

Appendix 1. Conducted output power of the DUT

(The measurements and the resulted data in this appendix are not covered by JAB Accreditation of PSNET. Maximum Tune-up power are data provided by Max Co., Ltd.)

The output power has been measured using the connector fixed in the DUT and the measurements were made using the communication simulator and in the normal environment. The purpose of the measurements is to confirm that the DUT operates correctly within its specifications and to select RF technology/mode and channels for SAR measurement reduction. (unit: dBm)

The “-” band is not transmitted as a function.

Table 1: Maximum Peak Output Power, LTE Band 2

Band	Bandwidth (MHz)	Modulation	RB Size		RB Offset	Conducted Power(dBm)			
						Max. Tune-up	Channel / Frequency(MHz)		
							18607 / 1850.7	18900 / 1880.0	19193 / 1909.3
2	1.4	QPSK	1RB allocation	1	0	19.00	17.55	17.52	17.59
				1	2	19.00	17.58	17.51	17.61
				1	5	19.00	17.39	17.38	17.43
			50% RB allocation	3	0	19.00	17.37	17.32	17.45
				3	1	19.00	17.43	17.37	17.57
				3	2	19.00	17.52	17.41	17.47
			100% RB allocation	6	0	19.00	16.24	16.20	16.34
		16QAM	1RB allocation	1	0	19.00	16.55	16.46	16.34
				1	2	19.00	16.51	16.62	16.48
				1	5	19.00	16.49	16.46	16.47
			50% RB allocation	3	0	19.00	16.44	16.24	16.43
				3	1	19.00	16.51	16.30	16.36
				3	2	19.00	16.41	16.27	16.35
			100% RB allocation	6	0	19.00	15.32	15.22	15.37
		64QAM	1RB allocation	1	0	19.00	16.55	16.61	16.50
				1	2	19.00	16.60	16.52	16.53
				1	5	19.00	16.51	16.28	16.48
			50% RB allocation	3	0	19.00	16.52	16.44	16.47
				3	1	19.00	16.34	16.35	16.48
				3	2	19.00	16.58	16.49	16.47
			100% RB allocation	6	0	19.00	15.42	15.30	15.38
Band	Bandwidth (MHz)	Modulation	RB Size		RB Offset	Conducted Power(dBm)			
						Max. Tune-up	Channel / Frequency(MHz)		
							18615 / 1851.5	18900 / 1880.0	19185 / 1908.5
2	3	QPSK	1RB allocation	1	0	19.00	17.68	17.71	17.55
				1	8	19.00	17.51	17.52	17.51
				1	14	19.00	17.44	17.45	17.34
			50% RB allocation	8	0	19.00	16.50	16.36	16.33
				8	4	19.00	16.50	16.40	16.36
				8	7	19.00	16.44	16.36	16.45
			100% RB allocation	15	0	19.00	16.47	16.36	16.41
		16QAM	1RB allocation	1	0	19.00	16.51	16.61	16.45
				1	8	19.00	16.34	16.46	16.43
				1	14	19.00	16.22	16.41	16.18
			50% RB allocation	8	0	19.00	15.42	15.41	15.40
				8	4	19.00	15.42	15.39	15.36
				8	7	19.00	15.38	15.39	15.38
			100% RB allocation	15	0	19.00	15.39	15.33	15.35
		64QAM	1RB allocation	1	0	19.00	16.53	16.61	16.68
				1	2	19.00	16.64	16.63	16.62
				1	5	19.00	16.71	16.62	16.46
			50% RB allocation	3	0	19.00	16.44	16.46	16.39
				3	1	19.00	16.55	16.47	16.24
				3	2	19.00	16.36	16.30	16.24
			100% RB allocation	6	0	19.00	15.37	15.32	15.29

Band	Bandwidth (MHz)	Modulation	RB Size		RB Offset	Conducted Power(dBm)			
						Max. Tune-up	Channel / Frequency(MHz)		
							18625 / 1852.5	18900 / 1880.0	19175 / 1907.5
2	5	QPSK	1RB allocation	1	0	19.00	17.54	17.73	17.51
				1	12	19.00	17.76	17.67	17.82
				1	24	19.00	17.27	17.41	17.31
			50% RB allocation	12	0	19.00	16.43	16.33	16.44
				12	7	19.00	16.43	16.36	16.36
				12	13	19.00	16.30	16.30	16.35
			100% RB allocation	25	0	19.00	16.45	16.31	16.39
		16QAM	1RB allocation	1	0	19.00	16.32	16.54	16.40
				1	12	19.00	16.13	16.54	16.36
				1	24	19.00	16.03	16.35	16.29
			50% RB allocation	12	0	19.00	16.28	16.33	16.43
				12	7	19.00	16.43	16.32	16.31
				12	13	19.00	16.31	16.25	16.35
			100% RB allocation	25	0	19.00	15.33	15.30	15.38
		64QAM	1RB allocation	1	0	19.00	16.15	16.69	16.37
				1	12	19.00	16.46	16.58	16.45
				1	24	19.00	16.04	16.29	16.14
			50% RB allocation	12	0	19.00	15.44	15.28	15.34
				12	7	19.00	15.46	15.41	15.40
				12	13	19.00	15.35	15.34	15.21
			100% RB allocation	25	0	19.00	-	-	-
Band	Bandwidth (MHz)	Modulation	RB Size		RB Offset	Conducted Power(dBm)			
						Max. Tune-up	Channel / Frequency(MHz)		
							18650 / 1855.0	18900 / 1880.0	19150 / 1905.0
2	10	QPSK	1RB allocation	1	0	19.00	17.60	17.77	17.64
				1	24	19.00	17.45	17.52	17.62
				1	49	19.00	17.37	17.41	17.41
			50% RB allocation	25	0	19.00	16.32	16.20	16.43
				25	12	19.00	16.26	16.23	16.39
				25	24	19.00	16.22	16.23	16.37
			100% RB allocation	50	0	19.00	16.29	16.23	16.40
		16QAM	1RB allocation	1	0	19.00	16.24	16.46	16.39
				1	24	19.00	16.15	16.39	16.48
				1	49	19.00	16.07	16.28	16.29
			50% RB allocation	25	0	19.00	16.33	16.33	16.33
				25	12	19.00	16.34	16.31	16.39
				25	24	19.00	16.40	16.27	16.39
			100% RB allocation	50	0	19.00	16.35	15.31	15.41
		64QAM	1RB allocation	1	0	19.00	16.58	16.68	16.71
				1	24	19.00	16.44	16.68	16.66
				1	49	19.00	16.38	16.23	16.11
			50% RB allocation	25	0	19.00	-	-	-
				25	12	19.00	-	-	-
				25	24	19.00	-	-	-
			100% RB allocation	50	0	19.00	-	-	-

Band	Bandwidth (MHz)	Modulation	RB Size		RB Offset	Conducted Power(dBm)			
						Max. Tune-up	Channel / Frequency(MHz)		
							18675 / 1857.5	18900 / 1880.0	19125 / 1902.5
2	15	QPSK	1RB allocation	1	0	19.00	17.57	17.65	17.47
				1	36	19.00	17.41	17.28	17.55
				1	74	19.00	17.20	17.24	17.34
			50% RB allocation	36	0	19.00	16.55	16.60	16.60
				36	18	19.00	16.35	16.34	16.52
				36	37	19.00	16.36	16.20	16.32
			100% RB allocation	75	0	19.00	-	-	-
		16QAM	1RB allocation	1	0	19.00	16.66	16.45	16.61
				1	36	19.00	16.46	16.58	16.59
				1	74	19.00	16.56	16.57	16.41
			50% RB allocation	36	0	19.00	-	-	-
				36	18	19.00	-	-	-
				36	37	19.00	-	-	-
			100% RB allocation	75	0	19.00	-	-	-
		64QAM	1RB allocation	1	0	19.00	16.64	16.71	16.45
				1	36	19.00	16.20	16.30	16.44
				1	74	19.00	16.03	16.03	15.89
			50% RB allocation	36	0	19.00	-	-	-
				36	18	19.00	-	-	-
				36	37	19.00	-	-	-
			100% RB allocation	75	0	19.00	-	-	-
Band	Bandwidth (MHz)	Modulation	RB Size		RB Offset	Conducted Power(dBm)			
						Max. Tune-up	Channel / Frequency(MHz)		
							18700 / 1860.0	18900 / 1880.0	19100 / 1900.0
2	20	QPSK	1RB allocation	1	0	19.00	17.43	17.58	17.55
				1	49	19.00	17.46	17.36	17.62
				1	99	19.00	17.18	17.00	17.25
			50% RB allocation	50	0	19.00	16.19	16.34	16.29
				50	24	19.00	16.25	16.10	16.22
				50	49	19.00	16.17	16.12	16.30
			100% RB allocation	100	0	19.00	-	-	-
		16QAM	1RB allocation	1	0	19.00	16.47	16.53	16.45
				1	49	19.00	16.30	16.13	16.30
				1	99	19.00	15.98	15.95	16.00
			50% RB allocation	50	0	19.00	-	-	-
				50	24	19.00	-	-	-
				50	49	19.00	-	-	-
			100% RB allocation	100	0	19.00	-	-	-
		64QAM	1RB allocation	1	0	19.00	16.46	16.66	16.56
				1	49	19.00	16.50	16.60	16.55
				1	99	19.00	16.25	16.12	16.13
			50% RB allocation	50	0	19.00	-	-	-
				50	24	19.00	-	-	-
				50	49	19.00	-	-	-
			100% RB allocation	100	0	19.00	-	-	-

Band	Channel		Frequency (MHz)	BW (MHz)	Modulation	RB Size	RB Offset
2	Low	18625	1852.5	5	QPSK	1	12
	Mid	18900	1880.0	10	QPSK	1	0
	High	19175	1907.5	5	QPSK	1	12

Table 2: Maximum Peak Output Power, LTE Band 4

Band	Bandwidth (MHz)	Modulation	RB Size		RB Offset	Conducted Power(dBm)			
						Max. Tune-up	Channel / Frequency(MHz)		
							19957 / 1710.7	20175 / 1732.5	20393 / 1754.3
4	1.4	QPSK	1RB allocation	1	0	18.00	17.24	17.40	17.19
				1	2	18.00	17.19	17.37	17.24
				1	5	18.00	17.00	17.09	17.09
			50% RB allocation	3	0	18.00	16.92	17.13	17.07
				3	1	18.00	17.09	17.12	17.02
				3	2	18.00	17.05	17.15	17.02
			100% RB allocation	6	0	18.00	15.98	16.05	15.99
		16QAM	1RB allocation	1	0	18.00	15.97	15.94	15.91
				1	2	18.00	16.09	16.21	16.11
				1	5	18.00	15.89	16.05	16.12
			50% RB allocation	3	0	18.00	15.99	16.11	15.96
				3	1	18.00	16.02	16.15	15.94
				3	2	18.00	15.92	16.11	16.07
			100% RB allocation	6	0	18.00	14.85	15.01	14.93
		64QAM	1RB allocation	1	0	18.00	16.12	16.58	16.20
				1	2	18.00	16.19	16.38	16.18
				1	5	18.00	15.97	15.89	16.06
			50% RB allocation	3	0	18.00	16.02	16.04	16.04
				3	1	18.00	16.02	16.21	16.12
				3	2	18.00	16.24	16.20	16.18
			100% RB allocation	6	0	18.00	14.88	15.10	15.04
Band	Bandwidth (MHz)	Modulation	RB Size		RB Offset	Conducted Power(dBm)			
						Max. Tune-up	Channel / Frequency(MHz)		
							19965 / 1711.5	20175 / 1732.5	20385 / 1753.5
4	3	QPSK	1RB allocation	1	0	18.00	17.50	17.60	17.01
				1	8	18.00	17.29	17.36	17.25
				1	14	18.00	17.19	17.12	16.98
			50% RB allocation	8	0	18.00	16.21	16.19	15.92
				8	4	18.00	16.13	16.22	15.87
				8	7	18.00	16.13	16.14	15.94
			100% RB allocation	15	0	18.00	16.14	16.20	15.81
		16QAM	1RB allocation	1	0	18.00	16.03	16.33	15.69
				1	8	18.00	16.07	16.02	15.97
				1	14	18.00	15.90	16.17	16.02
			50% RB allocation	8	0	18.00	15.24	15.31	14.81
				8	4	18.00	15.08	15.15	14.80
				8	7	18.00	15.20	15.23	14.89
			100% RB allocation	15	0	18.00	15.13	15.05	14.71
		64QAM	1RB allocation	1	0	18.00	16.49	16.49	15.91
				1	8	18.00	16.34	16.42	16.16
				1	14	18.00	16.24	16.17	16.06
			50% RB allocation	8	0	18.00	15.18	15.25	14.93
				8	4	18.00	15.30	15.24	14.87
				8	7	18.00	15.33	15.14	14.95
			100% RB allocation	15	0	18.00	-	-	-

Band	Bandwidth (MHz)	Modulation	RB Size		RB Offset	Conducted Power(dBm)			
						Max. Tune-up	Channel / Frequency(MHz)		
							19975 / 1712.5	20175 / 1732.5	20375 / 1752.5
4	5	QPSK	1RB allocation	1	0	18.00	17.23	17.46	17.10
				1	12	18.00	17.49	17.61	17.47
				1	24	18.00	16.92	16.99	17.01
			50% RB allocation	12	0	18.00	16.11	16.12	15.87
				12	7	18.00	16.11	16.15	15.86
				12	13	18.00	16.12	16.08	15.95
			100% RB allocation	25	0	18.00	16.12	16.16	15.85
		16QAM	1RB allocation	1	0	18.00	16.15	16.31	16.13
				1	12	18.00	16.12	16.13	16.20
				1	24	18.00	15.53	15.85	15.75
			50% RB allocation	12	0	18.00	15.09	15.11	14.81
				12	7	18.00	15.01	15.10	14.90
				12	13	18.00	15.02	15.06	14.83
			100% RB allocation	25	0	18.00	15.07	15.05	14.80
		64QAM	1RB allocation	1	0	18.00	16.62	16.53	16.29
				1	12	18.00	16.27	16.52	16.22
				1	24	18.00	15.77	15.95	15.99
			50% RB allocation	12	0	18.00	-	-	15.11
				12	7	18.00	-	-	15.32
				12	13	18.00	-	-	15.38
			100% RB allocation	25	0	18.00	-	-	-
Band	Bandwidth (MHz)	Modulation	RB Size		RB Offset	Conducted Power(dBm)			
						Max. Tune-up	Channel / Frequency(MHz)		
							20000 / 1715.0	20175 / 1732.5	20350 / 1750.0
4	10	QPSK	1RB allocation	1	0	18.00	17.41	17.40	17.33
				1	24	18.00	17.23	17.52	17.40
				1	49	18.00	16.98	17.14	17.21
			50% RB allocation	25	0	18.00	16.07	16.11	16.05
				25	12	18.00	16.10	16.16	16.02
				25	24	18.00	16.02	16.15	15.96
			100% RB allocation	50	0	18.00	15.96	16.15	15.94
		16QAM	1RB allocation	1	0	18.00	16.10	16.04	16.01
				1	24	18.00	16.08	16.07	15.95
				1	49	18.00	15.67	15.75	15.92
			50% RB allocation	25	0	18.00	15.01	15.10	14.82
				25	12	18.00	15.09	15.05	14.87
				25	24	18.00	14.92	15.08	14.82
			100% RB allocation	50	0	18.00	-	-	-
		64QAM	1RB allocation	1	0	18.00	16.11	16.13	15.93
				1	24	18.00	16.24	16.35	16.10
				1	49	18.00	15.77	15.99	15.84
			50% RB allocation	25	0	18.00	-	-	-
				25	12	18.00	-	-	-
				25	24	18.00	-	-	-
			100% RB allocation	50	0	18.00	-	-	-

Band	Bandwidth (MHz)	Modulation	RB Size		RB Offset	Conducted Power(dBm)			
						Max. Tune-up	Channel / Frequency(MHz)		
							20025 / 1717.5	20175 / 1732.5	20325 / 1747.5
4	15	QPSK	1RB allocation	1	0	18.00	17.36	17.46	17.31
				1	36	18.00	17.10	17.19	17.12
				1	74	18.00	17.10	16.94	17.01
			50% RB allocation	36	0	18.00	16.10	16.12	15.98
				36	18	18.00	16.04	16.12	15.96
				36	37	18.00	16.01	16.20	15.86
			100% RB allocation	75	0	18.00	-	-	-
		16QAM	1RB allocation	1	0	18.00	16.16	16.27	16.42
				1	36	18.00	15.97	16.03	15.79
				1	74	18.00	16.00	15.87	15.87
			50% RB allocation	36	0	18.00	-	-	-
				36	18	18.00	-	-	-
				36	37	18.00	-	-	-
			100% RB allocation	75	0	18.00	-	-	-
		64QAM	1RB allocation	1	0	18.00	16.60	16.16	16.56
				1	36	18.00	16.07	16.21	15.93
				1	74	18.00	15.91	16.10	16.10
			50% RB allocation	36	0	18.00	-	-	-
				36	18	18.00	-	-	-
				36	37	18.00	-	-	-
			100% RB allocation	75	0	18.00	-	-	-
Band	Bandwidth (MHz)	Modulation	RB Size		RB Offset	Conducted Power(dBm)			
						Max. Tune-up	Channel / Frequency(MHz)		
							20050 / 1720.0	20175 / 1732.5	20300 / 1745.0
4	20	QPSK	1RB allocation	1	0	18.00	17.31	17.53	17.77
				1	49	18.00	17.14	17.34	17.07
				1	99	18.00	16.93	16.87	17.01
			50% RB allocation	50	0	18.00	16.09	16.11	16.24
				50	24	18.00	16.05	16.14	15.89
				50	49	18.00	16.03	16.14	15.87
			100% RB allocation	100	0	18.00	-	-	-
		16QAM	1RB allocation	1	0	18.00	16.11	16.49	16.26
				1	49	18.00	15.90	16.34	15.89
				1	99	18.00	16.04	15.91	15.83
			50% RB allocation	50	0	18.00	-	-	-
				50	24	18.00	-	-	-
				50	49	18.00	-	-	-
			100% RB allocation	100	0	18.00	-	-	-
		64QAM	1RB allocation	1	0	18.00	16.13	16.49	16.54
				1	49	18.00	16.06	16.29	16.02
				1	99	18.00	15.72	15.62	15.92
			50% RB allocation	50	0	18.00	-	-	-
				50	24	18.00	-	-	-
				50	49	18.00	-	-	-
			100% RB allocation	100	0	18.00	-	-	-

Standard	Band	Channel		Frequency (MHz)	BW (MHz)	Modulation	RB Size	RB Offset
FCC	4	Low	19965	1711.5	3	QPSK	1	0
		Mid	20175	1732.5	5	QPSK	1	12
		High	20300	1745.0	20	QPSK	1	0

Table 3: Maximum Peak Output Power, LTE Band 12

Band	Bandwidth (MHz)	Modulation	RB Size		RB Offset	Conducted Power(dBm)			
						Max. Tune-up	Channel / Frequency(MHz)		
							23017 / 699.7	23095 / 707.5	23173 / 715.3
12	1.4	QPSK	1RB allocation	1	0	23.00	22.82	22.75	22.74
				1	2	23.00	22.91	22.98	22.87
				1	5	23.00	22.76	22.75	22.85
			50% RB allocation	3	0	23.00	22.76	22.84	22.66
				3	1	23.00	22.85	22.93	22.73
				3	2	23.00	22.78	22.85	22.76
			100% RB allocation	6	0	23.00	21.72	21.89	21.82
		16QAM	1RB allocation	1	0	23.00	21.63	21.67	21.73
				1	2	23.00	21.78	21.89	22.03
				1	5	23.00	21.66	21.68	21.66
			50% RB allocation	3	0	23.00	21.87	21.92	21.69
				3	1	23.00	21.89	21.90	21.89
				3	2	23.00	21.85	21.80	21.78
			100% RB allocation	6	0	23.00	20.77	20.81	20.80
		64QAM	1RB allocation	1	0	23.00	21.69	21.69	21.73
				1	2	23.00	21.92	21.98	21.95
				1	5	23.00	21.77	21.63	21.71
			50% RB allocation	3	0	23.00	21.90	21.90	21.77
				3	1	23.00	21.85	21.90	21.84
				3	2	23.00	21.81	22.02	21.80
			100% RB allocation	6	0	23.00	20.83	20.94	20.82
Band	Bandwidth (MHz)	Modulation	RB Size		RB Offset	Conducted Power(dBm)			
						Max. Tune-up	Channel / Frequency(MHz)		
							23025 / 700.5	23095 / 707.5	23165 / 714.5
12	3	QPSK	1RB allocation	1	0	23.00	22.86	22.86	22.76
				1	8	23.00	22.89	22.99	22.84
				1	14	23.00	22.62	22.82	22.87
			50% RB allocation	8	0	23.00	21.97	22.00	21.78
				8	4	23.00	21.83	22.09	21.89
				8	7	23.00	21.89	22.09	21.92
			100% RB allocation	15	0	23.00	21.91	22.00	21.90
		16QAM	1RB allocation	1	0	23.00	21.91	21.78	21.77
				1	8	23.00	21.75	21.81	21.86
				1	14	23.00	21.62	21.71	21.72
			50% RB allocation	8	0	23.00	20.93	21.08	20.73
				8	4	23.00	20.89	21.03	20.88
				8	7	23.00	20.78	21.06	20.98
			100% RB allocation	15	0	23.00	20.86	21.04	20.88
		64QAM	1RB allocation	1	0	23.00	21.64	21.90	21.67
				1	8	23.00	21.86	21.90	21.77
				1	14	23.00	21.54	21.84	21.78
			50% RB allocation	8	0	23.00	20.94	20.95	20.72
				8	4	23.00	20.90	21.07	20.86
				8	7	23.00	20.87	20.98	21.01
			100% RB allocation	15	0	23.00	-	-	-

Band	Bandwidth (MHz)	Modulation	RB Size		RB Offset	Conducted Power(dBm)			
						Max. Tune-up	Channel / Frequency(MHz)		
							23035 / 701.5	23095 / 707.5	23155 / 713.5
12	5	QPSK	1RB allocation	1	0	23.00	22.91	22.90	22.87
				1	12	23.00	22.94	22.95	22.92
				1	24	23.00	22.93	22.93	22.88
			50% RB allocation	12	0	23.00	22.13	22.22	22.12
				12	7	23.00	22.04	22.34	22.22
				12	13	23.00	22.14	22.26	22.28
			100% RB allocation	25	0	23.00	22.08	22.24	22.15
		16QAM	1RB allocation	1	0	23.00	21.88	21.89	21.92
				1	12	23.00	22.05	22.54	22.09
				1	24	23.00	22.16	21.93	21.88
			50% RB allocation	12	0	23.00	21.18	21.18	21.15
				12	7	23.00	21.19	21.50	21.16
				12	13	23.00	21.02	21.29	21.03
			100% RB allocation	25	0	23.00	21.15	21.31	21.14
		64QAM	1RB allocation	1	0	23.00	21.91	22.00	21.84
				1	12	23.00	22.28	22.53	22.08
				1	24	23.00	21.75	21.95	22.04
			50% RB allocation	12	0	23.00	21.15	21.21	21.14
				12	7	23.00	21.12	21.33	21.07
				12	13	23.00	21.10	21.23	21.15
			100% RB allocation	25	0	23.00	-	-	-
Band	Bandwidth (MHz)	Modulation	RB Size		RB Offset	Conducted Power(dBm)			
						Max. Tune-up	Channel / Frequency(MHz)		
								23095 / 707.5	
12	10	QPSK	1RB allocation	1	0	23.00		22.78	
				1	24	23.00		22.91	
				1	49	23.00		22.72	
			50% RB allocation	25	0	23.00		21.91	
				25	12	23.00		21.95	
				25	24	23.00		21.93	
			100% RB allocation	50	0	23.00		21.87	
		16QAM	1RB allocation	1	0	23.00		21.59	
				1	24	23.00		21.95	
				1	49	23.00		21.62	
			50% RB allocation	25	0	23.00		20.81	
				25	12	23.00		20.95	
				25	24	23.00		20.84	
			100% RB allocation	50	0	23.00		-	
		64QAM	1RB allocation	1	0	23.00		21.54	
				1	24	23.00		22.01	
				1	49	23.00		21.41	
			50% RB allocation	25	0	23.00		-	
				25	12	23.00		-	
				25	24	23.00		-	
			100% RB allocation	50	0	23.00		-	

Standard	Band	Channel		Frequency (MHz)	BW (MHz)	Modulation	RB Size	RB Offset
FCC	12	Low	23035	701.5	5	QPSK	1	12
		Mid	23095	707.5	3	QPSK	1	8
		High	23155	713.5	5	QPSK	1	12