	21.20	21.06	21.00	3	12		13	21.21		21.04	20.98	3		
50		0	21.13	20.99	20.94	3	25	0	21.08	20.98		20.92	3			

FCC SAR Test Report

<Power Confirmation for SAR Testing for LTE Uplink CA>

The conducted power for uplink CA active was measured on the highest reported SAR configuration for each exposure condition with both two carrier components was set to largest channel bandwidth.

CA_7C							
Combination 20MHz+20MHz (100RB+100RB)							
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)
			RB Size	RB offset	RB Size	RB offset	
20850	21048	QPSK	1	50	0	0	23.81
		16QAM	1	50	0	0	23.23
		64QAM	1	50	0	0	22.35
21001	21199	QPSK	1	50	0	0	23.81
		16QAM	1	50	0	0	23.49
		64QAM	1	50	0	0	22.50
21152	21350	QPSK	1	50	0	0	23.87
		16QAM	1	50	0	0	23.27
		64QAM	1	50	0	0	22.46

CA_38C							
Combination 20MHz+20MHz (100RB+100RB)							
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)
			RB Size	RB offset	RB Size	RB offset	
37850	38048	QPSK	1	50	0	0	23.40
		16QAM	1	50	0	0	22.83
		64QAM	1	50	0	0	21.97
37901	38099	QPSK	1	50	0	0	23.86
		16QAM	1	50	0	0	22.87
		64QAM	1	50	0	0	21.95
37952	38150	QPSK	1	50	0	0	23.62
		16QAM	1	50	0	0	22.71
		64QAM	1	50	0	0	21.93

SAR Measurements for Intra-Band Contiguous CA

The SAR testing was performed with the single carrier (uplink CA is inactive) for all test positions for each exposure condition. The LTE uplink CA active was verified with maximum output power on the highest SAR configuration of single carrier for each exposure condition. For intra-band contiguous CA, the SCC channel was set to closest available contiguous channel.

FCC SAR Test Report

< WWAN-Ant 0 Reduced Power for Body >

Band	GSM1900		
Channel	512	661	810
Frequency (MHz)	1850.2	1880.0	1909.8
Maximum Burst-Averaged Output Power			
GSM (GMSK, 1Tx-slot)	26.32	26.16	26.04
GPRS (GMSK, 1Tx-slot)	26.34	26.12	26.06
GPRS (GMSK, 2Tx-slot)	23.14	23.07	23.25
GPRS (GMSK, 3Tx-slot)	21.18	21.10	21.29
GPRS (GMSK, 4Tx-slot)	19.68	19.63	19.96
EDGE (8PSK, 1Tx-slot)	25.40	25.09	25.35
EDGE (8PSK, 2Tx-slot)	22.68	22.63	22.96
EDGE (8PSK, 3Tx-slot)	21.13	21.11	21.25
EDGE (8PSK, 4Tx-slot)	19.98	19.88	20.00
Maximum Frame-Averaged Output Power			
GSM (GMSK, 1Tx-slot)	17.32	17.16	17.04
GPRS (GMSK, 1Tx-slot)	17.34	17.12	17.06
GPRS (GMSK, 2Tx-slot)	17.14	17.07	17.25
GPRS (GMSK, 3Tx-slot)	16.92	16.84	17.03
GPRS (GMSK, 4Tx-slot)	16.68	16.63	16.96
EDGE (8PSK, 1Tx-slot)	16.40	16.09	16.35
EDGE (8PSK, 2Tx-slot)	16.68	16.63	16.96
EDGE (8PSK, 3Tx-slot)	16.87	16.85	16.99
EDGE (8PSK, 4Tx-slot)	16.98	16.88	17.00

Band	WCDMA Band II			WCDMA Band IV			3GPP MPR (dB)
Channel	9262	9400	9538	1312	1413	1513	
Frequency (MHz)	1852.4	1880.0	1907.6	1712.4	1732.6	1752.6	
RMC 12.2K	20.12	20.28	20.37	20.19	20.16	20.03	-
HSDPA Subtest-1	19.96	20.01	19.98	19.88	19.88	19.93	0
HSDPA Subtest-2	19.94	20.01	19.99	19.90	19.86	19.94	0
HSDPA Subtest-3	19.55	19.60	19.50	19.49	19.56	19.45	0.5
HSDPA Subtest-4	19.54	19.53	19.50	19.50	19.48	19.51	0.5
DC-HSDPA Subtest-1	19.90	20.05	19.97	19.82	19.90	19.92	0
DC-HSDPA Subtest-2	19.88	19.98	19.97	19.86	19.80	19.95	0
DC-HSDPA Subtest-3	19.52	19.48	19.52	19.49	19.52	19.49	0.5
DC-HSDPA Subtest-4	19.52	19.46	19.50	19.51	19.44	19.51	0.5
HSUPA Subtest-1	19.50	19.53	19.48	19.53	19.48	19.46	0
HSUPA Subtest-2	19.84	19.82	19.85	19.78	19.75	19.80	2
HSUPA Subtest-3	19.47	19.48	19.45	19.50	19.43	19.47	1
HSUPA Subtest-4	19.51	19.62	19.64	19.43	19.60	19.58	2
HSUPA Subtest-5	19.93	20.01	19.95	19.85	19.90	19.83	0



FCC SAR Test Report

LTE Band 2															
BW	MCS Index	RB Size	RB Offset	Low	Mid	High	3GPP MPR (dB)	BW	MCS Index	RB Size	RB Offset	Low	Mid	High	3GPP MPR (dB)
		Channel		18700	18900	19100				Channel		18675	18900	19125	
		Frequency(MHz)		1860	1880	1900				Frequency(MHz)		1857.5	1880	1902.5	
20M	QPSK	1	0	20.22	20.33	20.29	0	15M	QPSK	1	0	20.21	20.29	20.21	0
		1	50	20.31	20.44	20.39	0			1	37	20.27	20.41	20.33	0
		1	99	20.08	20.24	20.23	0			1	74	20.06	20.23	20.19	0
		50	0	19.93	20.15	20.08	1			36	0	19.87	20.10	20.07	1
		50	25	20.04	20.16	20.14	1			36	19	20.03	20.14	20.09	1
		50	50	19.93	20.10	20.14	1			36	39	19.85	20.03	20.12	1
	100	0	19.95	20.13	20.04	1	75		0	19.94	20.09	20.01	1		
	16QAM	1	0	19.99	20.20	20.10	1		1	0	19.96	20.19	20.04	1	
		1	50	20.20	20.39	20.39	1		1	37	20.16	20.34	20.37	1	
		1	99	19.99	20.22	20.17	1		1	74	19.93	20.20	20.14	1	
		50	0	19.99	20.13	20.13	2		36	0	19.97	20.05	20.12	2	
		50	25	20.00	20.17	20.17	2		36	19	19.92	20.13	20.12	2	
		50	50	20.04	20.17	20.14	2		36	39	20.01	20.11	20.12	2	
	100	0	19.96	20.06	20.05	2	75		0	19.95	20.01	19.97	2		
	64QAM	1	0	19.87	20.06	19.98	2		1	0	19.81	20.03	19.94	2	
		1	50	19.96	20.05	20.09	2		1	37	19.94	19.98	20.04	2	
		1	99	19.81	19.95	19.92	2		1	74	19.75	19.87	19.90	2	
		50	0	19.99	20.09	20.02	3		36	0	19.98	20.07	19.94	3	
		50	25	19.89	20.09	20.09	3		36	19	19.82	20.01	20.03	3	
		50	50	19.93	20.11	20.05	3		36	39	19.91	20.10	20.01	3	
	100	0	19.95	20.07	20.09	3	75		0	19.93	19.99	20.08	3		
10M	QPSK	Channel		18650	18900	19150	3GPP MPR (dB)	5M	QPSK	Channel		18625	18900	19175	3GPP MPR (dB)
		Frequency(MHz)		1855	1880	1905				Frequency(MHz)		1852.5	1880	1907.5	
		1	0	20.14	20.29	20.24				0	1	0	20.17	20.26	
		1	24	20.29	20.36	20.38	0			1	12	20.29	20.36	20.37	0
		1	49	20.00	20.20	20.18	0			1	24	20.03	20.16	20.22	0
		25	0	19.90	20.09	20.06	1			12	0	19.89	20.10	20.03	1
	25	12	20.02	20.09	20.09	1	12		6	19.96	20.15	20.09	1		
	25	25	19.87	20.02	20.12	1	12		13	19.89	20.05	20.13	1		
	50	0	19.94	20.11	19.96	1	25		0	19.89	20.11	19.99	1		
	16QAM	1	0	19.92	20.12	20.04	1		1	0	19.92	20.15	20.08	1	
		1	24	20.17	20.33	20.37	1		1	12	20.12	20.37	20.34	1	
		1	49	19.97	20.15	20.12	1		1	24	19.97	20.14	20.15	1	
		25	0	19.93	20.05	20.11	2		12	0	19.91	20.07	20.05	2	
		25	12	19.98	20.09	20.16	2		12	6	19.94	20.15	20.11	2	
		25	25	19.96	20.13	20.09	2		12	13	19.97	20.12	20.12	2	
	50	0	19.94	19.98	20.04	2	25		0	19.90	19.99	20.00	2		
	64QAM	1	0	19.79	20.02	19.93	2		1	0	19.80	20.01	19.96	2	
		1	24	19.93	19.99	20.07	2		1	12	19.88	20.03	20.03	2	
		1	49	19.79	19.88	19.87	2		1	24	19.73	19.94	19.90	2	
		25	0	19.93	20.01	20.00	3		12	0	19.95	20.04	19.94	3	
		25	12	19.88	20.07	20.01	3		12	6	19.81	20.08	20.07	3	
25		25	19.88	20.03	19.99	3	12	13	19.89	20.06	19.97	3			
50	0	19.94	20.01	20.07	3	25	0	19.89	20.05	20.06	3				
3M	QPSK	Channel		18615	18900	19185	3GPP MPR (dB)	1.4M	QPSK	Channel		18607	18900	19193	3GPP MPR (dB)
		Frequency(MHz)		1851.5	1880	1908.5				Frequency(MHz)		1850.7	1880	1909.3	
		1	0	20.16	20.31	20.23				0	1	0	20.14	20.29	
		1	7	20.24	20.39	20.37	0			1	2	20.28	20.38	20.37	0
		1	14	20.02	20.17	20.18	0			1	5	20.06	20.17	20.18	0
		8	0	19.86	20.10	20.06	1			3	0	19.87	20.07	20.06	1
	8	3	19.96	20.14	20.08	1	3		1	20.03	20.14	20.06	1		
	8	7	19.85	20.09	20.12	1	3		3	19.88	20.02	20.08	1		
	15	0	19.91	20.08	19.96	1	6		0	19.94	20.07	20.02	1		
	16QAM	1	0	19.91	20.19	20.08	1		1	0	19.94	20.13	20.05	1	
		1	7	20.15	20.34	20.35	1		1	2	20.18	20.31	20.37	1	
		1	14	19.97	20.14	20.16	1		1	5	19.94	20.14	20.16	1	
		8	0	19.91	20.09	20.08	2		3	0	19.95	20.08	20.08	2	
		8	3	19.97	20.11	20.15	2		3	1	19.92	20.16	20.12	2	
		8	7	20.02	20.10	20.09	2		3	3	20.00	20.12	20.13	2	
	15	0	19.90	19.98	20.03	2	6		0	19.90	20.04	20.00	2		
	64QAM	1	0	19.86	20.04	19.90	2		1	0	19.80	20.01	19.96	2	
		1	7	19.91	19.97	20.03	2		1	2	19.88	20.03	20.04	2	
		1	14	19.80	19.89	19.90	2		1	5	19.79	19.87	19.90	2	
		8	0	19.94	20.07	19.95	3		3	0	19.91	20.03	19.94	3	
		8	3	19.87	20.01	20.08	3		3	1	19.83	20.07	20.03	3	
8		7	19.85	20.07	20.00	3	3	3	19.88	20.03	20.04	3			
15	0	19.93	19.99	20.08	3	6	0	19.91	20.02	20.04	3				



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LTE Band 4																	
BW	MCS Index	RB Size	RB Offset	Low	Mid	High	3GPP MPR (dB)	BW	MCS Index	RB Size	RB Offset	Low	Mid	High	3GPP MPR (dB)		
		Channel		20050	20175	20300				Channel		20025	20175	20325			
		Frequency(MHz)		1720	1732.5	1745				Frequency(MHz)		1717.5	1732.5	1747.5			
20M	QPSK	1	0	20.44	20.36	20.30	0	15M	QPSK	1	0	20.43	20.32	20.22	0		
		1	50	20.54	20.48	20.41	0			1	37	20.50	20.45	20.35	0		
		1	99	20.32	20.29	20.26	0			1	74	20.30	20.28	20.22	0		
		50	0	20.15	20.18	20.09	1			36	0	20.09	20.13	20.08	1		
		50	25	20.28	20.21	20.17	1			36	19	20.27	20.19	20.12	1		
		50	50	20.14	20.12	20.14	1			36	39	20.06	20.05	20.12	1		
	16QAM	100	0	20.14	20.13	20.02	1		75	0	20.13	20.09	19.99	1			
		1	0	20.29	20.31	20.19	1		1	0	20.26	20.30	20.13	1			
		1	50	20.40	20.40	20.38	1		1	37	20.36	20.35	20.36	1			
		1	99	20.17	20.21	20.14	1		1	74	20.11	20.19	20.11	1			
		50	0	20.20	20.15	20.13	2		36	0	20.18	20.07	20.12	2			
		50	25	20.24	20.22	20.20	2		36	19	20.16	20.18	20.15	2			
	64QAM	50	50	20.22	20.16	20.11	2		36	39	20.19	20.10	20.09	2			
		100	0	20.19	20.10	20.07	2		75	0	20.18	20.05	19.99	2			
		1	0	20.08	20.08	19.98	2		1	0	20.02	20.05	19.94	2			
		1	50	20.23	20.13	20.15	2		1	37	20.21	20.06	20.10	2			
		1	99	20.01	19.96	19.91	2		1	74	19.95	19.88	19.89	2			
		50	0	20.20	20.11	20.02	3		36	0	20.19	20.09	19.94	3			
	10M	QPSK	50	25	20.15	20.16	20.14		3	36	19	20.08	20.08	20.08	3		
			50	50	20.15	20.14	20.06		3	36	39	20.13	20.13	20.02	3		
			100	0	20.17	20.10	20.10		3	75	0	20.15	20.02	20.09	3		
	16QAM		1	0	20.32	20.32	20.25		0	5M	QPSK	1	0	20.39	20.29	20.25	0
			1	24	20.52	20.40	20.40		0			1	12	20.52	20.40	20.39	0
			1	49	20.24	20.25	20.21		0			1	24	20.27	20.21	20.25	0
25		0	20.12	20.12	20.07	1	12	0	20.11			20.13	20.04	1			
25		12	20.26	20.14	20.12	1	12	6	20.20			20.20	20.12	1			
25		25	20.08	20.04	20.12	1	12	13	20.10			20.07	20.13	1			
64QAM		50	0	20.13	20.11	19.94	1	25	0		20.08	20.11	19.97	1			
		1	0	20.22	20.23	20.13	1	1	0		20.22	20.26	20.17	1			
		1	24	20.37	20.34	20.36	1	1	12		20.32	20.38	20.33	1			
		1	49	20.15	20.14	20.09	1	1	24		20.15	20.13	20.12	1			
		25	0	20.14	20.07	20.11	2	12	0		20.12	20.09	20.05	2			
		25	12	20.22	20.14	20.19	2	12	6		20.18	20.20	20.14	2			
16QAM	25	25	20.14	20.12	20.06	2	12	13	20.15	20.11	20.09	2					
	50	0	20.17	20.02	20.06	2	25	0	20.13	20.03	20.02	2					
	1	0	20.00	20.04	19.93	2	1	0	20.01	20.03	19.96	2					
	1	24	20.20	20.07	20.13	2	1	12	20.15	20.11	20.09	2					
	1	49	19.99	19.89	19.86	2	1	24	19.93	19.95	19.89	2					
	25	0	20.14	20.03	20.00	3	12	0	20.16	20.06	19.94	3					
	64QAM	25	12	20.14	20.14	20.06	3	12	6	20.07	20.15	20.12	3				
		25	25	20.10	20.06	20.00	3	12	13	20.11	20.09	19.98	3				
		50	0	20.16	20.04	20.08	3	25	0	20.11	20.08	20.07	3				
		16QAM	1	0	20.38	20.34	20.24	0	1.4M	QPSK	1	0	20.36	20.32	20.25	0	
			1	7	20.47	20.43	20.39	0			1	2	20.51	20.42	20.39	0	
			1	14	20.26	20.22	20.21	0			1	5	20.30	20.22	20.21	0	
8	0		20.08	20.13	20.07	1	3	0			20.09	20.10	20.07	1			
8	3		20.20	20.19	20.11	1	3	1			20.27	20.19	20.09	1			
8	7		20.06	20.11	20.12	1	3	3			20.09	20.04	20.08	1			
64QAM	15		0	20.10	20.08	19.94	1	6		0	20.13	20.07	20.00	1			
	1		0	20.21	20.30	20.17	1	1		0	20.24	20.24	20.14	1			
	1		7	20.35	20.35	20.34	1	1		2	20.38	20.32	20.36	1			
	1		14	20.15	20.13	20.13	1	1		5	20.12	20.13	20.13	1			
	8		0	20.12	20.11	20.08	2	3		0	20.16	20.10	20.08	2			
	8		3	20.21	20.16	20.18	2	3		1	20.16	20.21	20.15	2			
16QAM	8	7	20.20	20.09	20.06	2	3	3	20.18	20.11	20.10	2					
	15	0	20.13	20.02	20.05	2	6	0	20.13	20.08	20.02	2					
	1	0	20.07	20.06	19.90	2	1	0	20.01	20.03	19.96	2					
	1	7	20.18	20.05	20.09	2	1	2	20.15	20.11	20.10	2					
	1	14	20.00	19.90	19.89	2	1	5	19.99	19.88	19.89	2					
	8	0	20.15	20.09	19.95	3	3	0	20.12	20.05	19.94	3					
	64QAM	8	3	20.13	20.08	20.13	3	3	1	20.09	20.14	20.08	3				
		8	7	20.07	20.10	20.01	3	3	3	20.10	20.06	20.05	3				
		15	0	20.15	20.02	20.09	3	6	0	20.13	20.05	20.05	3				



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LTE Band 7															
BW	MCS Index	RB Size	RB Offset	Low	Mid	High	3GPP MPR (dB)	BW	MCS Index	RB Size	RB Offset	Low	Mid	High	3GPP MPR (dB)
		Channel		20850	21100	21350				Channel		20825	21100	21375	
		Frequency(MHz)		2510	2535	2560				Frequency(MHz)		2507.5	2535	2562.5	
20M	QPSK	1	0	18.08	17.99	18.00	0	15M	QPSK	1	0	18.07	17.95	17.92	0
		1	50	18.29	18.22	18.31	0			1	37	18.25	18.19	18.22	0
		1	99	18.19	18.10	18.17	0			1	74	18.17	18.09	18.13	0
		50	0	17.87	17.81	17.99	1			36	0	17.81	17.76	17.98	1
		50	25	18.08	17.96	18.18	1			36	19	18.07	17.94	18.13	1
		50	50	17.93	17.87	18.02	1			36	39	17.85	17.80	18.00	1
		100	0	17.97	17.83	17.98	1			75	0	17.96	17.79	17.95	1
	16QAM	1	0	18.00	17.94	18.04	1		16QAM	1	0	17.97	17.93	17.98	1
		1	50	18.14	18.14	18.22	1			1	37	18.10	18.09	18.20	1
		1	99	18.07	18.00	18.13	1			1	74	18.01	17.98	18.10	1
		50	0	17.95	17.82	18.03	2			36	0	17.93	17.74	18.02	2
		50	25	18.02	17.95	18.09	2			36	19	17.94	17.91	18.04	2
		50	50	17.93	17.89	18.00	2			36	39	17.90	17.83	17.98	2
		100	0	17.97	17.89	17.91	2			75	0	17.96	17.84	17.83	2
	64QAM	1	0	17.79	17.88	17.82	2		64QAM	1	0	17.73	17.85	17.78	2
		1	50	18.04	17.95	18.10	2			1	37	18.02	17.88	18.05	2
		1	99	17.90	17.82	17.93	2			1	74	17.84	17.74	17.91	2
		50	0	17.89	17.87	17.88	3			36	0	17.88	17.85	17.80	3
		50	25	17.94	17.92	17.98	3			36	19	17.87	17.84	17.92	3
		50	50	17.93	17.91	17.99	3			36	39	17.91	17.90	17.95	3
		100	0	17.98	17.84	18.00	3			75	0	17.96	17.76	17.99	3
	BW	MCS Index	Channel			3GPP MPR (dB)	BW		MCS Index	Channel			3GPP MPR (dB)		
			Frequency(MHz)	20800	21100					21400	Frequency(MHz)	20775		21100	21425
	10M	QPSK	1	0	18.00	17.95	17.95		0	5M	QPSK	1	0	18.03	17.92
1			24	18.27	18.14	18.30	0	1	12			18.27	18.14	18.29	0
1			49	18.11	18.06	18.12	0	1	24			18.14	18.02	18.16	0
25			0	17.84	17.75	17.97	1	12	0			17.83	17.76	17.94	1
25			12	18.06	17.89	18.13	1	12	6			18.00	17.95	18.13	1
25			25	17.87	17.79	18.00	1	12	13			17.89	17.82	18.01	1
50			0	17.96	17.81	17.90	1	25	0			17.91	17.81	17.93	1
16QAM		1	0	17.93	17.86	17.98	1	16QAM	1		0	17.93	17.89	18.02	1
		1	24	18.11	18.08	18.20	1		1		12	18.06	18.12	18.17	1
		1	49	18.05	17.93	18.08	1		1		24	18.05	17.92	18.11	1
		25	0	17.89	17.74	18.01	2		12		0	17.87	17.76	17.95	2
		25	12	18.00	17.87	18.08	2		12		6	17.96	17.93	18.03	2
		25	25	17.85	17.85	17.95	2		12		13	17.86	17.84	17.98	2
		50	0	17.95	17.81	17.90	2		25		0	17.91	17.82	17.86	2
64QAM		1	0	17.71	17.84	17.77	2	64QAM	1		0	17.72	17.83	17.80	2
		1	24	18.01	17.89	18.08	2		1		12	17.96	17.93	18.04	2
		1	49	17.88	17.75	17.88	2		1		24	17.82	17.81	17.91	2
		25	0	17.83	17.79	17.86	3		12		0	17.85	17.82	17.80	3
		25	12	17.93	17.90	17.90	3		12		6	17.86	17.91	17.96	3
		25	25	17.88	17.83	17.93	3		12		13	17.89	17.86	17.91	3
		50	0	17.97	17.78	17.98	3		25		0	17.92	17.82	17.97	3



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LTE Band 38															
BW	MCS Index	RB Size	RB Offset	Low	Mid	High	3GPP MPR (dB)	BW	MCS Index	RB Size	RB Offset	Low	Mid	High	3GPP MPR (dB)
		Channel		37850	38000	38150				Channel		37825	38000	38175	
		Frequency(MHz)		2580	2595	2610				Frequency(MHz)		2577.5	2595	2612.5	
20M	QPSK	1	0	19.57	19.47	19.32	0	15M	QPSK	1	0	19.56	19.43	19.24	0
		1	50	19.70	19.62	19.55	0			1	37	19.66	19.59	19.49	0
		1	99	19.57	19.47	19.38	0			1	74	19.55	19.46	19.34	0
		50	0	19.54	19.47	19.49	1			36	0	19.48	19.42	19.48	1
		50	25	19.69	19.56	19.52	1			36	19	19.68	19.54	19.47	1
		50	50	19.52	19.45	19.44	1			36	39	19.44	19.38	19.42	1
		100	0	19.63	19.48	19.47	1			75	0	19.62	19.44	19.44	1
	16QAM	1	0	19.40	19.33	19.27	1		16QAM	1	0	19.37	19.32	19.21	1
		1	50	19.41	19.40	19.32	1			1	37	19.37	19.35	19.30	1
		1	99	19.27	19.19	19.16	1			1	74	19.21	19.17	19.13	1
		50	0	19.46	19.32	19.37	2			36	0	19.44	19.24	19.36	2
		50	25	19.65	19.57	19.55	2			36	19	19.57	19.53	19.50	2
		50	50	19.55	19.50	19.45	2			36	39	19.52	19.44	19.43	2
		100	0	19.63	19.54	19.40	2			75	0	19.62	19.49	19.32	2
	64QAM	1	0	19.46	19.44	19.32	2		64QAM	1	0	19.40	19.41	19.28	2
		1	50	19.61	19.51	19.49	2			1	37	19.59	19.44	19.44	2
		1	99	19.43	19.34	19.29	2			1	74	19.37	19.26	19.27	2
		50	0	19.55	19.52	19.37	3			36	0	19.54	19.50	19.29	3
		50	25	19.57	19.54	19.44	3			36	19	19.50	19.46	19.38	3
		50	50	19.51	19.48	19.40	3			36	39	19.49	19.47	19.36	3
		100	0	19.59	19.44	19.44	3			75	0	19.57	19.36	19.43	3
BW	MCS Index	Channel		37800	38000	38200	3GPP MPR (dB)	BW	MCS Index	Channel		37775	38000	38225	3GPP MPR (dB)
Frequency(MHz)		2575	2595	2615	Frequency(MHz)					2572.5	2595	2617.5			
10M	QPSK	1	0	19.49	19.43	19.27	0	5M	QPSK	1	0	19.52	19.40	19.27	0
		1	24	19.68	19.54	19.54	0			1	12	19.68	19.54	19.53	0
		1	49	19.49	19.43	19.33	0			1	24	19.52	19.39	19.37	0
		25	0	19.51	19.41	19.47	1			12	0	19.50	19.42	19.44	1
		25	12	19.67	19.49	19.47	1			12	6	19.61	19.55	19.47	1
		25	25	19.46	19.37	19.42	1			12	13	19.48	19.40	19.43	1
		50	0	19.62	19.46	19.39	1			25	0	19.57	19.46	19.42	1
	16QAM	1	0	19.33	19.25	19.21	1		16QAM	1	0	19.33	19.28	19.25	1
		1	24	19.38	19.34	19.30	1			1	12	19.33	19.38	19.27	1
		1	49	19.25	19.12	19.11	1			1	24	19.25	19.11	19.14	1
		25	0	19.40	19.24	19.35	2			12	0	19.38	19.26	19.29	2
		25	12	19.63	19.49	19.54	2			12	6	19.59	19.55	19.49	2
		25	25	19.47	19.46	19.40	2			12	13	19.48	19.45	19.43	2
		50	0	19.61	19.46	19.39	2			25	0	19.57	19.47	19.35	2
	64QAM	1	0	19.38	19.40	19.27	2		64QAM	1	0	19.39	19.39	19.30	2
		1	24	19.58	19.45	19.47	2			1	12	19.53	19.49	19.43	2
		1	49	19.41	19.27	19.24	2			1	24	19.35	19.33	19.27	2
		25	0	19.49	19.44	19.35	3			12	0	19.51	19.47	19.29	3
		25	12	19.56	19.52	19.36	3			12	6	19.49	19.53	19.42	3
		25	25	19.46	19.40	19.34	3			12	13	19.47	19.43	19.32	3
		50	0	19.58	19.38	19.42	3			25	0	19.53	19.42	19.41	3



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LTE Band 41															
BW	MCS Index	RB Size	RB Offset	Low	Mid	High	3GPP MPR (dB)	BW	MCS Index	RB Size	RB Offset	Low	Mid	High	3GPP MPR (dB)
		Channel		40140	40640	41140				Channel		40115	40640	41165	
		Frequency(MHz)		2545	2595	2645				Frequency(MHz)		2542.5	2595	2647.5	
20M	QPSK	1	0	20.07	19.84	19.77	0	15M	QPSK	1	0	20.06	19.76	19.71	0
		1	50	20.25	20.05	19.96	0			1	37	20.21	19.99	19.94	0
		1	99	20.08	19.87	19.80	0			1	74	20.06	19.83	19.74	0
		50	0	20.11	19.91	19.89	1			36	0	20.05	19.90	19.88	1
		50	25	20.20	19.98	19.97	1			36	19	20.19	19.93	19.90	1
		50	50	20.14	19.94	19.88	1			36	39	20.06	19.92	19.86	1
		100	0	20.24	19.94	19.94	1			75	0	20.23	19.91	19.89	1
	16QAM	1	0	19.82	19.62	19.64	1		16QAM	1	0	19.79	19.56	19.62	1
		1	50	19.99	19.83	19.69	1			1	37	19.95	19.81	19.62	1
		1	99	19.83	19.62	19.61	1			1	74	19.77	19.59	19.57	1
		50	0	20.12	19.84	19.87	2			36	0	20.10	19.83	19.86	2
		50	25	20.23	19.99	20.00	2			36	19	20.15	19.94	19.95	2
		50	50	20.15	19.98	19.91	2			36	39	20.12	19.96	19.89	2
		100	0	20.16	19.99	19.86	2			75	0	20.15	19.91	19.80	2
	64QAM	1	0	20.06	19.81	19.72	2		64QAM	1	0	20.00	19.77	19.71	2
		1	50	20.17	19.97	19.97	2			1	37	20.15	19.92	19.89	2
		1	99	20.01	19.79	19.66	2			1	74	19.95	19.77	19.65	2
		50	0	20.02	19.92	19.83	3			36	0	20.01	19.84	19.80	3
		50	25	20.19	20.00	19.86	3			36	19	20.12	19.94	19.82	3
		50	50	20.05	19.94	19.89	3			36	39	20.03	19.90	19.87	3
		100	0	20.16	19.92	19.83	3			75	0	20.14	19.91	19.80	3
BW	MCS Index	Channel		40090	40640	41190	3GPP MPR (dB)	BW	MCS Index	Channel		40065	40640	41215	3GPP MPR (dB)
Frequency(MHz)		2540	2595	2650	Frequency(MHz)					2537.5	2595	2652.5			
10M	QPSK	1	0	19.99	19.79	19.69	0	5M	QPSK	1	0	20.02	19.79	19.71	0
		1	24	20.23	20.04	19.94	0			1	12	20.23	20.03	19.89	0
		1	49	20.00	19.82	19.72	0			1	24	20.03	19.86	19.74	0
		25	0	20.08	19.89	19.86	1			12	0	20.07	19.86	19.82	1
		25	12	20.18	19.93	19.95	1			12	6	20.12	19.93	19.89	1
		25	25	20.08	19.92	19.83	1			12	13	20.10	19.93	19.82	1
		50	0	20.23	19.86	19.92	1			25	0	20.18	19.89	19.92	1
	16QAM	1	0	19.75	19.56	19.59	1		16QAM	1	0	19.75	19.60	19.59	1
		1	24	19.96	19.81	19.67	1			1	12	19.91	19.78	19.68	1
		1	49	19.81	19.57	19.53	1			1	24	19.81	19.60	19.56	1
		25	0	20.06	19.82	19.81	2			12	0	20.04	19.76	19.85	2
		25	12	20.21	19.98	19.94	2			12	6	20.17	19.93	19.95	2
		25	25	20.07	19.93	19.84	2			12	13	20.08	19.96	19.89	2
		50	0	20.14	19.98	19.78	2			25	0	20.10	19.94	19.85	2
	64QAM	1	0	19.98	19.76	19.70	2		64QAM	1	0	19.99	19.79	19.67	2
		1	24	20.14	19.95	19.89	2			1	12	20.09	19.91	19.92	2
		1	49	19.99	19.74	19.60	2			1	24	19.93	19.77	19.65	2
		25	0	19.96	19.90	19.76	3			12	0	19.98	19.84	19.81	3
		25	12	20.18	19.92	19.83	3			12	6	20.11	19.98	19.81	3
		25	25	20.00	19.88	19.87	3			12	13	20.01	19.86	19.85	3
		50	0	20.15	19.90	19.77	3			25	0	20.10	19.89	19.75	3

CA_7C							
Combination 20MHz+20MHz (100RB+100RB)							
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)
			RB Size	RB offset	RB Size	RB offset	
20850	21048	QPSK	50	25	0	0	18.24
		16QAM	50	25	0	0	17.91
		64QAM	50	25	0	0	17.69
21001	21199	QPSK	50	25	0	0	17.86
		16QAM	50	25	0	0	17.81
		64QAM	50	25	0	0	17.71
21152	21350	QPSK	50	25	0	0	17.86
		16QAM	50	25	0	0	17.81
		64QAM	50	25	0	0	17.66

CA_38C							
Combination 20MHz+20MHz (100RB+100RB)							
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)
			RB Size	RB offset	RB Size	RB offset	
37850	38048	QPSK	50	25	0	0	19.47
		16QAM	50	25	0	0	19.38
		64QAM	50	25	0	0	19.31
37901	38099	QPSK	50	25	0	0	19.61
		16QAM	50	25	0	0	19.39
		64QAM	50	25	0	0	19.33
37952	38150	QPSK	50	25	0	0	19.72
		16QAM	50	25	0	0	19.56
		64QAM	50	25	0	0	19.46

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< WWAN-Ant 1 Full Power >

Band	GSM850			GSM1900		
	Channel	128	189	251	512	661
Frequency (MHz)	824.2	836.4	848.8	1850.2	1880.0	1909.8
Maximum Burst-Averaged Output Power						
GSM (GMSK, 1Tx-slot)	32.54	32.68	32.56	28.88	28.73	28.75
GPRS (GMSK, 1Tx-slot)	32.54	32.62	32.50	28.83	28.65	28.67
GPRS (GMSK, 2Tx-slot)	30.86	30.92	30.82	26.42	26.28	26.31
GPRS (GMSK, 3Tx-slot)	29.20	29.35	29.22	24.79	24.80	24.95
GPRS (GMSK, 4Tx-slot)	27.36	27.44	27.27	23.21	23.18	23.50
EDGE (8PSK, 1Tx-slot)	26.36	26.40	26.33	25.39	25.28	25.48
EDGE (8PSK, 2Tx-slot)	23.91	23.90	23.96	22.99	22.87	23.22
EDGE (8PSK, 3Tx-slot)	22.37	22.30	22.41	21.37	21.30	21.61
EDGE (8PSK, 4Tx-slot)	21.05	21.07	20.89	20.05	20.11	20.25
Maximum Frame-Averaged Output Power						
GSM (GMSK, 1Tx-slot)	23.54	23.68	23.56	19.88	19.73	19.75
GPRS (GMSK, 1Tx-slot)	23.54	23.62	23.50	19.83	19.65	19.67
GPRS (GMSK, 2Tx-slot)	24.86	24.92	24.82	20.42	20.28	20.31
GPRS (GMSK, 3Tx-slot)	24.94	25.09	24.96	20.53	20.54	20.69
GPRS (GMSK, 4Tx-slot)	24.36	24.44	24.27	20.21	20.18	20.50
EDGE (8PSK, 1Tx-slot)	17.36	17.40	17.33	16.39	16.28	16.48
EDGE (8PSK, 2Tx-slot)	17.91	17.90	17.96	16.99	16.87	17.22
EDGE (8PSK, 3Tx-slot)	18.11	18.04	18.15	17.11	17.04	17.35
EDGE (8PSK, 4Tx-slot)	18.05	18.07	17.89	17.05	17.11	17.25

Band	WCDMA Band II			WCDMA Band IV			WCDMA Band V			3GPP MPR (dB)
	Channel	9262	9400	9538	1312	1413	1513	4132	4182	
Frequency (MHz)	1852.4	1880.0	1907.6	1712.4	1732.6	1752.6	826.4	836.4	846.6	
RMC 12.2K	22.81	22.85	23.16	23.04	22.95	22.95	24.43	24.30	24.40	-
HSDPA Subtest-1	21.62	21.63	21.78	22.05	21.91	21.97	23.41	23.35	23.35	0
HSDPA Subtest-2	21.57	21.69	21.71	21.99	21.98	21.93	23.46	23.28	23.29	0
HSDPA Subtest-3	21.04	21.10	21.22	21.54	21.60	22.55	22.93	22.91	22.93	0.5
HSDPA Subtest-4	21.04	21.02	20.27	21.50	21.46	21.50	23.00	22.95	22.82	0.5
DC-HSDPA Subtest-1	21.54	21.51	21.70	22.03	21.90	21.96	23.39	23.28	23.32	0
DC-HSDPA Subtest-2	21.61	21.56	21.63	22.07	21.93	21.86	23.42	23.28	23.31	0
DC-HSDPA Subtest-3	21.03	21.07	21.13	21.55	21.50	21.45	23.00	22.95	22.80	0.5
DC-HSDPA Subtest-4	21.12	21.06	21.10	21.66	21.52	21.46	22.98	22.89	22.87	0.5
HSUPA Subtest-1	19.77	19.91	19.84	20.19	20.19	20.05	21.62	21.54	21.55	0
HSUPA Subtest-2	20.11	20.06	20.21	20.63	20.56	20.71	21.98	22.04	21.99	2
HSUPA Subtest-3	20.43	20.49	20.63	20.94	20.87	20.94	22.38	22.22	22.35	1
HSUPA Subtest-4	19.58	19.61	19.68	20.13	20.05	20.13	21.52	21.45	21.52	2
HSUPA Subtest-5	20.80	20.88	20.86	21.28	21.24	21.18	22.72	22.67	22.59	0



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LTE Band 2															
BW	MCS Index	RB Size	RB Offset	Low	Mid	High	3GPP MPR (dB)	BW	MCS Index	RB Size	RB Offset	Low	Mid	High	3GPP MPR (dB)
		Channel		18700	18900	19100				Channel		18675	18900	19125	
		Frequency(MHz)		1860	1880	1900				Frequency(MHz)		1857.5	1880	1902.5	
20M	QPSK	1	0	22.57	22.69	22.56	0	15M	QPSK	1	0	22.56	22.65	22.48	0
		1	50	22.66	22.81	22.74	0			1	37	22.62	22.78	22.68	0
		1	99	22.56	22.68	22.57	0			1	74	22.54	22.67	22.53	0
		50	0	22.32	22.46	22.46	1			36	0	22.26	22.41	22.45	1
		50	25	22.41	22.58	22.44	1			36	19	22.40	22.56	22.39	1
		50	50	22.29	22.46	22.46	1			36	39	22.21	22.39	22.44	1
	100	0	22.29	22.44	22.33	1	75		0	22.28	22.40	22.30	1		
	16QAM	1	0	22.40	22.58	22.48	1		1	0	22.37	22.57	22.42	1	
		1	50	22.60	22.72	22.69	1		1	37	22.56	22.67	22.67	1	
		1	99	22.44	22.59	22.54	1		1	74	22.38	22.57	22.51	1	
		50	0	22.34	22.37	22.38	2		36	0	22.32	22.29	22.37	2	
		50	25	22.30	22.52	22.42	2		36	19	22.22	22.48	22.37	2	
		50	50	22.38	22.46	22.46	2		36	39	22.35	22.40	22.44	2	
	100	0	22.36	22.41	22.32	2	75		0	22.35	22.36	22.24	2		
	64QAM	1	0	22.28	22.46	22.34	2		1	0	22.22	22.43	22.30	2	
		1	50	22.41	22.51	22.49	2		1	37	22.39	22.44	22.44	2	
		1	99	22.26	22.37	22.32	2		1	74	22.20	22.29	22.30	2	
		50	0	21.29	21.43	21.34	3		36	0	21.28	21.41	21.26	3	
		50	25	21.37	21.45	21.41	3		36	19	21.30	21.37	21.35	3	
		50	50	21.34	21.47	21.42	3		36	39	21.32	21.46	21.38	3	
	100	0	21.35	21.42	21.35	3	75		0	21.33	21.34	21.34	3		
10M	QPSK	Channel		18650	18900	19150	3GPP MPR (dB)	5M	QPSK	Channel		18625	18900	19175	3GPP MPR (dB)
		Frequency(MHz)		1855	1880	1905				Frequency(MHz)		1852.5	1880	1907.5	
		1	0	22.49	22.65	22.51				0	1	0	22.52	22.62	
		1	24	22.64	22.73	22.73	0			1	12	22.64	22.73	22.72	0
		1	49	22.48	22.64	22.52	0			1	24	22.51	22.60	22.56	0
		25	0	22.29	22.40	22.44	1			12	0	22.28	22.41	22.41	1
	25	12	22.39	22.51	22.39	1	12		6	22.33	22.57	22.39	1		
	25	25	22.23	22.38	22.44	1	12		13	22.25	22.41	22.45	1		
	50	0	22.28	22.42	22.25	1	25		0	22.23	22.42	22.28	1		
	16QAM	1	0	22.33	22.50	22.42	1		1	0	22.33	22.53	22.46	1	
		1	24	22.57	22.66	22.67	1		1	12	22.52	22.70	22.64	1	
		1	49	22.42	22.52	22.49	1		1	24	22.42	22.51	22.52	1	
		25	0	22.28	22.29	22.36	2		12	0	22.26	22.31	22.30	2	
		25	12	22.28	22.44	22.41	2		12	6	22.24	22.50	22.36	2	
		25	25	22.30	22.42	22.41	2		12	13	22.31	22.41	22.44	2	
	64QAM	1	0	22.34	22.33	22.31	2		25	0	22.30	22.34	22.27	2	
		1	0	22.20	22.42	22.29	2		1	0	22.21	22.41	22.32	2	
		1	24	22.38	22.45	22.47	2		1	12	22.33	22.49	22.43	2	
		1	49	22.24	22.30	22.27	2		1	24	22.18	22.36	22.30	2	
		25	0	21.23	21.35	21.32	3		12	0	21.25	21.38	21.26	3	
		25	12	21.36	21.43	21.33	3		12	6	21.29	21.44	21.39	3	
25	25	21.29	21.39	21.36	3	12	13	21.30	21.42	21.34	3				
50	0	21.34	21.36	21.33	3	25	0	21.29	21.40	21.32	3				
3M	QPSK	Channel		18615	18900	19185	3GPP MPR (dB)	1.4M	QPSK	Channel		18607	18900	19193	3GPP MPR (dB)
		Frequency(MHz)		1851.5	1880	1908.5				Frequency(MHz)		1850.7	1880	1909.3	
		1	0	22.51	22.67	22.50				0	1	0	22.49	22.65	
		1	7	22.59	22.76	22.72	0			1	2	22.63	22.75	22.72	0
		1	14	22.50	22.61	22.52	0			1	5	22.54	22.61	22.52	0
		8	0	22.25	22.41	22.44	1			3	0	22.56	22.38	22.44	1
	8	3	22.33	22.56	22.38	1	3		1	22.40	22.56	22.36	1		
	8	7	22.21	22.45	22.44	1	3		3	22.24	22.38	22.40	1		
	15	0	22.25	22.39	22.25	1	6		0	22.28	22.38	22.31	1		
	16QAM	1	0	22.32	22.57	22.46	1		1	0	22.35	22.51	22.43	1	
		1	7	22.55	22.67	22.65	1		1	2	22.58	22.64	22.67	1	
		1	14	22.42	22.51	22.53	1		1	5	22.39	22.51	22.53	1	
		8	0	22.26	22.33	22.33	2		3	0	22.30	22.32	22.33	2	
		8	3	22.27	22.46	22.40	2		3	1	22.22	22.51	22.37	2	
		8	7	22.36	22.39	22.41	2		3	3	22.34	22.41	22.45	2	
	15	0	22.30	22.33	22.30	2	6		0	22.30	22.39	22.27	2		
	64QAM	1	0	22.27	22.44	22.26	2		1	0	22.21	22.41	22.32	2	
		1	7	22.36	22.43	22.43	2		1	2	22.33	22.49	22.44	2	
		1	14	22.25	22.31	22.30	2		1	5	22.24	22.29	22.30	2	
		8	0	21.24	21.41	21.27	3		3	0	21.21	21.37	21.26	3	
		8	3	21.35	21.37	21.40	3		3	1	21.31	21.43	21.35	3	
8		7	21.26	21.43	21.37	3	3	3	21.29	21.39	21.41	3			
15	0	21.33	21.34	21.34	3	6	0	21.31	21.37	21.30	3				



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LTE Band 4															
BW	MCS Index	RB Size	RB Offset	Low	Mid	High	3GPP MPR (dB)	BW	MCS Index	RB Size	RB Offset	Low	Mid	High	3GPP MPR (dB)
		Channel		20050	20175	20300				Channel		20025	20175	20325	
		Frequency(MHz)		1720	1732.5	1745				Frequency(MHz)		1717.5	1732.5	1747.5	
20M	QPSK	1	0	23.02	22.94	22.75	0	15M	QPSK	1	0	23.01	22.90	22.67	0
		1	50	23.06	23.01	22.88	0			1	37	23.02	22.98	22.82	0
		1	99	22.89	22.81	22.64	0			1	74	22.87	22.80	22.60	0
		50	0	22.72	22.66	22.60	1			36	0	22.66	22.61	22.59	1
		50	25	22.79	22.76	22.56	1			36	19	22.78	22.74	22.51	1
		50	50	22.66	22.63	22.57	1			36	39	22.58	22.56	22.55	1
		100	0	22.75	22.70	22.53	1			75	0	22.74	22.66	22.50	1
	16QAM	1	0	22.68	22.66	22.50	1		16QAM	1	0	22.65	22.65	22.44	1
		1	50	22.76	22.68	22.59	1			1	37	22.72	22.63	22.57	1
		1	99	22.55	22.50	22.39	1			1	74	22.49	22.48	22.36	1
		50	0	22.31	22.14	22.09	2			36	0	22.29	22.06	22.08	2
		50	25	22.27	22.29	22.13	2			36	19	22.19	22.25	22.08	2
		50	50	22.29	22.17	22.11	2			36	39	22.26	22.11	22.09	2
		100	0	22.30	22.15	22.00	2			75	0	22.29	22.10	21.92	2
	64QAM	1	0	22.40	22.38	22.20	2		64QAM	1	0	22.34	22.35	22.16	2
		1	50	22.48	22.38	22.30	2			1	37	22.46	22.31	22.25	2
		1	99	22.30	22.21	22.10	2			1	74	22.24	22.13	22.08	2
		50	0	21.25	21.19	21.04	3			36	0	21.24	21.17	20.96	3
		50	25	21.31	21.19	21.09	3			36	19	21.24	21.11	21.03	3
		50	50	21.29	21.22	21.11	3			36	39	21.27	21.21	21.07	3
		100	0	21.32	21.19	21.06	3			75	0	21.30	21.11	21.05	3
BW	MCS Index	Channel			3GPP MPR (dB)	BW	MCS Index	Channel			3GPP MPR (dB)				
		Frequency(MHz)	1715	1732.5				1750	Frequency(MHz)	1712.5		1732.5	1752.5		
10M	QPSK	1	0	22.94	22.90	22.70	0	5M	QPSK	1	0	22.97	22.87	22.70	0
		1	24	23.04	22.93	22.87	0			1	12	23.04	22.93	22.86	0
		1	49	22.81	22.77	22.59	0			1	24	22.84	22.73	22.63	0
		25	0	22.69	22.60	22.58	1			12	0	22.68	22.61	22.55	1
		25	12	22.77	22.69	22.51	1			12	6	22.71	22.75	22.51	1
		25	25	22.60	22.55	22.55	1			12	13	22.62	22.58	22.56	1
		50	0	22.74	22.68	22.45	1			25	0	22.69	22.68	22.48	1
	16QAM	1	0	22.61	22.58	22.44	1		16QAM	1	0	22.61	22.61	22.48	1
		1	24	22.73	22.62	22.57	1			1	12	22.68	22.66	22.54	1
		1	49	22.53	22.43	22.34	1			1	24	22.53	22.42	22.37	1
		25	0	22.25	22.06	22.07	2			12	0	22.23	22.08	22.01	2
		25	12	22.25	22.21	22.12	2			12	6	22.21	22.27	22.07	2
		25	25	22.21	22.13	22.06	2			12	13	22.22	22.12	22.09	2
		50	0	22.28	22.07	21.99	2			25	0	22.24	22.08	21.95	2
	64QAM	1	0	22.32	22.34	22.15	2		64QAM	1	0	22.33	22.33	22.18	2
		1	24	22.45	22.32	22.28	2			1	12	22.40	22.36	22.24	2
		1	49	22.28	22.14	22.05	2			1	24	22.22	22.20	22.08	2
		25	0	21.19	21.11	21.02	3			12	0	21.21	21.14	20.96	3
		25	12	21.30	21.17	21.01	3			12	6	21.23	21.18	21.07	3
		25	25	21.24	21.14	21.05	3			12	13	21.25	21.17	21.03	3
		50	0	21.31	21.13	21.04	3			25	0	21.26	21.17	21.03	3
BW	MCS Index	Channel			3GPP MPR (dB)	BW	MCS Index	Channel			3GPP MPR (dB)				
		Frequency(MHz)	19965	20175				20385	Frequency(MHz)	19957		20175	20393		
3M	QPSK	1	0	22.96	22.92	22.69	0	1.4M	QPSK	1	0	22.94	22.90	22.70	0
		1	7	22.99	22.96	22.86	0			1	2	23.03	22.95	22.86	0
		1	14	22.83	22.74	22.59	0			1	5	22.87	22.74	22.59	0
		8	0	22.65	22.61	22.58	1			3	0	22.66	22.58	22.58	1
		8	3	22.71	22.74	22.50	1			3	1	22.78	22.74	22.48	1
		8	7	22.58	22.62	22.55	1			3	3	22.61	22.55	22.51	1
		15	0	22.71	22.65	22.45	1			6	0	22.74	22.64	22.51	1
	16QAM	1	0	22.60	22.65	22.48	1		16QAM	1	0	22.63	22.59	22.45	1
		1	7	22.71	22.63	22.55	1			1	2	22.74	22.60	22.57	1
		1	14	22.53	22.42	22.38	1			1	5	22.50	22.42	22.38	1
		8	0	22.23	22.10	22.04	2			3	0	22.27	22.09	22.04	2
		8	3	22.24	22.23	22.11	2			3	1	22.19	22.28	22.08	2
		8	7	22.27	22.10	22.06	2			3	3	22.25	22.12	22.10	2
		15	0	22.24	22.07	21.98	2			6	0	22.24	22.13	21.95	2
	64QAM	1	0	22.39	22.36	22.12	2		64QAM	1	0	22.33	22.33	22.18	2
		1	7	22.43	22.30	22.24	2			1	2	22.40	22.36	22.25	2
		1	14	22.29	22.15	22.08	2			1	5	22.28	22.13	22.08	2
		8	0	21.20	21.17	20.97	3			3	0	21.17	21.13	20.96	3
		8	3	21.29	21.11	21.08	3			3	1	21.25	21.17	21.03	3
		8	7	21.21	21.18	21.06	3			3	3	21.24	21.14	21.10	3
		15	0	21.30	21.11	21.05	3			6	0	21.28	21.14	21.01	3



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LTE Band 5																			
BW	MCS Index	RB Size	RB Offset	Low	Mid	High	3GPP MPR (dB)	BW	MCS Index	RB Size	RB Offset	Low	Mid	High	3GPP MPR (dB)				
		Channel		20450	20525	20600				Channel		20425	20525	20625					
		Frequency(MHz)		829	836.5	844				Frequency(MHz)		826.5	836.5	846.5					
10M	QPSK	1	0	24.09	24.10	24.12	0	5M	QPSK	1	0	24.04	24.03	24.07	0				
		1	24	24.10	24.14	24.11	0			1	12	24.08	24.06	24.09	0				
		1	49	24.05	24.05	24.12	0			1	24	24.00	23.97	24.11	0				
		25	0	23.04	23.04	23.02	1			12	0	23.00	22.99	22.97	1				
		25	12	23.14	23.24	23.12	1			12	6	23.06	23.23	23.07	1				
		25	25	23.12	23.18	23.15	1			12	13	23.08	23.13	23.14	1				
	16QAM	50	0	23.06	23.17	23.07	1		25	0	23.00	23.15	23.02	1					
		1	0	23.33	23.35	23.41	1		1	0	23.26	23.30	23.39	1					
		1	24	23.31	23.42	23.39	1		1	12	23.23	23.40	23.34	1					
		1	49	23.27	23.31	23.30	1		1	24	23.25	23.23	23.28	1					
		25	0	21.91	21.98	21.92	2		12	0	21.83	21.92	21.84	2					
		25	12	22.03	22.20	22.08	2		12	6	21.97	22.18	22.02	2					
	64QAM	25	25	22.02	22.14	22.12	2		12	13	21.95	22.09	22.10	2					
		50	0	22.05	22.07	22.09	2		25	0	21.99	22.00	22.04	2					
		1	0	22.24	22.28	22.24	2		1	0	22.17	22.23	22.22	2					
		1	24	22.23	22.39	22.27	2		1	12	22.15	22.37	22.21	2					
		1	49	22.16	22.31	22.29	2		1	24	22.08	22.30	22.27	2					
		25	0	20.99	20.99	20.96	3		12	0	20.95	20.94	20.88	3					
	10M	QPSK	25	12	21.09	21.21	21.10		3	12	6	21.01	21.20	21.08	3				
			25	25	20.93	20.97	20.92		3	12	13	20.89	20.92	20.84	3				
			50	0	21.04	21.11	21.10		3	25	0	20.98	21.09	21.07	3				
16QAM			QPSK	Channel		20415	20525	20635	3GPP MPR (dB)	BW	MCS Index	Channel		20407	20525	20643	3GPP MPR (dB)		
				Frequency(MHz)		825.5	836.5	847.5				Frequency(MHz)		824.7	836.5	848.3			
				1	0	24.03	24.08	24.06				0	1.4M	QPSK	1	0		24.01	24.06
	1	7		24.03	24.09	24.09	0	1				2			24.07	24.08		24.09	0
	1	14		23.99	23.98	24.07	0	1				5			24.03	23.98		24.07	0
	8	0		22.97	22.99	23.00	1	3				0			23.78	23.76		23.80	1
8	3	23.06	23.22	23.06	1	3	1	23.93	24.02	23.84	1								
8	7	23.04	23.17	23.13	1	3	3	23.87	23.90	23.89	1								
16QAM	15	0	23.02	23.12	22.99	1	6	0	23.05	23.11	23.05	1							
	1	0	23.25	23.34	23.39	1	1	0	23.28	23.28	23.36	1							
	1	7	23.26	23.37	23.35	1	1	2	23.29	23.34	23.37	1							
	1	14	23.25	23.23	23.29	1	1	5	23.22	23.23	23.29	1							
	8	0	21.83	21.94	21.87	2	3	0	22.87	22.93	22.87	2							
	8	3	22.00	22.14	22.06	2	3	1	22.95	23.19	23.03	2							
64QAM	8	7	22.00	22.07	22.07	2	3	3	22.98	23.09	23.11	2							
	15	0	21.99	21.99	22.07	2	6	0	21.99	22.05	22.04	2							
	1	0	22.23	22.26	22.16	2	1	0	22.17	22.23	22.22	2							
	1	7	22.18	22.31	22.21	2	1	2	22.15	22.37	22.22	2							
	1	14	22.15	22.25	22.27	2	1	5	22.14	22.23	22.27	2							
	8	0	20.94	20.97	20.89	3	3	0	21.91	21.93	21.88	3							
1.4M	QPSK	8	3	21.07	21.13	21.09	3	3	1	22.03	22.19	22.04		3					
		8	7	20.85	20.93	20.87	3	3	3	21.88	21.89	21.91		3					
		15	0	21.02	21.03	21.09	3	6	0	21.00	21.06	21.05		3					



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LTE Band 7																	
BW	MCS Index	RB Size	RB Offset	Low	Mid	High	3GPP MPR (dB)	BW	MCS Index	RB Size	RB Offset	Low	Mid	High	3GPP MPR (dB)		
		Channel		20850	21100	21350				Channel		20825	21100	21375			
		Frequency(MHz)		2510	2535	2560				Frequency(MHz)		2507.5	2535	2562.5			
20M	QPSK	1	0	22.67	22.54	22.66	0	15M	QPSK	1	0	22.66	22.50	22.58	0		
		1	50	22.90	22.79	22.93	0			1	37	22.86	22.76	22.87	0		
		1	99	22.81	22.72	22.85	0			1	74	22.79	22.71	22.81	0		
		50	0	22.40	22.29	22.47	1			36	0	22.34	22.24	22.46	1		
		50	25	22.62	22.51	22.56	1			36	19	22.61	22.49	22.51	1		
		50	50	22.43	22.38	22.52	1			36	39	22.35	22.31	22.50	1		
	16QAM	100	0	22.48	22.39	22.49	1		75	0	22.47	22.35	22.46	1			
		1	0	22.35	22.24	22.38	1		1	0	22.32	22.23	22.32	1			
		1	50	22.58	22.49	22.68	1		1	37	22.54	22.44	22.66	1			
		1	99	22.39	22.40	22.48	1		1	74	22.33	22.38	22.45	1			
		50	0	21.93	21.79	21.98	2		36	0	21.91	21.71	21.97	2			
		50	25	22.00	22.04	22.11	2		36	19	21.92	22.00	22.06	2			
		50	50	21.99	21.93	22.08	2		36	39	21.96	21.87	22.06	2			
		100	0	21.97	21.83	21.96	2		75	0	21.96	21.78	21.88	2			
	64QAM	1	0	22.02	21.94	22.02	2		1	0	21.96	21.91	21.98	2			
		1	50	22.31	22.23	22.33	2		1	37	22.29	22.16	22.28	2			
		1	99	22.14	22.07	22.28	2		1	74	22.08	21.99	22.26	2			
		50	0	21.04	20.91	21.01	3		36	0	21.03	20.89	20.93	3			
		50	25	21.12	21.03	21.11	3		36	19	21.05	20.95	21.05	3			
		50	50	21.04	20.97	21.08	3		36	39	21.02	20.96	21.04	3			
		100	0	21.00	20.84	21.07	3		75	0	20.98	20.76	21.06	3			
		10M	QPSK	Channel		20800	21100		21400	3GPP MPR (dB)	5M <th rowspan="6">QPSK</th> <th colspan="2">Channel</th> <th>20775</th> <th>21100</th> <th>21425</th> <th rowspan="3">3GPP MPR (dB)</th>	QPSK	Channel		20775	21100	21425
	Frequency(MHz)			2505	2535	2565	Frequency(MHz)		2502.5				2535	2567.5			
	1			0	22.59	22.50	22.61		0				1	0	22.62	22.47	22.61
1	24			22.88	22.71	22.92	0	1	12	22.88			22.71	22.91	0		
1	49			22.73	22.68	22.80	0	1	24	22.76			22.64	22.84	0		
25	0			22.37	22.23	22.45	1	12	0	22.36			22.24	22.42	1		
16QAM	25		12	22.60	22.44	22.51	1	12	6	22.54		22.50	22.51	1			
	25		25	22.37	22.30	22.50	1	12	13	22.39		22.33	22.51	1			
	50		0	22.47	22.37	22.41	1	25	0	22.42		22.37	22.44	1			
	1		0	22.28	22.16	22.32	1	1	0	22.28		22.19	22.36	1			
	1		24	22.55	22.43	22.66	1	1	12	22.50		22.47	22.63	1			
	1		49	22.37	22.33	22.43	1	1	24	22.37		22.32	22.46	1			
	25		0	21.87	21.71	21.96	2	12	0	21.85		21.73	21.90	2			
	25		12	21.98	21.96	22.10	2	12	6	21.94		22.02	22.05	2			
64QAM	25		25	21.91	21.89	22.03	2	12	13	21.92		21.88	22.06	2			
	50		0	21.95	21.75	21.95	2	25	0	21.91		21.76	21.91	2			
	1		0	21.94	21.90	21.97	2	1	0	21.95		21.89	22.00	2			
	1		24	22.28	22.17	22.31	2	1	12	22.23		22.21	22.27	2			
	1		49	22.12	22.00	22.23	2	1	24	22.06		22.06	22.26	2			
	25		0	20.98	20.83	20.99	3	12	0	21.00		20.86	20.93	3			
	25		12	21.11	21.01	21.03	3	12	6	21.04		21.02	21.09	3			
	25		25	20.99	20.89	21.02	3	12	13	21.00		20.92	21.00	3			
50	0		20.99	20.78	21.05	3	25	0	20.94	20.82		21.04	3				



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LTE Band 38															
BW	MCS Index	RB Size	RB Offset	Low	Mid	High	3GPP MPR (dB)	BW	MCS Index	RB Size	RB Offset	Low	Mid	High	3GPP MPR (dB)
		Channel		37850	38000	38150				Channel		37825	38000	38175	
		Frequency(MHz)		2580	2595	2610				Frequency(MHz)		2577.5	2595	2612.5	
20M	QPSK	1	0	23.98	23.90	23.82	0	15M	QPSK	1	0	23.97	23.86	23.74	0
		1	50	24.12	24.06	23.97	0			1	37	24.08	24.03	23.91	0
		1	99	23.99	23.95	23.88	0			1	74	23.97	23.94	23.84	0
		50	0	23.09	23.03	23.01	1			36	0	23.03	22.98	23.00	1
		50	25	23.16	23.10	22.95	1			36	19	23.15	23.08	22.90	1
		50	50	23.16	23.16	23.10	1			36	39	23.08	23.09	23.08	1
	16QAM	100	0	23.16	23.12	23.02	1		75	0	23.15	23.08	22.99	1	
		1	0	23.11	23.05	22.99	1		1	0	23.08	23.04	22.93	1	
		1	50	23.24	23.20	23.19	1		1	37	23.20	23.15	23.17	1	
		1	99	23.07	23.13	23.01	1		1	74	23.01	23.11	22.98	1	
		50	0	22.21	22.12	22.11	2		36	0	22.19	22.04	22.10	2	
		50	25	22.20	22.29	22.16	2		36	19	22.12	22.25	22.11	2	
	64QAM	50	50	22.21	22.20	22.15	2		36	39	22.18	22.14	22.13	2	
		100	0	22.21	22.12	22.05	2		75	0	22.20	22.07	21.97	2	
		1	0	21.83	21.80	21.68	2		1	0	21.77	21.77	21.64	2	
		1	50	21.96	21.93	21.83	2		1	37	21.94	21.86	21.78	2	
		1	99	21.81	21.79	21.80	2		1	74	21.75	21.71	21.78	2	
		50	0	21.25	21.17	21.07	3		36	0	21.24	21.15	20.99	3	
	10M Bandwidth Section	QPSK	50	25	21.26	21.22	21.10		3	36	19	21.19	21.14	21.04	3
			50	50	21.22	21.20	21.11		3	36	39	21.20	21.19	21.07	3
			100	0	21.17	21.06	21.09		3	75	0	21.15	20.98	21.08	3
			1	0	23.90	23.86	23.77		0	1	0	23.93	23.83	23.77	0
			1	24	24.10	23.98	23.96		0	1	12	24.10	23.98	23.95	0
			1	49	23.91	23.91	23.83		0	1	24	23.94	23.87	23.87	0
16QAM	QPSK	25	0	23.06	22.97	22.99	1	12	0	23.05	22.98	22.96	1		
		25	12	23.14	23.03	22.90	1	12	6	23.08	23.09	22.90	1		
		25	25	23.10	23.08	23.08	1	12	13	23.12	23.11	23.09	1		
		50	0	23.15	23.10	22.94	1	25	0	23.10	23.10	22.97	1		
		1	0	23.04	22.97	22.93	1	1	0	23.04	23.00	22.97	1		
		1	24	23.21	23.14	23.17	1	1	12	23.16	23.18	23.14	1		
64QAM	16QAM	1	49	23.05	23.06	22.96	1	1	24	23.05	23.05	22.99	1		
		25	0	22.15	22.04	22.09	2	12	0	22.13	22.06	22.03	2		
		25	12	22.18	22.21	22.15	2	12	6	22.14	22.27	22.10	2		
		25	25	22.13	22.16	22.10	2	12	13	22.14	22.15	22.13	2		
		50	0	22.19	22.04	22.04	2	25	0	22.15	22.05	22.00	2		
		1	0	21.75	21.76	21.63	2	1	0	21.76	21.75	21.66	2		
64QAM	64QAM	1	24	21.93	21.87	21.81	2	1	12	21.88	21.91	21.77	2		
		1	49	21.79	21.72	21.75	2	1	24	21.73	21.78	21.78	2		
		25	0	21.19	21.09	21.05	3	12	0	21.21	21.12	20.99	3		
		25	12	21.25	21.20	21.02	3	12	6	21.18	21.21	21.08	3		
		25	25	21.17	21.12	21.05	3	12	13	21.18	21.15	21.03	3		
		50	0	21.16	21.00	21.07	3	25	0	21.11	21.04	21.06	3		