Appendix E. Conducted Power Measurement Result

1. Conducted power measurement results of UMTS B2

Band	UMTS B2 Average Conducted Power(dBm)			
Tx Channel	Max.	9262	9400	9538
Frequency(MHz)	Tune-up	1852.4	1880	1907.6
AMR Voice	23.00	22.65	22.81	22.79
RMC 12.2K	23.00	**22.65**	**22.81**	**22.79**
HSDPA Subtest-1	22.00	21.71	21.68	21.86
HSDPA Subtest-2	22.00	21.72	21.71	21.95
HSDPA Subtest-3	21.50	21.16	21.30	21.41
HSDPA Subtest-4	21.50	21.25	21.26	21.32
HSUPA Subtest-1	22.00	21.43	21.68	21.41
HSUPA Subtest-2	21.50	20.63	20.34	20.90
HSUPA Subtest-3	20.50	19.79	20.05	20.22
HSUPA Subtest-4	21.50	21.05	20.77	20.91
HSUPA Subtest-5	22.00	21.68	21.76	21.97
DC-HSDPA Subtest-1	22.00	21.71	21.68	21.86
DC-HSDPA Subtest-2	22.00	21.72	21.71	21.95
DC-HSDPA Subtest-3	21.50	21.16	21.30	21.41
DC-HSDPA Subtest-4	21.50	21.25	21.26	21.32

Note:
1) The conducted power of UMTS B2 is measured with RMS detector.
2) Note: Per KDB941225 D01, When the maximum output power and tune-up tolerance specified for production units in a secondary mode is ≤ ¼ dB higher than the primary mode or when the highest reported SAR of the primary mode is scaled by the ratio of specified maximum output power and tune-up tolerance of secondary to primary mode and the adjusted SAR is ≤ 1.2 W/kg, SAR measurement is not required for the secondary mode.
3) The tested channel results are marks in bold.

2. Conducted power measurement results of UMTS B5

Band	UMTS B5 Average Conducted Power(dBm)			
Tx Channel	Max.	4132	4182	4233
Frequency(MHz)	Tune-up	826.4	836.4	846.6
AMR Voice	23.00	22.83	22.78	22.88
RMC 12.2K	23.00	**22.83**	**22.78**	**22.88**
HSDPA Subtest-1	23.00	22.81	22.10	22.20
HSDPA Subtest-2	22.00	21.86	21.82	21.76
HSDPA Subtest-3	21.50	21.29	21.15	21.20
HSDPA Subtest-4	21.50	21.30	21.19	21.20
HSUPA Subtest-1	22.00	21.29	21.62	21.27
HSUPA Subtest-2	21.00	20.83	20.81	20.28
HSUPA Subtest-3	21.00	20.11	20.07	20.79
HSUPA Subtest-4	21.50	21.29	20.85	20.92
HSUPA Subtest-5	22.00	21.84	21.82	21.81
DC-HSDPA Subtest-1	23.00	22.85	22.10	22.20
DC-HSDPA Subtest-2	23.00	22.82	21.82	21.76
DC-HSDPA Subtest-3	21.50	21.29	21.15	21.20
DC-HSDPA Subtest-4	21.50	21.30	21.19	21.20

Note:
1) The conducted power of UMTS B5 is measured with RMS detector.
2) Note: Per KDB941225 D01, When the maximum output power and tune-up tolerance specified for production units in a secondary mode is ≤ ¼ dB higher than the primary mode or when the highest reported SAR of the primary mode is scaled by the ratio of specified maximum output power and tune-up tolerance of secondary to primary mode and the adjusted SAR is ≤ 1.2 W/kg, SAR measurement is not required for the secondary mode.
3) The tested channel results are marks in bold.

3. Conducted power measurement results of LTE B2

LTE B2/BW=1.4M		Average Conducted Power(dBm)				LTE B2/BW=3M		Average Conducted Power(dBm)			
Modula-tion	RB Size/ Offset	Max. Tune-up	Channel/Frequency(MHz)			Modula-tion	RB Size/ Offset	Max. Tune-up	Channel/Frequency(MHz)		
			18607/ 1850.7	18900/ 1880	19193/ 1909.3				18615/ 1851.5	18900/ 1880	19185/ 1908.5
QPSK	1/0	23.00	22.32	22.69	22.66	QPSK	1/0	23.00	22.38	22.71	22.83
	1/2	23.00	22.20	22.73	22.77		1/7	23.00	22.64	22.81	22.89
	1/5	23.00	22.31	22.68	22.41		1/14	23.00	22.67	22.77	22.75
	3/0	23.00	22.31	22.54	22.55		8/0	22.00	21.58	21.60	21.75
	3/1	23.00	22.34	22.67	22.64		8/3	22.00	21.36	21.65	21.70
	3/3	23.00	22.28	22.41	22.78		8/7	22.00	21.28	21.61	21.67
	6/0	22.00	21.37	21.68	21.72		15/0	22.00	21.40	21.61	21.64
16QAM	1/0	22.00	21.16	21.99	21.27	16QAM	1/0	22.00	21.55	21.90	21.59
	1/2	22.00	21.45	21.95	21.22		1/7	22.00	21.70	21.96	21.49
	1/5	22.00	21.42	21.97	21.29		1/14	22.00	21.65	21.35	21.43
	3/0	22.00	21.81	21.60	21.17		8/0	21.00	20.77	20.54	20.55
	3/1	22.00	21.86	21.54	21.16		8/3	21.00	20.30	20.71	20.51
	3/3	22.00	21.79	21.89	21.01		8/7	21.00	20.26	20.55	20.45
	6/0	21.00	20.47	20.74	20.31		15/0	21.00	20.28	20.53	20.58
LTE B2/BW=5M		Average Conducted Power(dBm)				LTE B2/BW=10M		Average Conducted Power(dBm)			
Modula-tion	RB Size/ Offset	Max. Tune-up	Channel/Frequency(MHz)			Modula-tion	RB Size/ Offset	Max. Tune-up	Channel/Frequency(MHz)		
			18625/ 1852.5	18900/ 1880	19175/ 1907.5				18650/ 1855	18900/ 1880	19150/ 1905
QPSK	1/0	23.00	22.33	22.41	22.49	QPSK	1/0	23.00	22.34	22.42	22.71
	1/12	23.00	22.64	22.50	22.47		1/24	23.00	22.80	22.84	22.62
	1/24	23.00	22.54	22.44	22.70		1/49	23.00	22.63	22.60	22.65
	12/0	22.00	21.55	21.62	21.62		25/0	22.00	21.45	21.56	21.66
	12/6	22.00	21.57	21.69	21.67		25/12	22.00	21.39	21.65	21.72
	12/13	22.00	21.51	21.69	21.52		25/25	22.00	21.32	21.61	21.57
	25/0	22.00	21.43	21.63	21.65		50/0	22.00	21.34	21.56	21.60
16QAM	1/0	22.00	21.10	21.63	21.55	16QAM	1/0	22.00	21.49	21.70	21.12
	1/12	22.00	21.24	21.75	21.57		1/24	22.00	21.48	21.95	21.58
	1/24	22.00	20.80	21.66	21.05		1/49	22.00	21.56	21.70	21.06
	12/0	21.00	20.41	20.36	20.57		25/0	21.00	20.52	20.56	20.61
	12/6	21.00	20.44	20.44	20.61		25/12	21.00	20.43	20.65	20.65
	12/13	21.00	20.54	20.42	20.50		25/25	21.00	20.40	20.59	20.62
	25/0	21.00	20.49	20.63	20.55		50/0	21.00	20.38	20.54	20.52

LTE B2/BW=15M		Average Conducted Power(dBm)				LTE B2/BW=20M		Average Conducted Power(dBm)			
Modula -tion	RB Size/ Offset	Max. Tune-up	Channel/Frequency(MHz)			Modula -tion	RB Size/ Offset	Max. Tune-up	Channel/Frequency(MHz)		
			18675/ 1857.5	18900/ 1880	19125/ 1902.5				18700/ 1860	18900/ 1880	19100/ 1900
QPSK	1/0	23.00	22.52	22.58	22.59	QPSK	1/0	23.00	22.34	22.31	22.49
	1/37	23.00	22.61	22.83	22.61		1/50	23.00	**22.45**	**22.38**	**22.94**
	1/74	23.00	22.52	22.32	22.81		1/99	23.00	22.30	22.29	22.73
	36/0	22.50	21.44	22.32	21.66		50/0	22.00	**21.40**	**21.50**	**21.72**
	36/19	22.00	21.40	21.70	21.64		50/25	22.00	21.30	21.44	21.60
	36/39	22.00	21.23	21.54	21.67		50/50	22.00	21.38	21.48	21.61
	75/0	22.00	21.43	21.52	21.64		100/0	22.00	21.44	21.40	**21.58**
16QAM	1/0	22.00	21.42	20.84	21.96	16QAM	1/0	22.00	21.49	21.38	21.05
	1/37	22.50	22.05	21.81	22.42		1/50	22.00	21.43	20.17	21.94
	1/74	22.50	21.77	21.96	22.18		1/99	22.00	20.94	21.38	21.58
	36/0	21.00	20.47	20.96	20.54		50/0	21.00	20.48	20.50	20.62
	36/19	21.00	20.44	20.76	20.57		50/25	21.00	20.46	20.60	20.50
	36/39	21.00	20.28	20.48	20.43		50/50	21.00	20.17	20.48	20.40
	75/0	21.00	20.35	20.45	20.39		100/0	21.00	20.43	20.41	20.52

Note:
1) The tested channel results are marks in bold.

4. Conducted power measurement results of LTE B4

LTE B4/BW=1.4M		Average Conducted Power(dBm)				LTE B4/BW=3M		Average Conducted Power(dBm)			
Modula-tion	RB Size/ Offset	Max. Tune-up	Channel/Frequency(MHz)			Modula-tion	RB Size/ Offset	Max. Tune-up	Channel/Frequency(MHz)		
			19957/ 1710.7	20175/ 1732.5	20393/ 1754.3				19965/ 1711.5	20175/ 1732.5	20385/ 1753.5
QPSK	1/0	23.00	22.24	21.84	22.02	QPSK	1/0	23.00	22.15	22.24	22.02
	1/2	23.00	22.27	21.94	21.80		1/7	23.00	22.33	22.28	21.86
	1/5	23.00	22.23	22.00	21.72		1/14	23.00	22.20	22.19	21.65
	3/0	23.00	22.10	22.01	21.91		8/0	22.00	21.29	21.08	20.89
	3/1	23.00	22.15	22.04	21.96		8/3	22.00	21.33	21.02	20.91
	3/3	23.00	22.23	21.97	21.91		8/7	22.00	21.30	21.09	20.92
	6/0	22.00	21.16	20.91	20.86		15/0	22.00	21.23	21.07	20.89
16QAM	1/0	22.00	21.07	20.72	21.07	16QAM	1/0	22.00	21.28	20.57	20.99
	1/2	22.00	21.26	20.82	21.07		1/7	22.00	21.49	20.89	21.03
	1/5	22.00	21.27	20.72	20.91		1/14	22.00	21.39	20.54	20.40
	3/0	22.00	21.43	20.61	20.85		8/0	21.00	20.45	19.90	19.73
	3/1	22.00	21.48	20.63	20.77		8/3	21.00	20.49	20.02	19.75
	3/3	22.00	21.13	20.56	20.68		8/7	21.00	20.46	19.98	19.68
	6/0	21.00	20.13	19.76	19.72		15/0	21.00	20.20	19.97	19.73
LTE B4/BW=5M		Average Conducted Power(dBm)				LTE B4/BW=10M		Average Conducted Power(dBm)			
Modula-tion	RB Size/ Offset	Max. Tune-up	Channel/Frequency(MHz)			Modula-tion	RB Size/ Offset	Max. Tune-up	Channel/Frequency(MHz)		
			19975/ 1712.5	20175/ 1732.5	20375/ 1752.5				20000/ 1715	20175/ 1732.5	20350/ 1750
QPSK	1/0	23.00	22.12	21.97	22.17	QPSK	1/0	23.00	22.27	22.13	22.25
	1/12	23.00	22.28	22.07	22.12		1/24	23.00	22.28	22.15	22.10
	1/24	23.00	22.29	21.92	21.98		1/49	23.00	22.29	22.11	22.15
	12/0	22.00	21.28	20.98	21.19		25/0	22.00	21.21	21.16	21.05
	12/6	22.00	21.34	21.03	21.12		25/12	22.00	21.28	21.05	21.07
	12/13	22.00	21.22	21.01	21.06		25/25	22.00	21.17	20.91	20.96
	25/0	22.00	21.21	21.06	21.06		50/0	22.00	21.28	20.93	21.07
16QAM	1/0	22.00	20.70	21.13	21.46	16QAM	1/0	22.00	21.41	20.73	21.18
	1/12	22.00	20.57	21.16	21.49		1/24	22.00	21.62	21.49	21.04
	1/24	22.00	20.68	21.14	21.00		1/49	22.00	21.32	21.24	21.07
	12/0	21.00	20.11	19.98	19.93		25/0	21.00	20.31	20.18	20.24
	12/6	21.00	20.17	19.94	19.92		25/12	21.00	20.33	20.14	20.25
	12/13	21.00	20.15	19.92	19.86		25/25	21.00	20.15	20.02	20.08
	25/0	21.00	20.08	19.91	19.97		50/0	21.00	20.15	19.89	20.10

LTE B4/BW=15M		Average Conducted Power(dBm)				LTE B4/BW=20M		Average Conducted Power(dBm)			
Modula -tion	RB Size/ Offset	Max. Tune-up	Channel/Frequency(MHz)			Modula -tion	RB Size/ Offset	Max. Tune-up	Channel/Frequency(MHz)		
			20025/ 1717.5	20175/ 1732.5	20325/ 1747.5				20050/ 1720	20175/ 1732.5	20300/ 1745
QPSK	1/0	23.00	22.22	22.05	22.18	QPSK	1/0	23.00	22.03	**22.40**	22.15
	1/37	23.00	22.29	21.85	22.04		1/50	23.00	**22.21**	21.22	**22.20**
	1/74	23.00	22.15	21.80	22.03		1/99	23.00	21.88	21.97	21.83
	36/0	22.00	21.08	21.80	21.10		50/0	22.00	**21.24**	**21.11**	**21.21**
	36/19	22.00	21.09	20.94	21.04		50/25	22.00	21.10	21.04	21.15
	36/39	22.00	20.95	20.86	21.00		50/50	22.00	21.22	20.97	21.17
	75/0	22.00	21.06	20.95	21.01		100/0	22.00	21.24	21.10	**21.27**
16QAM	1/0	22.00	21.50	21.46	21.52	16QAM	1/0	22.00	21.05	20.55	21.42
	1/37	22.00	21.42	21.08	21.79		1/50	22.00	20.83	20.18	21.56
	1/74	22.00	21.32	21.28	21.54		1/99	22.00	20.54	20.99	20.94
	36/0	21.50	20.12	21.28	20.13		50/0	21.00	20.09	19.98	20.14
	36/19	21.00	20.01	19.91	20.06		50/25	21.00	20.24	20.04	20.11
	36/39	21.00	19.89	19.88	20.02		50/50	21.00	20.18	19.79	20.00
	75/0	21.00	20.08	19.83	20.04		100/0	21.00	20.10	19.89	20.13

Note:
1) The tested channel results are marks in bold.

5. Conducted power measurement results of LTE B5

LTE B5/BW=1.4M		Average Conducted Power(dBm)				LTE B5/BW=3M		Average Conducted Power(dBm)			
Modula-tion	RB Size/ Offset	Max. Tune-up	Channel/Frequency(MHz)			Modula-tion	RB Size/ Offset	Max. Tune-up	Channel/Frequency(MHz)		
			20407/ 824.7	20525/ 836.5	20643/ 848.3				20415/ 825.5	20525/ 836.5	20635/ 847.5
QPSK	1/0	23.00	21.88	21.73	21.92	QPSK	1/0	23.00	21.74	21.96	21.75
	1/2	23.00	21.86	21.81	21.96		1/7	23.00	22.01	22.14	22.07
	1/5	23.00	21.84	21.79	21.87		1/14	23.00	21.86	22.09	22.03
	3/0	23.00	21.89	21.87	21.87		8/0	22.00	20.86	20.81	20.84
	3/1	23.00	21.95	21.92	21.82		8/3	22.00	20.83	20.79	20.79
	3/3	23.00	21.96	21.81	21.77		8/7	22.00	20.80	20.95	20.83
	6/0	22.00	20.78	20.72	20.84		15/0	22.00	20.90	20.87	20.69
16QAM	1/0	22.00	20.89	20.63	20.49	16QAM	1/0	22.00	20.99	20.61	20.91
	1/2	22.00	20.73	20.82	20.78		1/7	22.00	21.09	21.06	21.01
	1/5	22.00	20.68	20.56	20.71		1/14	22.00	20.98	20.95	20.96
	3/0	22.00	20.91	20.37	20.54		8/0	21.00	19.97	19.76	19.84
	3/1	22.00	21.04	20.43	20.55		8/3	21.00	19.57	19.74	19.83
	3/3	22.00	20.57	20.43	20.60		8/7	21.00	19.55	19.70	19.93
	6/0	21.00	19.88	19.90	19.68		15/0	21.00	19.86	19.88	19.61
LTE B5/BW=5M		Average Conducted Power(dBm)				LTE B5/BW=10M		Average Conducted Power(dBm)			
Modula-tion	RB Size/ Offset	Max. Tune-up	Channel/Frequency(MHz)			Modula-tion	RB Size/ Offset	Max. Tune-up	Channel/Frequency(MHz)		
			20425/ 826.5	20525/ 836.5	20625/ 846.5				20450/ 829	20525/ 836.5	20600/ 844
QPSK	1/0	23.00	21.80	21.48	21.77	QPSK	1/0	23.00	21.97	21.84	21.86
	1/12	23.00	21.96	21.55	21.78		1/24	23.00	**22.18**	**22.19**	**22.14**
	1/24	23.00	22.11	21.61	21.80		1/49	23.00	22.16	21.85	21.68
	12/0	22.00	20.89	20.84	20.86		25/0	22.00	20.89	20.79	**20.83**
	12/6	22.00	20.83	20.79	20.87		25/12	22.00	**20.93**	**20.94**	20.82
	12/13	22.00	20.76	20.76	20.90		25/25	22.00	20.88	20.90	20.77
	25/0	22.00	20.80	20.76	20.79		50/0	22.00	20.92	20.85	20.81
16QAM	1/0	22.00	20.62	20.46	20.51	16QAM	1/0	22.00	20.83	21.15	20.86
	1/12	22.00	20.56	20.36	20.55		1/24	22.00	20.86	21.11	20.98
	1/24	22.00	20.23	20.32	20.57		1/49	22.00	20.92	21.27	20.86
	12/0	21.00	19.93	19.96	19.87		25/0	21.00	19.97	20.04	20.11
	12/6	21.00	19.96	19.91	19.78		25/12	21.00	19.94	20.17	19.99
	12/13	21.00	19.90	19.87	19.82		25/25	21.00	19.78	20.02	19.96
	25/0	21.00	20.05	19.92	19.75		50/0	21.00	20.01	19.86	19.94

Note:
1) The tested channel results are marks in bold.

6. Conducted power measurement results of LTE B12

LTE B12/BW=1.4M		Average Conducted Power(dBm)				LTE B12/BW=3M		Average Conducted Power(dBm)			
Modula-tion	RB Size/ Offset	Max. Tune-up	Channel/Frequency(MHz)			Modula-tion	RB Size/ Offset	Max. Tune-up	Channel/Frequency(MHz)		
			23017/ 699.7	23095/ 707.5	23173/ 715.3				23025/ 700.5	23095/ 707.5	23165/ 714.5
QPSK	1/0	23.00	22.77	22.92	22.76	QPSK	1/0	23.00	22.93	22.79	22.64
	1/2	23.00	22.85	22.93	22.82		1/7	23.00	22.92	22.91	22.87
	1/5	23.00	22.94	22.95	22.54		1/14	23.00	22.92	22.71	22.56
	3/0	23.00	22.91	22.65	22.77		8/0	22.00	21.96	21.86	21.77
	3/1	23.00	22.94	22.70	22.82		8/3	22.00	21.85	21.83	21.79
	3/3	23.00	22.95	22.92	22.74		8/7	22.00	21.88	21.80	21.85
	6/0	22.00	21.98	21.81	21.78		15/0	22.00	21.89	21.88	21.65
16QAM	1/0	22.00	21.65	21.80	21.65	16QAM	1/0	22.00	21.86	21.85	21.38
	1/2	22.00	21.95	21.65	21.79		1/7	22.00	21.84	21.94	21.63
	1/5	22.00	21.89	21.75	21.52		1/14	22.00	21.91	21.79	21.38
	3/0	22.00	21.92	21.42	21.26		8/0	21.00	20.68	20.78	20.71
	3/1	22.00	21.99	21.67	21.31		8/3	21.00	20.66	20.72	20.84
	3/3	22.00	21.87	21.68	21.20		8/7	21.00	20.62	20.65	20.80
	6/0	21.00	20.91	20.51	20.76		15/0	21.00	20.81	20.64	20.63
LTE B12/BW=5M		Average Conducted Power(dBm)				LTE B12/BW=10M		Average Conducted Power(dBm)			
Modula-tion	RB Size/ Offset	Max. Tune-up	Channel/Frequency(MHz)			Modula-tion	RB Size/ Offset	Max. Tune-up	Channel/Frequency(MHz)		
			23035/ 701.5	23095/ 707.5	23155/ 713.5				23060/ 704	23095/ 707.5	23130/ 711
QPSK	1/0	23.00	22.79	22.57	22.54	QPSK	1/0	23.00	**22.94**	22.76	22.72
	1/12	23.00	22.93	22.54	22.47		1/24	23.00	22.83	**22.97**	**22.84**
	1/24	23.00	22.88	22.20	22.29		1/49	23.00	22.66	22.87	22.65
	12/0	22.00	21.76	21.81	21.79		25/0	22.00	21.73	**21.92**	**21.82**
	12/6	22.00	21.90	21.80	21.71		25/12	22.00	**21.88**	21.77	21.68
	12/13	22.00	21.92	21.71	21.75		25/25	22.00	21.76	21.59	21.64
	25/0	22.00	21.82	21.83	21.55		50/0	22.00	21.75	21.77	21.63
16QAM	1/0	22.00	21.30	21.72	21.30	16QAM	1/0	22.00	21.78	22.00	21.60
	1/12	22.00	21.39	21.16	21.34		1/24	22.00	21.97	21.99	21.77
	1/24	22.00	21.44	21.08	20.94		1/49	22.00	21.76	21.88	21.58
	12/0	21.00	20.79	20.61	20.51		25/0	21.00	20.67	20.84	20.70
	12/6	21.00	20.94	20.66	20.60		25/12	21.00	20.62	20.76	20.86
	12/13	21.00	20.91	20.45	20.65		25/25	21.00	20.59	20.54	20.78
	25/0	21.00	20.55	20.68	20.24		50/0	21.00	20.60	20.80	20.62

Note:
1) The tested channel results are marks in bold.

7. Conducted power measurement results of BT

BT	Average Conducted Power(dBm)			
	Max. Tune up	CH0 2402MHz	CH39 2441MHz	CH78 2480MHz
DH5	10.00	**8.02**	**9.61**	**9.75**
2DH5	8.00	5.41	7.55	5.50
3DH5	8.00	5.40	7.52	5.53

BT	Average Conducted Power(dBm)			
	Max. Tune up	CH0 2402MHz	CH19 2441MHz	CH39 2480MHz
BLE(1M)	1.00	-2.13	0.22	0.83

Note:
1) The Average conducted power of BT is measured with RMS detector.

8. Conducted power measurement results of WiFi 2.4G

Band	Mode	Channel	Frequency (MHz)	Data Rate (Mbps)	Max. Tune up	Average Power(dBm)
2.4G WiFi	802.11b	1	2412	1	14.50	**13.71**
		6	2437		14.50	**13.74**
		11	2462		14.50	**13.51**
	802.11g	1	2412	6	12.50	10.91
		6	2437		12.50	11.72
		11	2462		12.50	11.30
	802.11n HT20	1	2412	6.5	11.50	10.01
		6	2437		11.50	10.55
		11	2462		11.50	10.42

Note:
1) The Average conducted power of WiFi 2.4GHz is measured with RMS detector.
2) Per KDB248227 D01, for WiFi 2.4GHz, the highest measured maximum output power Channel for DSSS modes (802.11b) was selected for SAR measurement. SAR for OFDM modes (2.4GHz 802.11g/n) was not required When the highest reported SAR for DSSS is adjusted by the ratio of OFDM modes (802.11g/n) to DSSS modes (802.11b) specified maximum output power and the adjusted SAR is ≤ 1.2 W/kg.
3) The tested channel results are marks in bold.