

Band4	20	20175	1	#Mid	QPSK	22.23	0.06	22.29
Band4	20	20175	1	#Max	QPSK	21.98	0.06	22.04
Band4	20	20175	50	#0	QPSK	21.10	0.06	21.16
Band4	20	20175	50	#Mid	QPSK	21.20	0.06	21.26
Band4	20	20175	50	#Max	QPSK	20.96	0.06	21.02
Band4	20	20175	100	#0	QPSK	21.06	0.06	21.12
Band4	20	20175	1	#0	QAM16	21.22	0.06	21.28
Band4	20	20175	1	#Mid	QAM16	21.45	0.06	21.51
Band4	20	20175	1	#Max	QAM16	21.22	0.06	21.28
Band4	20	20175	50	#0	QAM16	20.10	0.06	20.16
Band4	20	20175	50	#Mid	QAM16	20.23	0.06	20.29
Band4	20	20175	50	#Max	QAM16	19.99	0.06	20.05
Band4	20	20175	100	#0	QAM16	20.14	0.06	20.20
Band4	20	20300	1	#0	QPSK	21.99	0.06	22.05
Band4	20	20300	1	#Mid	QPSK	21.79	0.06	21.85
Band4	20	20300	1	#Max	QPSK	21.61	0.06	21.67
Band4	20	20300	50	#0	QPSK	21.17	0.06	21.23
Band4	20	20300	50	#Mid	QPSK	20.92	0.06	20.98
Band4	20	20300	50	#Max	QPSK	20.69	0.06	20.75
Band4	20	20300	100	#0	QPSK	20.98	0.06	21.04
Band4	20	20300	1	#0	QAM16	21.34	0.06	21.40
Band4	20	20300	1	#Mid	QAM16	21.16	0.06	21.22
Band4	20	20300	1	#Max	QAM16	20.94	0.06	21.00
Band4	20	20300	50	#0	QAM16	20.28	0.06	20.34
Band4	20	20300	50	#Mid	QAM16	20.06	0.06	20.12
Band4	20	20300	50	#Max	QAM16	19.81	0.06	19.87
Band4	20	20300	100	#0	QAM16	20.09	0.06	20.15

Band	Bandwidth (MHz)	UL Channel	RB Size	RB Position	Modulation	Power (dBm)	Gain (dBm)	ERP (dBm)
Band5	1.4	20407	1	#0	QPSK	23.12	-0.18	20.79
Band5	1.4	20407	1	#Mid	QPSK	23.21	-0.18	20.88
Band5	1.4	20407	1	#Max	QPSK	23.16	-0.18	20.83
Band5	1.4	20407	3	#0	QPSK	23.22	-0.18	20.89
Band5	1.4	20407	3	#Mid	QPSK	23.17	-0.18	20.84
Band5	1.4	20407	3	#Max	QPSK	23.14	-0.18	20.81
Band5	1.4	20407	6	#0	QPSK	22.26	-0.18	19.93
Band5	1.4	20407	1	#0	QAM16	21.97	-0.18	19.64
Band5	1.4	20407	1	#Mid	QAM16	22.02	-0.18	19.69
Band5	1.4	20407	1	#Max	QAM16	21.99	-0.18	19.66
Band5	1.4	20407	3	#0	QAM16	22.30	-0.18	19.97
Band5	1.4	20407	3	#Mid	QAM16	22.33	-0.18	20.00
Band5	1.4	20407	3	#Max	QAM16	22.33	-0.18	20.00
Band5	1.4	20407	6	#0	QAM16	21.45	-0.18	19.12
Band5	1.4	20525	1	#0	QPSK	23.14	-0.18	20.81
Band5	1.4	20525	1	#Mid	QPSK	23.18	-0.18	20.85
Band5	1.4	20525	1	#Max	QPSK	23.13	-0.18	20.80
Band5	1.4	20525	3	#0	QPSK	23.07	-0.18	20.74
Band5	1.4	20525	3	#Mid	QPSK	23.13	-0.18	20.80
Band5	1.4	20525	3	#Max	QPSK	23.12	-0.18	20.79
Band5	1.4	20525	6	#0	QPSK	22.18	-0.18	19.85
Band5	1.4	20525	1	#0	QAM16	22.25	-0.18	19.92
Band5	1.4	20525	1	#Mid	QAM16	22.30	-0.18	19.97
Band5	1.4	20525	1	#Max	QAM16	22.31	-0.18	19.98
Band5	1.4	20525	3	#0	QAM16	22.33	-0.18	20.00
Band5	1.4	20525	3	#Mid	QAM16	22.34	-0.18	20.01
Band5	1.4	20525	3	#Max	QAM16	22.32	-0.18	19.99
Band5	1.4	20525	6	#0	QAM16	21.42	-0.18	19.09
Band5	1.4	20643	1	#0	QPSK	23.01	-0.18	20.68
Band5	1.4	20643	1	#Mid	QPSK	23.09	-0.18	20.76
Band5	1.4	20643	1	#Max	QPSK	22.98	-0.18	20.65
Band5	1.4	20643	3	#0	QPSK	23.13	-0.18	20.80
Band5	1.4	20643	3	#Mid	QPSK	23.15	-0.18	20.82
Band5	1.4	20643	3	#Max	QPSK	23.12	-0.18	20.79
Band5	1.4	20643	6	#0	QPSK	22.18	-0.18	19.85
Band5	1.4	20643	1	#0	QAM16	22.28	-0.18	19.95
Band5	1.4	20643	1	#Mid	QAM16	22.27	-0.18	19.94
Band5	1.4	20643	1	#Max	QAM16	22.27	-0.18	19.94
Band5	1.4	20643	3	#0	QAM16	22.38	-0.18	20.05
Band5	1.4	20643	3	#Mid	QAM16	22.41	-0.18	20.08
Band5	1.4	20643	3	#Max	QAM16	22.38	-0.18	20.05
Band5	1.4	20643	6	#0	QAM16	21.36	-0.18	19.03
Band5	3	20415	1	#0	QPSK	22.98	-0.18	20.65
Band5	3	20415	1	#Mid	QPSK	23.09	-0.18	20.76
Band5	3	20415	1	#Max	QPSK	23.06	-0.18	20.73
Band5	3	20415	8	#0	QPSK	22.17	-0.18	19.84
Band5	3	20415	8	#Mid	QPSK	22.20	-0.18	19.87
Band5	3	20415	8	#Max	QPSK	22.18	-0.18	19.85
Band5	3	20415	15	#0	QPSK	22.18	-0.18	19.85
Band5	3	20415	1	#0	QAM16	21.91	-0.18	19.58
Band5	3	20415	1	#Mid	QAM16	21.92	-0.18	19.59
Band5	3	20415	1	#Max	QAM16	21.86	-0.18	19.53
Band5	3	20415	8	#0	QAM16	21.11	-0.18	18.78
Band5	3	20415	8	#Mid	QAM16	21.19	-0.18	18.86

Band5	3	20415	8	#Max	QAM16	21.18	-0.18	18.85
Band5	3	20415	15	#0	QAM16	21.25	-0.18	18.92
Band5	3	20525	1	#0	QPSK	22.91	-0.18	20.58
Band5	3	20525	1	#Mid	QPSK	22.98	-0.18	20.65
Band5	3	20525	1	#Max	QPSK	22.90	-0.18	20.57
Band5	3	20525	8	#0	QPSK	22.12	-0.18	19.79
Band5	3	20525	8	#Mid	QPSK	22.16	-0.18	19.83
Band5	3	20525	8	#Max	QPSK	22.15	-0.18	19.82
Band5	3	20525	15	#0	QPSK	22.14	-0.18	19.81
Band5	3	20525	1	#0	QAM16	22.39	-0.18	20.06
Band5	3	20525	1	#Mid	QAM16	22.47	-0.18	20.14
Band5	3	20525	1	#Max	QAM16	22.35	-0.18	20.02
Band5	3	20525	8	#0	QAM16	21.16	-0.18	18.83
Band5	3	20525	8	#Mid	QAM16	21.23	-0.18	18.90
Band5	3	20525	8	#Max	QAM16	21.18	-0.18	18.85
Band5	3	20525	15	#0	QAM16	21.20	-0.18	18.87
Band5	3	20635	1	#0	QPSK	22.94	-0.18	20.61
Band5	3	20635	1	#Mid	QPSK	23.03	-0.18	20.70
Band5	3	20635	1	#Max	QPSK	22.92	-0.18	20.59
Band5	3	20635	8	#0	QPSK	22.15	-0.18	19.82
Band5	3	20635	8	#Mid	QPSK	22.22	-0.18	19.89
Band5	3	20635	8	#Max	QPSK	22.20	-0.18	19.87
Band5	3	20635	15	#0	QPSK	22.19	-0.18	19.86
Band5	3	20635	1	#0	QAM16	22.16	-0.18	19.83
Band5	3	20635	1	#Mid	QAM16	22.27	-0.18	19.94
Band5	3	20635	1	#Max	QAM16	22.17	-0.18	19.84
Band5	3	20635	8	#0	QAM16	21.21	-0.18	18.88
Band5	3	20635	8	#Mid	QAM16	21.25	-0.18	18.92
Band5	3	20635	8	#Max	QAM16	21.18	-0.18	18.85
Band5	3	20635	15	#0	QAM16	21.16	-0.18	18.83
Band5	5	20425	1	#0	QPSK	23.17	-0.18	20.84
Band5	5	20425	1	#Mid	QPSK	23.21	-0.18	20.88
Band5	5	20425	1	#Max	QPSK	23.17	-0.18	20.84
Band5	5	20425	12	#0	QPSK	22.20	-0.18	19.87
Band5	5	20425	12	#Mid	QPSK	22.28	-0.18	19.95
Band5	5	20425	12	#Max	QPSK	22.18	-0.18	19.85
Band5	5	20425	25	#0	QPSK	22.22	-0.18	19.89
Band5	5	20425	1	#0	QAM16	22.72	-0.18	20.39
Band5	5	20425	1	#Mid	QAM16	22.76	-0.18	20.43
Band5	5	20425	1	#Max	QAM16	22.72	-0.18	20.39
Band5	5	20425	12	#0	QAM16	21.19	-0.18	18.86
Band5	5	20425	12	#Mid	QAM16	21.23	-0.18	18.90
Band5	5	20425	12	#Max	QAM16	21.19	-0.18	18.86
Band5	5	20425	25	#0	QAM16	21.24	-0.18	18.91
Band5	5	20525	1	#0	QPSK	23.17	-0.18	20.84
Band5	5	20525	1	#Mid	QPSK	23.22	-0.18	20.89
Band5	5	20525	1	#Max	QPSK	23.19	-0.18	20.86
Band5	5	20525	12	#0	QPSK	22.20	-0.18	19.87
Band5	5	20525	12	#Mid	QPSK	22.28	-0.18	19.95
Band5	5	20525	12	#Max	QPSK	22.25	-0.18	19.92
Band5	5	20525	25	#0	QPSK	22.23	-0.18	19.90
Band5	5	20525	1	#0	QAM16	22.54	-0.18	20.21
Band5	5	20525	1	#Mid	QAM16	22.64	-0.18	20.31
Band5	5	20525	1	#Max	QAM16	22.57	-0.18	20.24
Band5	5	20525	12	#0	QAM16	21.17	-0.18	18.84
Band5	5	20525	12	#Mid	QAM16	21.23	-0.18	18.90
Band5	5	20525	12	#Max	QAM16	21.22	-0.18	18.89

Band5	5	20525	25	#0	QAM16	21.33	-0.18	19.00
Band5	5	20625	1	#0	QPSK	23.13	-0.18	20.80
Band5	5	20625	1	#Mid	QPSK	23.24	-0.18	20.91
Band5	5	20625	1	#Max	QPSK	23.14	-0.18	20.81
Band5	5	20625	12	#0	QPSK	22.40	-0.18	20.07
Band5	5	20625	12	#Mid	QPSK	22.32	-0.18	19.99
Band5	5	20625	12	#Max	QPSK	22.27	-0.18	19.94
Band5	5	20625	25	#0	QPSK	22.34	-0.18	20.01
Band5	5	20625	1	#0	QAM16	22.54	-0.18	20.21
Band5	5	20625	1	#Mid	QAM16	22.64	-0.18	20.31
Band5	5	20625	1	#Max	QAM16	22.59	-0.18	20.26
Band5	5	20625	12	#0	QAM16	21.42	-0.18	19.09
Band5	5	20625	12	#Mid	QAM16	21.36	-0.18	19.03
Band5	5	20625	12	#Max	QAM16	21.35	-0.18	19.02
Band5	5	20625	25	#0	QAM16	21.35	-0.18	19.02
Band5	10	20450	1	#0	QPSK	23.26	-0.18	20.93
Band5	10	20450	1	#Mid	QPSK	23.23	-0.18	20.90
Band5	10	20450	1	#Max	QPSK	23.28	-0.18	20.95
Band5	10	20450	25	#0	QPSK	22.18	-0.18	19.85
Band5	10	20450	25	#Mid	QPSK	22.24	-0.18	19.91
Band5	10	20450	25	#Max	QPSK	22.21	-0.18	19.88
Band5	10	20450	50	#0	QPSK	22.24	-0.18	19.91
Band5	10	20450	1	#0	QAM16	22.72	-0.18	20.39
Band5	10	20450	1	#Mid	QAM16	22.65	-0.18	20.32
Band5	10	20450	1	#Max	QAM16	22.73	-0.18	20.40
Band5	10	20450	25	#0	QAM16	21.27	-0.18	18.94
Band5	10	20450	25	#Mid	QAM16	21.30	-0.18	18.97
Band5	10	20450	25	#Max	QAM16	21.28	-0.18	18.95
Band5	10	20450	50	#0	QAM16	21.23	-0.18	18.90
Band5	10	20525	1	#0	QPSK	23.28	-0.18	20.95
Band5	10	20525	1	#Mid	QPSK	23.24	-0.18	20.91
Band5	10	20525	1	#Max	QPSK	23.33	-0.18	21.00
Band5	10	20525	25	#0	QPSK	22.26	-0.18	19.93
Band5	10	20525	25	#Mid	QPSK	22.28	-0.18	19.95
Band5	10	20525	25	#Max	QPSK	22.38	-0.18	20.05
Band5	10	20525	50	#0	QPSK	22.36	-0.18	20.03
Band5	10	20525	1	#0	QAM16	22.45	-0.18	20.12
Band5	10	20525	1	#Mid	QAM16	22.49	-0.18	20.16
Band5	10	20525	1	#Max	QAM16	22.54	-0.18	20.21
Band5	10	20525	25	#0	QAM16	21.33	-0.18	19.00
Band5	10	20525	25	#Mid	QAM16	21.32	-0.18	18.99
Band5	10	20525	25	#Max	QAM16	21.38	-0.18	19.05
Band5	10	20525	50	#0	QAM16	21.39	-0.18	19.06
Band5	10	20600	1	#0	QPSK	23.32	-0.18	20.99
Band5	10	20600	1	#Mid	QPSK	23.34	-0.18	21.01
Band5	10	20600	1	#Max	QPSK	23.36	-0.18	21.03
Band5	10	20600	25	#0	QPSK	22.27	-0.18	19.94
Band5	10	20600	25	#Mid	QPSK	22.27	-0.18	19.94
Band5	10	20600	25	#Max	QPSK	22.18	-0.18	19.85
Band5	10	20600	50	#0	QPSK	22.24	-0.18	19.91
Band5	10	20600	1	#0	QAM16	22.18	-0.18	19.85
Band5	10	20600	1	#Mid	QAM16	22.16	-0.18	19.83
Band5	10	20600	1	#Max	QAM16	22.23	-0.18	19.90
Band5	10	20600	25	#0	QAM16	21.28	-0.18	18.95
Band5	10	20600	25	#Mid	QAM16	21.33	-0.18	19.00
Band5	10	20600	25	#Max	QAM16	21.20	-0.18	18.87
Band5	10	20600	50	#0	QAM16	21.23	-0.18	18.90

Band	Bandwidth (MHz)	UL Channel	RB Size	RB Position	Modulation	Power (dBm)	Gain (dBm)	ERP (dBm)
Band7	5	20775	1	#0	QPSK	22.03	0.23	20.11
Band7	5	20775	1	#Mid	QPSK	22.03	0.23	20.11
Band7	5	20775	1	#Max	QPSK	21.98	0.23	20.06
Band7	5	20775	12	#0	QPSK	20.96	0.23	19.04
Band7	5	20775	12	#Mid	QPSK	21.00	0.23	19.08
Band7	5	20775	12	#Max	QPSK	20.94	0.23	19.02
Band7	5	20775	25	#0	QPSK	20.98	0.23	19.06
Band7	5	20775	1	#0	QAM16	21.18	0.23	19.26
Band7	5	20775	1	#Mid	QAM16	21.21	0.23	19.29
Band7	5	20775	1	#Max	QAM16	21.12	0.23	19.20
Band7	5	20775	12	#0	QAM16	19.88	0.23	17.96
Band7	5	20775	12	#Mid	QAM16	19.93	0.23	18.01
Band7	5	20775	12	#Max	QAM16	19.86	0.23	17.94
Band7	5	20775	25	#0	QAM16	19.96	0.23	18.04
Band7	5	21100	1	#0	QPSK	21.96	0.23	20.04
Band7	5	21100	1	#Mid	QPSK	22.00	0.23	20.08
Band7	5	21100	1	#Max	QPSK	22.01	0.23	20.09
Band7	5	21100	12	#0	QPSK	21.05	0.23	19.13
Band7	5	21100	12	#Mid	QPSK	21.08	0.23	19.16
Band7	5	21100	12	#Max	QPSK	21.10	0.23	19.18
Band7	5	21100	25	#0	QPSK	21.09	0.23	19.17
Band7	5	21100	1	#0	QAM16	21.22	0.23	19.30
Band7	5	21100	1	#Mid	QAM16	21.27	0.23	19.35
Band7	5	21100	1	#Max	QAM16	21.25	0.23	19.33
Band7	5	21100	12	#0	QAM16	20.01	0.23	18.09
Band7	5	21100	12	#Mid	QAM16	20.07	0.23	18.15
Band7	5	21100	12	#Max	QAM16	20.09	0.23	18.17
Band7	5	21100	25	#0	QAM16	20.05	0.23	18.13
Band7	5	21425	1	#0	QPSK	21.82	0.23	19.90
Band7	5	21425	1	#Mid	QPSK	21.91	0.23	19.99
Band7	5	21425	1	#Max	QPSK	21.96	0.23	20.04
Band7	5	21425	12	#0	QPSK	20.88	0.23	18.96
Band7	5	21425	12	#Mid	QPSK	20.91	0.23	18.99
Band7	5	21425	12	#Max	QPSK	20.92	0.23	19.00
Band7	5	21425	25	#0	QPSK	20.84	0.23	18.92
Band7	5	21425	1	#0	QAM16	21.14	0.23	19.22
Band7	5	21425	1	#Mid	QAM16	21.24	0.23	19.32
Band7	5	21425	1	#Max	QAM16	21.28	0.23	19.36
Band7	5	21425	12	#0	QAM16	19.84	0.23	17.92
Band7	5	21425	12	#Mid	QAM16	19.86	0.23	17.94
Band7	5	21425	12	#Max	QAM16	19.88	0.23	17.96
Band7	5	21425	25	#0	QAM16	19.80	0.23	17.88
Band7	10	20800	1	#0	QPSK	22.09	0.23	20.17
Band7	10	20800	1	#Mid	QPSK	22.00	0.23	20.08
Band7	10	20800	1	#Max	QPSK	21.99	0.23	20.07
Band7	10	20800	25	#0	QPSK	20.97	0.23	19.05
Band7	10	20800	25	#Mid	QPSK	20.98	0.23	19.06
Band7	10	20800	25	#Max	QPSK	20.98	0.23	19.06
Band7	10	20800	50	#0	QPSK	21.00	0.23	19.08
Band7	10	20800	1	#0	QAM16	21.32	0.23	19.40
Band7	10	20800	1	#Mid	QAM16	21.23	0.23	19.31
Band7	10	20800	1	#Max	QAM16	21.20	0.23	19.28
Band7	10	20800	25	#0	QAM16	19.96	0.23	18.04
Band7	10	20800	25	#Mid	QAM16	19.98	0.23	18.06

Band7	10	20800	25	#Max	QAM16	19.92	0.23	18.00
Band7	10	20800	50	#0	QAM16	19.95	0.23	18.03
Band7	10	21100	1	#0	QPSK	22.06	0.23	20.14
Band7	10	21100	1	#Mid	QPSK	22.11	0.23	20.19
Band7	10	21100	1	#Max	QPSK	22.20	0.23	20.28
Band7	10	21100	25	#0	QPSK	21.04	0.23	19.12
Band7	10	21100	25	#Mid	QPSK	21.10	0.23	19.18
Band7	10	21100	25	#Max	QPSK	21.12	0.23	19.20
Band7	10	21100	50	#0	QPSK	21.13	0.23	19.21
Band7	10	21100	1	#0	QAM16	21.11	0.23	19.19
Band7	10	21100	1	#Mid	QAM16	21.21	0.23	19.29
Band7	10	21100	1	#Max	QAM16	21.26	0.23	19.34
Band7	10	21100	25	#0	QAM16	20.02	0.23	18.10
Band7	10	21100	25	#Mid	QAM16	20.08	0.23	18.16
Band7	10	21100	25	#Max	QAM16	20.12	0.23	18.20
Band7	10	21100	50	#0	QAM16	20.08	0.23	18.16
Band7	10	21400	1	#0	QPSK	21.97	0.23	20.05
Band7	10	21400	1	#Mid	QPSK	21.99	0.23	20.07
Band7	10	21400	1	#Max	QPSK	22.14	0.23	20.22
Band7	10	21400	25	#0	QPSK	20.84	0.23	18.92
Band7	10	21400	25	#Mid	QPSK	20.85	0.23	18.93
Band7	10	21400	25	#Max	QPSK	20.86	0.23	18.94
Band7	10	21400	50	#0	QPSK	20.83	0.23	18.91
Band7	10	21400	1	#0	QAM16	20.61	0.23	18.69
Band7	10	21400	1	#Mid	QAM16	20.64	0.23	18.72
Band7	10	21400	1	#Max	QAM16	20.79	0.23	18.87
Band7	10	21400	25	#0	QAM16	19.84	0.23	17.92
Band7	10	21400	25	#Mid	QAM16	19.84	0.23	17.92
Band7	10	21400	25	#Max	QAM16	19.88	0.23	17.96
Band7	10	21400	50	#0	QAM16	19.77	0.23	17.85
Band7	15	20825	1	#0	QPSK	22.19	0.23	20.27
Band7	15	20825	1	#Mid	QPSK	22.11	0.23	20.19
Band7	15	20825	1	#Max	QPSK	22.04	0.23	20.12
Band7	15	20825	36	#0	QPSK	21.08	0.23	19.16
Band7	15	20825	36	#Mid	QPSK	21.02	0.23	19.10
Band7	15	20825	36	#Max	QPSK	21.01	0.23	19.09
Band7	15	20825	75	#0	QPSK	21.09	0.23	19.17
Band7	15	20825	1	#0	QAM16	21.13	0.23	19.21
Band7	15	20825	1	#Mid	QAM16	21.00	0.23	19.08
Band7	15	20825	1	#Max	QAM16	20.95	0.23	19.03
Band7	15	20825	36	#0	QAM16	19.96	0.23	18.04
Band7	15	20825	36	#Mid	QAM16	19.93	0.23	18.01
Band7	15	20825	36	#Max	QAM16	19.88	0.23	17.96
Band7	15	20825	75	#0	QAM16	20.00	0.23	18.08
Band7	15	21100	1	#0	QPSK	21.99	0.23	20.07
Band7	15	21100	1	#Mid	QPSK	22.08	0.23	20.16
Band7	15	21100	1	#Max	QPSK	22.10	0.23	20.18
Band7	15	21100	36	#0	QPSK	21.05	0.23	19.13
Band7	15	21100	36	#Mid	QPSK	21.13	0.23	19.21
Band7	15	21100	36	#Max	QPSK	21.17	0.23	19.25
Band7	15	21100	75	#0	QPSK	21.18	0.23	19.26
Band7	15	21100	1	#0	QAM16	21.28	0.23	19.36
Band7	15	21100	1	#Mid	QAM16	21.35	0.23	19.43
Band7	15	21100	1	#Max	QAM16	21.44	0.23	19.52
Band7	15	21100	36	#0	QAM16	20.05	0.23	18.13
Band7	15	21100	36	#Mid	QAM16	20.10	0.23	18.18
Band7	15	21100	36	#Max	QAM16	20.14	0.23	18.22

Band7	15	21100	75	#0	QAM16	20.10	0.23	18.18
Band7	15	21375	1	#0	QPSK	21.88	0.23	19.96
Band7	15	21375	1	#Mid	QPSK	21.84	0.23	19.92
Band7	15	21375	1	#Max	QPSK	21.97	0.23	20.05
Band7	15	21375	36	#0	QPSK	20.93	0.23	19.01
Band7	15	21375	36	#Mid	QPSK	20.96	0.23	19.04
Band7	15	21375	36	#Max	QPSK	20.97	0.23	19.05
Band7	15	21375	75	#0	QPSK	20.98	0.23	19.06
Band7	15	21375	1	#0	QAM16	20.94	0.23	19.02
Band7	15	21375	1	#Mid	QAM16	20.90	0.23	18.98
Band7	15	21375	1	#Max	QAM16	21.03	0.23	19.11
Band7	15	21375	36	#0	QAM16	19.88	0.23	17.96
Band7	15	21375	36	#Mid	QAM16	19.97	0.23	18.05
Band7	15	21375	36	#Max	QAM16	19.96	0.23	18.04
Band7	15	21375	75	#0	QAM16	19.85	0.23	17.93
Band7	20	20850	1	#0	QPSK	22.07	0.23	20.15
Band7	20	20850	1	#Mid	QPSK	22.03	0.23	20.11
Band7	20	20850	1	#Max	QPSK	21.94	0.23	20.02
Band7	20	20850	50	#0	QPSK	20.86	0.23	18.94
Band7	20	20850	50	#Mid	QPSK	20.88	0.23	18.96
Band7	20	20850	50	#Max	QPSK	20.86	0.23	18.94
Band7	20	20850	100	#0	QPSK	20.87	0.23	18.95
Band7	20	20850	1	#0	QAM16	21.14	0.23	19.22
Band7	20	20850	1	#Mid	QAM16	21.09	0.23	19.17
Band7	20	20850	1	#Max	QAM16	20.99	0.23	19.07
Band7	20	20850	50	#0	QAM16	19.87	0.23	17.95
Band7	20	20850	50	#Mid	QAM16	19.87	0.23	17.95
Band7	20	20850	50	#Max	QAM16	19.86	0.23	17.94
Band7	20	20850	100	#0	QAM16	19.83	0.23	17.91
Band7	20	21100	1	#0	QPSK	21.95	0.23	20.03
Band7	20	21100	1	#Mid	QPSK	22.19	0.23	20.27
Band7	20	21100	1	#Max	QPSK	22.18	0.23	20.26
Band7	20	21100	50	#0	QPSK	21.02	0.23	19.10
Band7	20	21100	50	#Mid	QPSK	21.10	0.23	19.18
Band7	20	21100	50	#Max	QPSK	21.12	0.23	19.20
Band7	20	21100	100	#0	QPSK	21.07	0.23	19.15
Band7	20	21100	1	#0	QAM16	21.08	0.23	19.16
Band7	20	21100	1	#Mid	QAM16	21.37	0.23	19.45
Band7	20	21100	1	#Max	QAM16	21.31	0.23	19.39
Band7	20	21100	50	#0	QAM16	20.03	0.23	18.11
Band7	20	21100	50	#Mid	QAM16	20.15	0.23	18.23
Band7	20	21100	50	#Max	QAM16	20.17	0.23	18.25
Band7	20	21100	100	#0	QAM16	20.03	0.23	18.11
Band7	20	21350	1	#0	QPSK	22.03	0.23	20.11
Band7	20	21350	1	#Mid	QPSK	22.01	0.23	20.09
Band7	20	21350	1	#Max	QPSK	22.08	0.23	20.16
Band7	20	21350	50	#0	QPSK	20.86	0.23	18.94
Band7	20	21350	50	#Mid	QPSK	20.83	0.23	18.91
Band7	20	21350	50	#Max	QPSK	20.83	0.23	18.91
Band7	20	21350	100	#0	QPSK	20.86	0.23	18.94
Band7	20	21350	1	#0	QAM16	21.00	0.23	19.08
Band7	20	21350	1	#Mid	QAM16	20.98	0.23	19.06
Band7	20	21350	1	#Max	QAM16	21.05	0.23	19.13
Band7	20	21350	50	#0	QAM16	19.80	0.23	17.88
Band7	20	21350	50	#Mid	QAM16	19.80	0.23	17.88
Band7	20	21350	50	#Max	QAM16	19.75	0.23	17.83
Band7	20	21350	100	#0	QAM16	19.79	0.23	17.87

Band	Bandwidth (MHz)	UL Channel	RB Size	RB Position	Modulation	Power (dBm)	Gain (dBm)	ERP (dBm)
Band12	1.4	23017	1	#0	QPSK	23.20	-0.42	20.63
Band12	1.4	23017	1	#Mid	QPSK	23.23	-0.42	20.66
Band12	1.4	23017	1	#Max	QPSK	23.15	-0.42	20.58
Band12	1.4	23017	3	#0	QPSK	23.29	-0.42	20.72
Band12	1.4	23017	3	#Mid	QPSK	23.27	-0.42	20.70
Band12	1.4	23017	3	#Max	QPSK	23.27	-0.42	20.70
Band12	1.4	23017	6	#0	QPSK	22.35	-0.42	19.78
Band12	1.4	23017	1	#0	QAM16	22.35	-0.42	19.78
Band12	1.4	23017	1	#Mid	QAM16	22.38	-0.42	19.81
Band12	1.4	23017	1	#Max	QAM16	22.30	-0.42	19.73
Band12	1.4	23017	3	#0	QAM16	22.45	-0.42	19.88
Band12	1.4	23017	3	#Mid	QAM16	22.53	-0.42	19.96
Band12	1.4	23017	3	#Max	QAM16	22.46	-0.42	19.89
Band12	1.4	23017	6	#0	QAM16	21.49	-0.42	18.92
Band12	1.4	23095	1	#0	QPSK	23.25	-0.42	20.68
Band12	1.4	23095	1	#Mid	QPSK	23.29	-0.42	20.72
Band12	1.4	23095	1	#Max	QPSK	23.20	-0.42	20.63
Band12	1.4	23095	3	#0	QPSK	23.31	-0.42	20.74
Band12	1.4	23095	3	#Mid	QPSK	23.30	-0.42	20.73
Band12	1.4	23095	3	#Max	QPSK	23.26	-0.42	20.69
Band12	1.4	23095	6	#0	QPSK	22.38	-0.42	19.81
Band12	1.4	23095	1	#0	QAM16	22.14	-0.42	19.57
Band12	1.4	23095	1	#Mid	QAM16	22.17	-0.42	19.60
Band12	1.4	23095	1	#Max	QAM16	22.15	-0.42	19.58
Band12	1.4	23095	3	#0	QAM16	22.45	-0.42	19.88
Band12	1.4	23095	3	#Mid	QAM16	22.45	-0.42	19.88
Band12	1.4	23095	3	#Max	QAM16	22.49	-0.42	19.92
Band12	1.4	23095	6	#0	QAM16	21.58	-0.42	19.01
Band12	1.4	23173	1	#0	QPSK	23.34	-0.42	20.77
Band12	1.4	23173	1	#Mid	QPSK	23.40	-0.42	20.83
Band12	1.4	23173	1	#Max	QPSK	23.34	-0.42	20.77
Band12	1.4	23173	3	#0	QPSK	23.30	-0.42	20.73
Band12	1.4	23173	3	#Mid	QPSK	23.34	-0.42	20.77
Band12	1.4	23173	3	#Max	QPSK	23.32	-0.42	20.75
Band12	1.4	23173	6	#0	QPSK	22.45	-0.42	19.88
Band12	1.4	23173	1	#0	QAM16	22.41	-0.42	19.84
Band12	1.4	23173	1	#Mid	QAM16	22.47	-0.42	19.90
Band12	1.4	23173	1	#Max	QAM16	22.41	-0.42	19.84
Band12	1.4	23173	3	#0	QAM16	22.51	-0.42	19.94
Band12	1.4	23173	3	#Mid	QAM16	22.54	-0.42	19.97
Band12	1.4	23173	3	#Max	QAM16	22.50	-0.42	19.93
Band12	1.4	23173	6	#0	QAM16	21.60	-0.42	19.03
Band12	3	23025	1	#0	QPSK	23.05	-0.42	20.48
Band12	3	23025	1	#Mid	QPSK	23.10	-0.42	20.53
Band12	3	23025	1	#Max	QPSK	23.01	-0.42	20.44
Band12	3	23025	8	#0	QPSK	22.24	-0.42	19.67
Band12	3	23025	8	#Mid	QPSK	22.30	-0.42	19.73
Band12	3	23025	8	#Max	QPSK	22.26	-0.42	19.69
Band12	3	23025	15	#0	QPSK	22.26	-0.42	19.69
Band12	3	23025	1	#0	QAM16	22.26	-0.42	19.69
Band12	3	23025	1	#Mid	QAM16	22.32	-0.42	19.75
Band12	3	23025	1	#Max	QAM16	22.24	-0.42	19.67
Band12	3	23025	8	#0	QAM16	21.26	-0.42	18.69
Band12	3	23025	8	#Mid	QAM16	21.31	-0.42	18.74

Band12	3	23025	8	#Max	QAM16	21.22	-0.42	18.65
Band12	3	23025	15	#0	QAM16	21.23	-0.42	18.66
Band12	3	23095	1	#0	QPSK	23.06	-0.42	20.49
Band12	3	23095	1	#Mid	QPSK	23.17	-0.42	20.60
Band12	3	23095	1	#Max	QPSK	23.13	-0.42	20.56
Band12	3	23095	8	#0	QPSK	22.20	-0.42	19.63
Band12	3	23095	8	#Mid	QPSK	22.35	-0.42	19.78
Band12	3	23095	8	#Max	QPSK	22.31	-0.42	19.74
Band12	3	23095	15	#0	QPSK	22.34	-0.42	19.77
Band12	3	23095	1	#0	QAM16	21.99	-0.42	19.42
Band12	3	23095	1	#Mid	QAM16	22.07	-0.42	19.50
Band12	3	23095	1	#Max	QAM16	22.01	-0.42	19.44
Band12	3	23095	8	#0	QAM16	21.22	-0.42	18.65
Band12	3	23095	8	#Mid	QAM16	21.32	-0.42	18.75
Band12	3	23095	8	#Max	QAM16	21.37	-0.42	18.80
Band12	3	23095	15	#0	QAM16	21.41	-0.42	18.84
Band12	3	23165	1	#0	QPSK	23.04	-0.42	20.47
Band12	3	23165	1	#Mid	QPSK	23.18	-0.42	20.61
Band12	3	23165	1	#Max	QPSK	23.11	-0.42	20.54
Band12	3	23165	8	#0	QPSK	22.38	-0.42	19.81
Band12	3	23165	8	#Mid	QPSK	22.43	-0.42	19.86
Band12	3	23165	8	#Max	QPSK	22.43	-0.42	19.86
Band12	3	23165	15	#0	QPSK	22.41	-0.42	19.84
Band12	3	23165	1	#0	QAM16	22.53	-0.42	19.96
Band12	3	23165	1	#Mid	QAM16	22.64	-0.42	20.07
Band12	3	23165	1	#Max	QAM16	22.51	-0.42	19.94
Band12	3	23165	8	#0	QAM16	21.37	-0.42	18.80
Band12	3	23165	8	#Mid	QAM16	21.49	-0.42	18.92
Band12	3	23165	8	#Max	QAM16	21.43	-0.42	18.86
Band12	3	23165	15	#0	QAM16	21.40	-0.42	18.83
Band12	5	23035	1	#0	QPSK	23.33	-0.42	20.76
Band12	5	23035	1	#Mid	QPSK	23.33	-0.42	20.76
Band12	5	23035	1	#Max	QPSK	23.33	-0.42	20.76
Band12	5	23035	12	#0	QPSK	22.33	-0.42	19.76
Band12	5	23035	12	#Mid	QPSK	22.39	-0.42	19.82
Band12	5	23035	12	#Max	QPSK	22.26	-0.42	19.69
Band12	5	23035	25	#0	QPSK	22.33	-0.42	19.76
Band12	5	23035	1	#0	QAM16	22.61	-0.42	20.04
Band12	5	23035	1	#Mid	QAM16	22.67	-0.42	20.10
Band12	5	23035	1	#Max	QAM16	22.66	-0.42	20.09
Band12	5	23035	12	#0	QAM16	21.31	-0.42	18.74
Band12	5	23035	12	#Mid	QAM16	21.33	-0.42	18.76
Band12	5	23035	12	#Max	QAM16	21.22	-0.42	18.65
Band12	5	23035	25	#0	QAM16	21.33	-0.42	18.76
Band12	5	23095	1	#0	QPSK	23.30	-0.42	20.73
Band12	5	23095	1	#Mid	QPSK	23.35	-0.42	20.78
Band12	5	23095	1	#Max	QPSK	23.26	-0.42	20.69
Band12	5	23095	12	#0	QPSK	22.27	-0.42	19.70
Band12	5	23095	12	#Mid	QPSK	22.43	-0.42	19.86
Band12	5	23095	12	#Max	QPSK	22.53	-0.42	19.96
Band12	5	23095	25	#0	QPSK	22.43	-0.42	19.86
Band12	5	23095	1	#0	QAM16	22.69	-0.42	20.12
Band12	5	23095	1	#Mid	QAM16	22.73	-0.42	20.16
Band12	5	23095	1	#Max	QAM16	22.65	-0.42	20.08
Band12	5	23095	12	#0	QAM16	21.30	-0.42	18.73
Band12	5	23095	12	#Mid	QAM16	21.46	-0.42	18.89
Band12	5	23095	12	#Max	QAM16	21.54	-0.42	18.97

Band12	5	23095	25	#0	QAM16	21.42	-0.42	18.85
Band12	5	23155	1	#0	QPSK	23.31	-0.42	20.74
Band12	5	23155	1	#Mid	QPSK	23.36	-0.42	20.79
Band12	5	23155	1	#Max	QPSK	23.38	-0.42	20.81
Band12	5	23155	12	#0	QPSK	22.47	-0.42	19.90
Band12	5	23155	12	#Mid	QPSK	22.47	-0.42	19.90
Band12	5	23155	12	#Max	QPSK	22.46	-0.42	19.89
Band12	5	23155	25	#0	QPSK	22.49	-0.42	19.92
Band12	5	23155	1	#0	QAM16	22.81	-0.42	20.24
Band12	5	23155	1	#Mid	QAM16	22.90	-0.42	20.33
Band12	5	23155	1	#Max	QAM16	22.90	-0.42	20.33
Band12	5	23155	12	#0	QAM16	21.50	-0.42	18.93
Band12	5	23155	12	#Mid	QAM16	21.45	-0.42	18.88
Band12	5	23155	12	#Max	QAM16	21.42	-0.42	18.85
Band12	5	23155	25	#0	QAM16	21.48	-0.42	18.91
Band12	10	23060	1	#0	QPSK	23.42	-0.42	20.85
Band12	10	23060	1	#Mid	QPSK	23.41	-0.42	20.84
Band12	10	23060	1	#Max	QPSK	23.45	-0.42	20.88
Band12	10	23060	25	#0	QPSK	22.47	-0.42	19.90
Band12	10	23060	25	#Mid	QPSK	22.48	-0.42	19.91
Band12	10	23060	25	#Max	QPSK	22.55	-0.42	19.98
Band12	10	23060	50	#0	QPSK	22.55	-0.42	19.98
Band12	10	23060	1	#0	QAM16	22.58	-0.42	20.01
Band12	10	23060	1	#Mid	QAM16	22.62	-0.42	20.05
Band12	10	23060	1	#Max	QAM16	22.64	-0.42	20.07
Band12	10	23060	25	#0	QAM16	21.47	-0.42	18.90
Band12	10	23060	25	#Mid	QAM16	21.47	-0.42	18.90
Band12	10	23060	25	#Max	QAM16	21.54	-0.42	18.97
Band12	10	23060	50	#0	QAM16	21.58	-0.42	19.01
Band12	10	23095	1	#0	QPSK	23.42	-0.42	20.85
Band12	10	23095	1	#Mid	QPSK	23.45	-0.42	20.88
Band12	10	23095	1	#Max	QPSK	23.53	-0.42	20.96
Band12	10	23095	25	#0	QPSK	22.30	-0.42	19.73
Band12	10	23095	25	#Mid	QPSK	22.45	-0.42	19.88
Band12	10	23095	25	#Max	QPSK	22.59	-0.42	20.02
Band12	10	23095	50	#0	QPSK	22.47	-0.42	19.90
Band12	10	23095	1	#0	QAM16	22.30	-0.42	19.73
Band12	10	23095	1	#Mid	QAM16	22.36	-0.42	19.79
Band12	10	23095	1	#Max	QAM16	22.37	-0.42	19.80
Band12	10	23095	25	#0	QAM16	21.35	-0.42	18.78
Band12	10	23095	25	#Mid	QAM16	21.45	-0.42	18.88
Band12	10	23095	25	#Max	QAM16	21.57	-0.42	19.00
Band12	10	23095	50	#0	QAM16	21.46	-0.42	18.89
Band12	10	23130	1	#0	QPSK	23.39	-0.42	20.82
Band12	10	23130	1	#Mid	QPSK	23.40	-0.42	20.83
Band12	10	23130	1	#Max	QPSK	23.52	-0.42	20.95
Band12	10	23130	25	#0	QPSK	22.19	-0.42	19.62
Band12	10	23130	25	#Mid	QPSK	22.45	-0.42	19.88
Band12	10	23130	25	#Max	QPSK	22.28	-0.42	19.71
Band12	10	23130	50	#0	QPSK	22.27	-0.42	19.70
Band12	10	23130	1	#0	QAM16	22.89	-0.42	20.32
Band12	10	23130	1	#Mid	QAM16	22.81	-0.42	20.24
Band12	10	23130	1	#Max	QAM16	22.91	-0.42	20.34
Band12	10	23130	25	#0	QAM16	21.25	-0.42	18.68
Band12	10	23130	25	#Mid	QAM16	21.48	-0.42	18.91
Band12	10	23130	25	#Max	QAM16	21.35	-0.42	18.78
Band12	10	23130	50	#0	QAM16	21.29	-0.42	18.72

Band	Bandwidth (MHz)	UL Channel	RB Size	RB Position	Modulation	Power (dBm)	Gain (dBm)	ERP (dBm)
Band17	5	23755	1	#0	QPSK	23.30	-0.42	20.73
Band17	5	23755	1	#Mid	QPSK	23.37	-0.42	20.80
Band17	5	23755	1	#Max	QPSK	23.32	-0.42	20.75
Band17	5	23755	12	#0	QPSK	22.27	-0.42	19.70
Band17	5	23755	12	#Mid	QPSK	22.44	-0.42	19.87
Band17	5	23755	12	#Max	QPSK	22.46	-0.42	19.89
Band17	5	23755	25	#0	QPSK	22.42	-0.42	19.85
Band17	5	23755	1	#0	QAM16	22.71	-0.42	20.14
Band17	5	23755	1	#Mid	QAM16	22.72	-0.42	20.15
Band17	5	23755	1	#Max	QAM16	22.67	-0.42	20.10
Band17	5	23755	12	#0	QAM16	21.25	-0.42	18.68
Band17	5	23755	12	#Mid	QAM16	21.39	-0.42	18.82
Band17	5	23755	12	#Max	QAM16	21.44	-0.42	18.87
Band17	5	23755	25	#0	QAM16	21.48	-0.42	18.91
Band17	5	23790	1	#0	QPSK	23.24	-0.42	20.67
Band17	5	23790	1	#Mid	QPSK	23.29	-0.42	20.72
Band17	5	23790	1	#Max	QPSK	23.23	-0.42	20.66
Band17	5	23790	12	#0	QPSK	22.20	-0.42	19.63
Band17	5	23790	12	#Mid	QPSK	22.39	-0.42	19.82
Band17	5	23790	12	#Max	QPSK	22.34	-0.42	19.77
Band17	5	23790	25	#0	QPSK	22.31	-0.42	19.74
Band17	5	23790	1	#0	QAM16	22.67	-0.42	20.10
Band17	5	23790	1	#Mid	QAM16	22.68	-0.42	20.11
Band17	5	23790	1	#Max	QAM16	22.63	-0.42	20.06
Band17	5	23790	12	#0	QAM16	21.28	-0.42	18.71
Band17	5	23790	12	#Mid	QAM16	21.41	-0.42	18.84
Band17	5	23790	12	#Max	QAM16	21.34	-0.42	18.77
Band17	5	23790	25	#0	QAM16	21.29	-0.42	18.72
Band17	5	23825	1	#0	QPSK	23.25	-0.42	20.68
Band17	5	23825	1	#Mid	QPSK	23.36	-0.42	20.79
Band17	5	23825	1	#Max	QPSK	23.36	-0.42	20.79
Band17	5	23825	12	#0	QPSK	22.48	-0.42	19.91
Band17	5	23825	12	#Mid	QPSK	22.47	-0.42	19.90
Band17	5	23825	12	#Max	QPSK	22.45	-0.42	19.88
Band17	5	23825	25	#0	QPSK	22.46	-0.42	19.89
Band17	5	23825	1	#0	QAM16	22.81	-0.42	20.24
Band17	5	23825	1	#Mid	QAM16	22.92	-0.42	20.35
Band17	5	23825	1	#Max	QAM16	22.91	-0.42	20.34
Band17	5	23825	12	#0	QAM16	21.47	-0.42	18.90
Band17	5	23825	12	#Mid	QAM16	21.46	-0.42	18.89
Band17	5	23825	12	#Max	QAM16	21.42	-0.42	18.85
Band17	5	23825	25	#0	QAM16	21.49	-0.42	18.92
Band17	10	23780	1	#0	QPSK	23.37	-0.42	20.80
Band17	10	23780	1	#Mid	QPSK	23.37	-0.42	20.80
Band17	10	23780	1	#Max	QPSK	23.43	-0.42	20.86
Band17	10	23780	25	#0	QPSK	22.18	-0.42	19.61
Band17	10	23780	25	#Mid	QPSK	22.44	-0.42	19.87
Band17	10	23780	25	#Max	QPSK	22.38	-0.42	19.81
Band17	10	23780	50	#0	QPSK	22.30	-0.42	19.73
Band17	10	23780	1	#0	QAM16	22.82	-0.42	20.25
Band17	10	23780	1	#Mid	QAM16	22.80	-0.42	20.23
Band17	10	23780	1	#Max	QAM16	22.89	-0.42	20.32
Band17	10	23780	25	#0	QAM16	21.26	-0.42	18.69
Band17	10	23780	25	#Mid	QAM16	21.45	-0.42	18.88

Band17	10	23780	25	#Max	QAM16	21.42	-0.42	18.85
Band17	10	23780	50	#0	QAM16	21.33	-0.42	18.76
Band17	10	23790	1	#0	QPSK	23.39	-0.42	20.82
Band17	10	23790	1	#Mid	QPSK	23.41	-0.42	20.84
Band17	10	23790	1	#Max	QPSK	23.40	-0.42	20.83
Band17	10	23790	25	#0	QPSK	22.17	-0.42	19.60
Band17	10	23790	25	#Mid	QPSK	22.43	-0.42	19.86
Band17	10	23790	25	#Max	QPSK	22.26	-0.42	19.69
Band17	10	23790	50	#0	QPSK	22.28	-0.42	19.71
Band17	10	23790	1	#0	QAM16	22.58	-0.42	20.01
Band17	10	23790	1	#Mid	QAM16	22.56	-0.42	19.99
Band17	10	23790	1	#Max	QAM16	22.62	-0.42	20.05
Band17	10	23790	25	#0	QAM16	21.24	-0.42	18.67
Band17	10	23790	25	#Mid	QAM16	21.41	-0.42	18.84
Band17	10	23790	25	#Max	QAM16	21.26	-0.42	18.69
Band17	10	23790	50	#0	QAM16	21.26	-0.42	18.69
Band17	10	23800	1	#0	QPSK	23.48	-0.42	20.91
Band17	10	23800	1	#Mid	QPSK	23.47	-0.42	20.90
Band17	10	23800	1	#Max	QPSK	23.60	-0.42	21.03
Band17	10	23800	25	#0	QPSK	22.19	-0.42	19.62
Band17	10	23800	25	#Mid	QPSK	22.46	-0.42	19.89
Band17	10	23800	25	#Max	QPSK	22.27	-0.42	19.70
Band17	10	23800	50	#0	QPSK	22.24	-0.42	19.67
Band17	10	23800	1	#0	QAM16	22.37	-0.42	19.80
Band17	10	23800	1	#Mid	QAM16	22.28	-0.42	19.71
Band17	10	23800	1	#Max	QAM16	22.38	-0.42	19.81
Band17	10	23800	25	#0	QAM16	21.20	-0.42	18.63
Band17	10	23800	25	#Mid	QAM16	21.45	-0.42	18.88
Band17	10	23800	25	#Max	QAM16	21.31	-0.42	18.74
Band17	10	23800	50	#0	QAM16	21.19	-0.42	18.62

WIFI2.4G

Mode	Frequency (MHz)	Conducted Power (dBm)
b	2412	15.03
b	2437	14.85
b	2462	15.24
g	2412	13.43
g	2437	13.81
g	2462	14.06
n20	2412	12.44
n20	2437	12.83
n20	2462	12.92
n40	2422	11.84
n40	2437	11.9
n40	2452	12.05

Note: SAR is not required for the following 2.4 GHz OFDM conditions as the highest reported SAR for DSSS is adjusted by the ratio of OFDM to DSSS specified maximum output power and the adjusted SAR is ≤ 1.2 W/kg.

WIFI5.1G

Mode	Frequency (MHz)	Conducted Power (dBm)
a	5180	11.42
a	5200	11.88
a	5240	12.31
n20	5180	10.32
n20	5200	10.66
n20	5240	10.98
n40	5190	9.25
n40	5230	9.89
ac20	5180	10.21
ac20	5200	10.7
ac20	5240	10.89
ac40	5190	9.11
ac40	5230	9.73
ac80	5210	8.5

WIFI5.8G

Mode	Frequency (MHz)	Conducted Power (dBm)
a	5745	10.83
a	5785	10.27
a	5825	9.74
n20	5745	9.71
n20	5785	9.2
n20	5825	8.5
n40	5755	8.73
n40	5795	8.04
ac20	5745	9.61
ac20	5785	9.14
ac20	5825	8.47
ac40	5755	8.71
ac40	5795	7.95
ac80	5775	7.37

Bluetooth

Mode	Frequency (MHz)	Conducted Power (dBm)
1-DH1	2402	2.75
1-DH1	2441	2.63
1-DH1	2480	1.74
2-DH1	2402	2.55
2-DH1	2441	2.43
2-DH1	2480	1.52
3-DH1	2402	2.56
3-DH1	2441	2.43
3-DH1	2480	1.02

	Frequency	Maximum Conducted Output Power(PK)
	(MHz)	(dBm)
GFSK 1Mbps	2402	3.57
	2440	3.01
	2480	1.53
GFSK 2Mbps	2402	3.43
	2440	2.95
	2480	1.49

Per KDB 447498 D01v06, the 1-g and 10-g SAR test exclusion thresholds for 100 MHz to 6 GHz at test separation distances ≤ 50 mm are determined by:

$$[(\text{max. power of channel, including tune-up tolerance, mW})/(\text{min. test separation distance, mm})] \cdot \sqrt{f(\text{GHz})}$$

≤ 3.0 for 1-g SAR and ≤ 7.5 for 10-g extremity SAR

f(GHz) is the RF channel transmit frequency in GHz

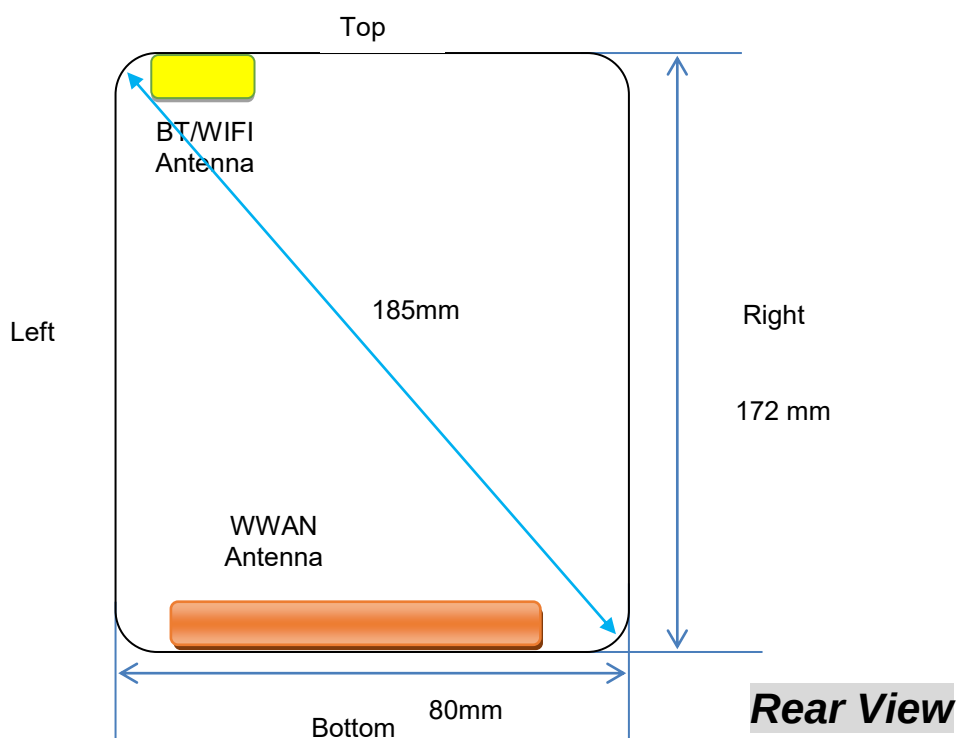
Power and distance are rounded to the nearest mW and mm before calculation

The result is rounded to one decimal place for comparison

Bluetooth Turn up Power (dBm)	Separation Distance (mm)	Frequency (GHz)	Exclusion Thresholds
4.0	5	2.45	1.6

Per KDB 447498 D01v06, when the minimum test separation distance is < 5 mm, a distance of 5 mm is applied to determine SAR test exclusion. The test exclusion threshold is $1.6 < 3.0$, SAR testing is not required.

14.2 Transmit Antennas and SAR Measurement Position



Antenna information:

BT/WIFI Antenna	TX/RX
234G Antenna	TX/RX

Note:

- 1). Per KDB648474 D04, 10-g extremity SAR is not required when Body-Worn mode 1-g reported SAR < 1.2 W/Kg.
- 2). According to the KDB941225 D06 Hot Spot SAR v02, the edges with less than 25 mm distance to the antennas need to be tested for SAR.

Distance of The Antenna to the EUT surface and edge (mm)						
Antennas	Front	Back	Top Side	Bottom Side	Left Side	Right Side
WIFI/BT	<5	<5	<5	158	<5	59
WWAN	<5	<5	156	<5	<5	20

Positions for SAR tests; Hotspot mode						
Antennas	Front	Back	Top Side	Bottom Side	Left Side	Right Side
WIFI/BT	Yes	Yes	Yes	No	Yes	No
WWAN	Yes	Yes	No	Yes	Yes	Yes

General Note: Referring to KDB 941225 D06 v02, When the overall device length and width are 9cm*5cm, the test distance is 0mm, SAR must be measured for all sides and surfaces with a transmitting antenna located with 25mm from that surface or edge.

14.3 Test Results for Standalone SAR Test

The calculated SAR is obtained by the following formula:

$$\text{Reported SAR} = \text{Measured SAR} * 10(P_{\text{target}} - P_{\text{measured}}) / 10$$

$$\text{Scaling factor} = 10(P_{\text{target}} - P_{\text{measured}}) / 10$$

$$\text{Reported SAR} = \text{Measured SAR} * \text{Scaling factor}$$

Where

P_{target} is the power of manufacturing upper limit;

P_{measured} is the measured power;

Measured SAR is measured SAR at measured power which including power drift)

Reported SAR which including Power Drift and Scaling factor

Duty Cycle

Test Mode	Duty Cycle
GSM	4:8
UMTS	1:1
LTE	1:1
BT	1:1
WIFI	1:1

SAR Values [GSM 850]

Ch.	Freq. (MHz)	Time slots	Test Position	Conducted Power (dBm)	Maximum Allowed Power (dBm)	Power Drift (%)	Scaling Factor	SAR1-g results(W/kg)		Graph Results
								Measured	Reported	
measured / reported SAR numbers – Head										
128	824.2	Voice	Left Cheek	33.54	34.00	N/A	1.112	0.274	0.305	Plot 1
128	824.2	Voice	Left Tilt	33.54	34.00	N/A	1.112	0.189	0.210	
128	824.2	Voice	Right Cheek	33.54	34.00	N/A	1.112	0.210	0.233	
128	824.2	Voice	Right Tilt	33.54	34.00	N/A	1.112	0.123	0.137	
measured / reported SAR numbers - Body (hotspot open, distance 10mm)										
190	836.6	2Txslots	Front	32.51	33.00	N/A	1.119	0.134	0.150	
190	836.6	2Txslots	Rear	32.51	33.00	N/A	1.119	0.183	0.205	Plot 2
190	836.6	2Txslots	Left	32.51	33.00	N/A	1.119	0.112	0.125	
190	836.6	2Txslots	Right	32.51	33.00	N/A	1.119	0.087	0.097	
190	836.6	2Txslots	Bottom	32.51	33.00	N/A	1.119	0.076	0.150	

Remark:

1. The value with black color is the maximum SAR Value of each test band.

2. The frame average of GPRS (4Tx slots) higher than GSM and sample can support VoIP function, tested at GPRS (4Tx slots) mode for head.

3. Per FCC KDB Publication 447498 D01, if the reported (scaled) SAR measured at the middle channel or highest output power channel for each test configuration is ≤ 0.8 W/kg then testing at the other channels is optional for such test configuration(s).

SAR Values [GSM 1900]

Ch.	Freq. (MHz)	Time slots	Test Position	Conducted Power (dBm)	Maximum Allowed Power (dBm)	Power Drift (%)	Scaling Factor	SAR1-g results(W/kg)		Graph Results
								Measured	Reported	
measured / reported SAR numbers – Head										
661	1880	Voice	Left Cheek	29.41	29.50	N/A	1.021	0.291	0.297	Plot 3
661	1880	Voice	Left Tilt	29.41	29.50	N/A	1.021	0.192	0.196	
661	1880	Voice	Right Cheek	29.41	29.50	N/A	1.021	0.254	0.259	

661	1880	Voice	Right Tilt	29.41	29.50	N/A	1.021	0.160	0.163	
measured / reported SAR numbers - Body (hotspot open, distance 10mm)										
661	1880	3Txslots	Front	25.71	26.00	N/A	1.069	0.112	0.120	
661	1880	3Txslots	Rear	25.71	26.00	N/A	1.069	0.159	0.170	Plot 4
661	1880	3Txslots	Left	25.71	26.00	N/A	1.069	0.103	0.110	
661	1880	3Txslots	Right	25.71	26.00	N/A	1.069	0.087	0.093	
661	1880	3Txslots	Bottom	25.71	26.00	N/A	1.069	0.066	0.071	

Remark:

1. The value with black color is the maximum SAR Value of each test band.
2. The frame average of GPRS (4Tx slots) higher than GSM and sample can support VoIP function, tested at GPRS (4Tx slots) mode for head.
3. Per FCC KDB Publication 447498 D01, if the reported (scaled) SAR measured at the middle channel or highest output power channel for each test configuration is ≤ 0.8 W/kg then testing at the other channels is optional for such test configuration(s).

SAR Values [WCDMA Band II]

Ch.	Freq. (MHz)	Time slots	Test Position	Conducted Power (dBm)	Maximum Allowed Power (dBm)	Power Drift (%)	Scaling Factor	SAR1-g results(W/kg)		Graph Results
								Measured	Reported	
measured / reported SAR numbers – Head										
9538	1907.6	RMC*	Left Cheek	23.34	23.50	N/A	1.038	0.422	0.438	Plot 5
9538	1907.6	RMC*	Left Tilt	23.34	23.50	N/A	1.038	0.281	0.292	
9538	1907.6	RMC*	Right Cheek	23.34	23.50	N/A	1.038	0.397	0.412	
9538	1907.6	RMC*	Right Tilt	23.34	23.50	N/A	1.038	0.220	0.228	
measured / reported SAR numbers - Body (hotspot open, distance 10mm)										
9538	1907.6	RMC*	Front	23.34	23.50	N/A	1.038	0.242	0.251	
9538	1907.6	RMC*	Rear	23.34	23.50	N/A	1.038	0.299	0.310	Plot 6
9538	1907.6	RMC*	Left	23.34	23.50	N/A	1.038	0.190	0.197	
9538	1907.6	RMC*	Right	23.34	23.50	N/A	1.038	0.166	0.172	
9538	1907.6	RMC*	Bottom	23.34	23.50	N/A	1.038	0.132	0.137	

Remark:

1. The value with black color is the maximum SAR Value of each test band.
2. Per FCC KDB Publication 447498 D01, if the reported (scaled) SAR measured at the middle channel or highest output power channel for each test configuration is ≤ 0.8 W/kg then testing at the other channels is optional for such test configuration(s).
3. RMC* - RMC 12.2kbps mode;

SAR Values [WCDMA Band IV]

Ch.	Freq. (MHz)	Time slots	Test Position	Conducted Power (dBm)	Maximum Allowed Power (dBm)	Power Drift (%)	Scaling Factor	SAR1-g results(W/kg)		Graph Results
								Measured	Reported	
measured / reported SAR numbers – Head										
1312	1712.4	RMC*	Left Cheek	22.82	23.00	N/A	1.042	0.488	0.509	Plot 7
1312	1712.4	RMC*	Left Tilt	22.82	23.00	N/A	1.042	0.297	0.310	
1312	1712.4	RMC*	Right Cheek	22.82	23.00	N/A	1.042	0.412	0.429	
1312	1712.4	RMC*	Right Tilt	22.82	23.00	N/A	1.042	0.230	0.240	
measured / reported SAR numbers - Body (hotspot open, distance 10mm)										
1312	1712.4	RMC*	Front	22.82	23.00	N/A	1.042	0.312	0.325	
1312	1712.4	RMC*	Rear	22.82	23.00	N/A	1.042	0.499	0.520	Plot 8
1312	1712.4	RMC*	Left	22.82	23.00	N/A	1.042	0.280	0.292	
1312	1712.4	RMC*	Right	22.82	23.00	N/A	1.042	0.261	0.272	
1312	1712.4	RMC*	Bottom	22.82	23.00	N/A	1.042	0.196	0.204	

Remark:

1. The value with black color is the maximum SAR Value of each test band.
2. Per FCC KDB Publication 447498 D01, if the reported (scaled) SAR measured at the middle channel or highest output power channel for each test configuration is ≤ 0.8 W/kg then testing at the other channels is optional for such test configuration(s).
3. RMC* - RMC 12.2kbps mode;

SAR Values [WCDMA Band V]

Ch.	Freq. (MHz)	Time slots	Test Position	Conducted Power (dBm)	Maximum Allowed Power (dBm)	Power Drift (%)	Scaling Factor	SAR1-g results(W/kg)		Graph Results
								Measured	Reported	
measured / reported SAR numbers – Head										
4132	826.4	RMC*	Left Cheek	24.48	24.50	N/A	1.005	0.285	0.286	Plot 9
4132	826.4	RMC*	Left Tilt	24.48	24.50	N/A	1.005	0.175	0.176	
4132	826.4	RMC*	Right Cheek	24.48	24.50	N/A	1.005	0.231	0.232	
4132	826.4	RMC*	Right Tilt	24.48	24.50	N/A	1.005	0.162	0.163	
measured / reported SAR numbers - Body (hotspot open, distance 10mm)										
4132	826.4	RMC*	Front	24.48	24.50	N/A	1.005	0.378	0.380	
4132	826.4	RMC*	Rear	24.48	24.50	N/A	1.005	0.415	0.417	Plot 10
4132	826.4	RMC*	Left	24.48	24.50	N/A	1.005	0.320	0.321	
4132	826.4	RMC*	Right	24.48	24.50	N/A	1.005	0.274	0.275	
4132	826.4	RMC*	Bottom	24.48	24.50	N/A	1.005	0.209	0.210	

Remark:

1. The value with black color is the maximum SAR Value of each test band.
2. Per FCC KDB Publication 447498 D01, if the reported (scaled) SAR measured at the middle channel or highest output power channel for each test configuration is ≤ 0.8 W/kg then testing at the other channels is optional for such test configuration(s).
3. RMC* - RMC 12.2kbps mode;

SAR Values [LTE Band 2]

Ch.	Freq. (MHz)	Time slots	Test Position	Condu cted Power (dBm)	Maximu m Allowed Power (dBm)	Pow er Drift (%)	Scalin g Facto r	SAR1-g results(W/kg)		Graph Results
								Measure d	Report ed	
measured / reported SAR numbers – Head										
18700	1860.0	1RB	Left Cheek	22.42	22.50	N/A	1.019	0.435	0.443	Plot 11
18700	1860.0	1RB	Left Tilt	22.42	22.50	N/A	1.019	0.269	0.274	
18700	1860.0	1RB	Right Cheek	22.42	22.50	N/A	1.019	0.378	0.385	
18700	1860.0	1RB	Right Tilt	22.42	22.50	N/A	1.019	0.210	0.214	
18700	1860.0	50%RB	Left Cheek	21.41	21.50	N/A	1.021	0.403	0.411	
18700	1860.0	50%RB	Left Tilt	21.41	21.50	N/A	1.021	0.200	0.204	
18700	1860.0	50%RB	Right Cheek	21.41	21.50	N/A	1.021	0.328	0.335	
18700	1860.0	50%RB	Right Tilt	21.41	21.50	N/A	1.021	0.175	0.179	
measured / reported SAR numbers - Body (hotspot open, distance 10mm)										
18700	1860.0	1RB	Front	22.42	22.50	N/A	1.019	0.123	0.125	Plot 12
18700	1860.0	1RB	Rear	22.42	22.50	N/A	1.019	0.195	0.199	
18700	1860.0	1RB	Left	22.42	22.50	N/A	1.019	0.109	0.111	
18700	1860.0	1RB	Right	22.42	22.50	N/A	1.019	0.088	0.090	
18700	1860.0	1RB	Bottom	22.42	22.50	N/A	1.019	0.072	0.073	
18700	1860.0	50%RB	Front	21.41	21.50	N/A	1.021	0.100	0.102	
18700	1860.0	50%RB	Rear	21.41	21.50	N/A	1.021	0.171	0.175	
18700	1860.0	50%RB	Left	21.41	21.50	N/A	1.021	0.078	0.080	
18700	1860.0	50%RB	Right	21.41	21.50	N/A	1.021	0.054	0.055	
18700	1860.0	50%RB	Bottom	21.41	21.50	N/A	1.021	0.050	0.051	

SAR Values [LTE Band 4]

Ch.	Freq. (MHz)	Time slots	Test Position	Condu cted Power (dBm)	Maximu m Allowed Power (dBm)	Pow er Drift (%)	Scalin g Facto r	SAR1-g results(W/kg)		Graph Results
								Measure d	Report ed	
measured / reported SAR numbers – Head										
20175	1732.5	1RB	Left Cheek	22.23	22.50	N/A	1.064	0.464	0.494	Plot 13
20175	1732.5	1RB	Left Tilt	22.23	22.50	N/A	1.064	0.212	0.226	
20175	1732.5	1RB	Right Cheek	22.23	22.50	N/A	1.064	0.403	0.429	
20175	1732.5	1RB	Right Tilt	22.23	22.50	N/A	1.064	0.187	0.199	
20175	1732.5	50%RB	Left Cheek	21.20	21.50	N/A	1.072	0.412	0.441	
20175	1732.5	50%RB	Left Tilt	21.20	21.50	N/A	1.072	0.177	0.190	
20175	1732.5	50%RB	Right Cheek	21.20	21.50	N/A	1.072	0.380	0.407	
20175	1732.5	50%RB	Right Tilt	21.20	21.50	N/A	1.072	0.150	0.161	
measured / reported SAR numbers - Body (hotspot open, distance 10mm)										
20175	1732.5	1RB	Front	22.23	22.50	N/A	1.064	0.371	0.395	Plot 14
20175	1732.5	1RB	Rear	22.23	22.50	N/A	1.064	0.421	0.448	
20175	1732.5	1RB	Left	22.23	22.50	N/A	1.064	0.312	0.332	
20175	1732.5	1RB	Right	22.23	22.50	N/A	1.064	0.284	0.302	
20175	1732.5	1RB	Bottom	22.23	22.50	N/A	1.064	0.241	0.256	
20175	1732.5	50%RB	Front	21.20	21.50	N/A	1.072	0.340	0.364	
20175	1732.5	50%RB	Rear	21.20	21.50	N/A	1.072	0.400	0.429	
20175	1732.5	50%RB	Left	21.20	21.50	N/A	1.072	0.282	0.302	
20175	1732.5	50%RB	Right	21.20	21.50	N/A	1.072	0.260	0.279	
20175	1732.5	50%RB	Bottom	21.20	21.50	1.99	1.072	0.210	0.225	

SAR Values [LTE Band 5]

Ch.	Freq. (MHz)	Time slots	Test Position	Conducte d Power (dBm)	Maximu m Allowed Power (dBm)	Pow er Drift (%)	Scalin g Facto r	SAR1-g results(W/kg)		Graph Results
								Measure d	Report ed	
measured / reported SAR numbers – Head										
20600	848.3	1RB	Left Cheek	23.36	23.50	N/A	1.033	0.217	0.224	Plot 15
20600	848.3	1RB	Left Tilt	23.36	23.50	N/A	1.033	0.156	0.161	
20600	848.3	1RB	Right Cheek	23.36	23.50	N/A	1.033	0.187	0.193	
20600	848.3	1RB	Right Tilt	23.36	23.50	N/A	1.033	0.120	0.124	
20600	848.3	50%RB	Left Cheek	22.27	22.50	N/A	1.054	0.182	0.192	
20600	848.3	50%RB	Left Tilt	22.27	22.50	N/A	1.054	0.133	0.140	
20600	848.3	50%RB	Right Cheek	22.27	22.50	N/A	1.054	0.150	0.158	
20600	848.3	50%RB	Right Tilt	22.27	22.50	N/A	1.054	0.101	0.106	
measured / reported SAR numbers - Body (hotspot open, distance 10mm)										
20600	848.3	1RB	Front	23.36	23.50	N/A	1.033	0.187	0.193	Plot 16
20600	848.3	1RB	Rear	23.36	23.50	N/A	1.033	0.257	0.265	
20600	848.3	1RB	Left	23.36	23.50	N/A	1.033	0.162	0.167	
20600	848.3	1RB	Right	23.36	23.50	N/A	1.033	0.140	0.145	
20600	848.3	1RB	Bottom	23.36	23.50	N/A	1.033	0.112	0.116	
20600	848.3	50%RB	Front	22.27	22.50	N/A	1.054	0.152	0.160	
20600	848.3	50%RB	Rear	22.27	22.50	N/A	1.054	0.213	0.225	
20600	848.3	50%RB	Left	22.27	22.50	N/A	1.054	0.120	0.127	
20600	848.3	50%RB	Right	22.27	22.50	N/A	1.054	0.103	0.109	
20600	848.3	50%RB	Bottom	22.27	22.50	N/A	1.054	0.087	0.092	

SAR Values [LTE Band 7]

Ch.	Freq. (MHz)	Time slots	Test Position	Conducted	Maximum	Power	Scaling	SAR1-g results(W/kg)		Graph Results
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				Power r (dBm)	Allowed Power (dBm)	Drift (%)	Factor	Measured	Reporte d	
measured / reported SAR numbers – Head										
21100	2535	1RB	Left Cheek	22.19	22.50	N/A	1.074	0.543	0.583	Plot 17
21100	2535	1RB	Left Tilt	22.19	22.50	N/A	1.074	0.305	0.328	
21100	2535	1RB	Right Cheek	22.19	22.50	N/A	1.074	0.512	0.550	
21100	2535	1RB	Right Tilt	22.19	22.50	N/A	1.074	0.265	0.285	
21100	2535	50%RB	Left Cheek	21.12	21.50	N/A	1.091	0.511	0.558	
21100	2535	50%RB	Left Tilt	21.12	21.50	N/A	1.091	0.274	0.299	
21100	2535	50%RB	Right Cheek	21.12	21.50	N/A	1.091	0.487	0.532	
21100	2535	50%RB	Right Tilt	21.12	21.50	N/A	1.091	0.213	0.232	
measured / reported SAR numbers - Body (hotspot open, distance 10mm)										
21100	2535	1RB	Front	22.19	22.50	N/A	1.074	0.188	0.202	
21100	2535	1RB	Rear	22.19	22.50	N/A	1.074	0.250	0.268	Plot 18
21100	2535	1RB	Left	22.19	22.50	N/A	1.074	0.152	0.163	
21100	2535	1RB	Right	22.19	22.50	N/A	1.074	0.120	0.129	
21100	2535	1RB	Bottom	22.19	22.50	N/A	1.074	0.100	0.107	
21100	2535	50%RB	Front	21.12	21.50	N/A	1.091	0.151	0.165	
21100	2535	50%RB	Rear	21.12	21.50	N/A	1.091	0.210	0.229	
21100	2535	50%RB	Left	21.12	21.50	N/A	1.091	0.112	0.122	
21100	2535	50%RB	Right	21.12	21.50	N/A	1.091	0.102	0.111	
21100	2535	50%RB	Bottom	21.12	21.50	N/A	1.091	0.084	0.092	

SAR Values [LTE Band 12]

Ch.	Freq. (MHz)	Time slots	Test Position	Conducted Power (dBm)	Maximum Allowed Power (dBm)	Power Drift (%)	Scaling Factor	SAR1-g results(W/kg)		Graph Results
								Measured	Reported	
measured / reported SAR numbers – Head										
23095	707.5	1RB	Left Cheek	23.53	24.00	N/A	1.114	0.179	0.199	Plot 19
23095	707.5	1RB	Left Tilt	23.53	24.00	N/A	1.114	0.102	0.114	
23095	707.5	1RB	Right Cheek	23.53	24.00	N/A	1.114	0.150	0.167	
23095	707.5	1RB	Right Tilt	23.53	24.00	N/A	1.114	0.074	0.082	
23095	707.5	50%RB	Left Cheek	22.59	23.00	N/A	1.099	0.151	0.166	
23095	707.5	50%RB	Left Tilt	22.59	23.00	N/A	1.099	0.075	0.082	
23095	707.5	50%RB	Right Cheek	22.59	23.00	N/A	1.099	0.120	0.132	
23095	707.5	50%RB	Right Tilt	22.59	23.00	N/A	1.099	0.060	0.066	
measured / reported SAR numbers - Body (hotspot open, distance 10mm)										
23095	707.5	1RB	Front	23.53	24.00	N/A	1.114	0.240	0.267	
23095	707.5	1RB	Rear	23.53	24.00	N/A	1.114	0.289	0.322	Plot 20
23095	707.5	1RB	Left	23.53	24.00	N/A	1.114	0.193	0.215	
23095	707.5	1RB	Right	23.53	24.00	N/A	1.114	0.165	0.184	
23095	707.5	1RB	Bottom	23.53	24.00	N/A	1.114	0.124	0.138	
23095	707.5	50%RB	Front	22.59	23.00	N/A	1.099	0.213	0.234	
23095	707.5	50%RB	Rear	22.59	23.00	N/A	1.099	0.254	0.279	
23095	707.5	50%RB	Left	22.59	23.00	N/A	1.099	0.163	0.179	
23095	707.5	50%RB	Right	22.59	23.00	N/A	1.099	0.140	0.154	
23095	707.5	50%RB	Bottom	22.59	23.00	N/A	1.099	0.102	0.112	

SAR Values [LTE Band 17]

Ch.	Freq. (MHz)	Time slots	Test Position	Conduct ed Powe r	Maximu m Allowed	Powe r Drift	Scalin g Factor	SAR1-g results(W/kg)		Graph Results
								Measured	Reporte	

				r (dBm)	Power (dBm)	(%)			d	
measured / reported SAR numbers – Head										
23800	711.0	1RB	Left Cheek	23.48	23.50	N/A	1.005	0.152	0.153	Plot 21
23800	711.0	1RB	Left Tilt	23.48	23.50	N/A	1.005	0.087	0.087	
23800	711.0	1RB	Right Cheek	23.48	23.50	N/A	1.005	0.112	0.113	
23800	711.0	1RB	Right Tilt	23.48	23.50	N/A	1.005	0.071	0.071	
23800	711.0	50%RB	Left Cheek	22.46	22.50	N/A	1.009	0.120	0.121	
23800	711.0	50%RB	Left Tilt	22.46	22.50	N/A	1.009	0.074	0.075	
23800	711.0	50%RB	Right Cheek	22.46	22.50	N/A	1.009	0.101	0.102	
23800	711.0	50%RB	Right Tilt	22.46	22.50	N/A	1.009	0.051	0.051	
measured / reported SAR numbers - Body (hotspot open, distance 10mm)										
23800	711.0	1RB	Front	23.48	23.50	N/A	1.005	0.232	0.233	
23800	711.0	1RB	Rear	23.48	23.50	N/A	1.005	0.289	0.290	Plot 22
23800	711.0	1RB	Left	23.48	23.50	N/A	1.005	0.184	0.185	
23800	711.0	1RB	Right	23.48	23.50	N/A	1.005	0.150	0.151	
23800	711.0	1RB	Bottom	23.48	23.50	N/A	1.005	0.112	0.113	
23800	711.0	50%RB	Front	22.46	22.50	N/A	1.009	0.201	0.203	
23800	711.0	50%RB	Rear	22.46	22.50	N/A	1.009	0.254	0.256	
23800	711.0	50%RB	Left	22.46	22.50	N/A	1.009	0.132	0.133	
23800	711.0	50%RB	Right	22.46	22.50	N/A	1.009	0.102	0.103	
23800	711.0	50%RB	Bottom	22.46	22.50	N/A	1.009	0.087	0.088	

SAR Values [BT]

Ch	Freq. (MHz)	Service	Test Position	Conducted Power (dBm)	Maximum Allowed Power (dBm)	Power Drift (%)	Scaling Factor	SAR1-g results(W/kg)		Graph Results
								Measured	Reported	
measured / reported SAR numbers – Head										
00	2402	GFSK	Left Cheek	3.57	4.00	N/A	1.104	0.114	0.126	Plot 23
00	2402	GFSK	Left Tilt	3.57	4.00	N/A	1.104	0.074	0.082	
00	2402	GFSK	Right Cheek	3.57	4.00	N/A	1.104	0.100	0.110	
00	2402	GFSK	Right Tilt	3.57	4.00	N/A	1.104	0.050	0.055	
measured / reported SAR numbers - Body (hotspot open, distance 10mm)										
00	2402	GFSK	Front	3.57	4.00	N/A	1.104	0.060	0.066	
00	2402	GFSK	Rear	3.57	4.00	N/A	1.104	0.077	0.085	Plot 24
00	2402	GFSK	Left	3.57	4.00	N/A	1.104	0.051	0.056	
00	2402	GFSK	Top	3.57	4.00	N/A	1.104	0.034	0.038	

SAR Values [WIFI2.4G]

Ch	Freq. (MHz)	Service	Test Position	Conducted Power (dBm)	Maximum Allowed Power (dBm)	Power Drift (%)	Scaling Factor	SAR1-g results(W/kg)		Graph Results
								Measured	Reported	
measured / reported SAR numbers – Head										
11	2462	802.11b	Left Cheek	15.24	15.50	N/A	1.062	0.254	0.270	Plot 25
11	2462	802.11b	Left Tilt	15.24	15.50	N/A	1.062	0.184	0.195	
11	2462	802.11b	Right Cheek	15.24	15.50	N/A	1.062	0.210	0.223	
11	2462	802.11b	Right Tilt	15.24	15.50	N/A	1.062	0.132	0.140	
measured / reported SAR numbers - Body (hotspot open, distance 10mm)										
11	2462	802.11b	Front	15.24	15.50	N/A	1.062	0.084	0.089	
11	2462	802.11b	Rear	15.24	15.50	N/A	1.062	0.109	0.116	Plot 26
11	2462	802.11b	Left	15.24	15.50	N/A	1.062	0.070	0.074	
11	2462	802.11b	Top	15.24	15.50	N/A	1.062	0.051	0.054	

SAR Values [WIFI5.1G]

Ch	Freq. (MHz)	Service	Test Position	Conducted Power (dBm)	Maximum Allowed Power (dBm)	Power Drift (%)	Scaling Factor	SAR1-g results(W/kg)		Graph Results
								Measured	Reported	
measured / reported SAR numbers – Head										
48	5240	802.11a	Left Cheek	12.31	12.50	N/A	1.045	0.173	0.181	Plot 27
48	5240	802.11a	Left Tilt	12.31	12.50	N/A	1.045	0.087	0.091	
48	5240	802.11a	Right Cheek	12.31	12.50	N/A	1.045	0.140	0.146	
48	5240	802.11a	Right Tilt	12.31	12.50	N/A	1.045	0.060	0.063	
measured / reported SAR numbers - Body (hotspot open, distance 10mm)										
48	5240	802.11a	Front	12.31	12.50	N/A	1.045	0.212	0.221	
48	5240	802.11a	Rear	12.31	12.50	N/A	1.045	0.292	0.305	Plot 28
48	5240	802.11a	Left	12.31	12.50	N/A	1.045	0.174	0.182	
48	5240	802.11a	Top	12.31	12.50	N/A	1.045	0.140	0.146	

SAR Values [WIFI5.8G]

Ch.	Freq. (MHz)	Service	Test Position	Conducte d Power (dBm)	Maximum Allowed Power (dBm)	Powe r Drift (%)	Scalin g Factor	SAR1-g results(W/kg)		Graph Result s
								Measured	Reported	
measured / reported SAR numbers – Head										
149	5745	802.11a	Left Cheek	10.83	11.00	N/A	1.040	0.206	0.214	Plot 29
149	5745	802.11a	Left Tilt	10.83	11.00	N/A	1.040	0.165	0.172	
149	5745	802.11a	Right Cheek	10.83	11.00	N/A	1.040	0.170	0.177	
149	5745	802.11a	Right Tilt	10.83	11.00	N/A	1.040	0.112	0.116	
measured / reported SAR numbers - Body (hotspot open, distance 10mm)										
149	5745	802.11a	Front	10.83	11.00	N/A	1.040	0.200	0.208	
149	5745	802.11a	Rear	10.83	11.00	N/A	1.040	0.233	0.242	Plot 30
149	5745	802.11a	Left	10.83	11.00	N/A	1.040	0.174	0.181	
149	5745	802.11a	Top	10.83	11.00	N/A	1.040	0.150	0.156	

14.4 Standalone SAR Test Exclusion Considerations and Estimated SAR

Per KDB447498 requires when the standalone SAR test exclusion of section 4.3.1 is applied to an antenna that transmits simultaneously with other antennas, the standalone SAR must be estimated according to the following to determine simultaneous transmission SAR test exclusion;

- (max. power of channel, including tune-up tolerance, mW)/(min. test separation distance, mm)] · [√ f(GHz)/x] W/kg for test separation distances ≤ 50 mm; where x = 7.5 for 1-g SAR, and x = 18.75 for 10-g SAR.
 - 0.4 W/kg for 1-g SAR and 1.0 W/kg for 10-g SAR, when the test separation distances is > 50 mm
- Per FCC KD B447498 D01, simultaneous transmission SAR test exclusion may be applied when the sum of the 1-g SAR for all the transmitting antenna in a specific a physical test configuration is ≤1.6 W/Kg. When the sum is greater than the SAR limit, SAR test exclusion is determined by the SAR to peak location separation ratio.

$$\text{Ratio} = \frac{(\text{SAR}_1 + \text{SAR}_2)^{1.5}}{(\text{peak location separation, mm})} < 0.04$$

Estimated stand alone SAR					
Communication system	Frequency (MHz)	Configuration	Maximum Power (dBm)	Separation Distance (mm)	Estimated SAR1-g (W/kg)
Bluetooth*	2450	Body-worn	N/A	5	N/A

Remark:

1. Bluetooth*- Including Lower power Bluetooth
2. Maximum average power including tune-up tolerance;
3. When the minimum test separation distance is < 5 mm, a distance of 5 mm is applied to determine SAR test exclusion
4. Body as body use distance is 5mm from manufacturer declaration of user manual

14.5 Simultaneous TX SAR Considerations

Simultaneous transmission SAR test exclusion is determined for each operating configuration and exposure condition according to the reported standalone SAR of each applicable simultaneous transmitting antenna. The device has 2 antennas, WWAN main antenna.;

Application Simultaneous Transmission information:

Combination No.	Mode
1	WWAN+WIFI

The maximum value of simultaneous emission is 0.825W/kg.

14.6 SAR Measurement Variability

According to KDB865664, Repeated measurements are required only when the measured SAR is ≥ 0.80 W/kg. If the measured SAR value of the initial repeated measurement is < 1.45 W/kg with ≤ 20% variation, only one repeated measurement is required to reaffirm that the results are not expected to have substantial variations, which may introduce significant compliance concerns. A second repeated measurement is required only if the measured result for the initial repeated measurement is within 10% of the SAR limit and vary by more than 20%, which are often related to device and measurement setup difficulties. The following procedures are applied to determine if repeated measurements are required. The same

procedures should be adapted for measurements according to extremity and occupational exposure limits by applying a factor of 2.5 for extremity exposure and a factor of 5 for occupational exposure to the corresponding SAR thresholds.¹⁹ The repeated measurement results must be clearly identified in the SAR report. All measured SAR, including the repeated results, must be considered to determine compliance and for reporting according to KDB 690783. Repeated measurement is not required when the original highest measured SAR is < 0.80 W/kg; steps 2) through 4) do not apply.

- 1) When the original highest measured SAR is ≥ 0.80 W/kg, repeat that measurement once.
- 2) Perform a second repeated measurement only if the ratio of largest to smallest SAR for the original and first repeated measurements is > 1.20 or when the original or repeated measurement is ≥ 1.45 W/kg (~ 10% from the 1-g SAR limit).
- 3) Perform a third repeated measurement only if the original, first or second repeated measurement is ≥ 1.5 W/kg and the ratio of largest to smallest SAR for the original, first and second repeated measurements is > 1.20 .
- 4) Perform a third repeated measurement only if the original, first or second repeated measurement is ≥ 1.5 W/kg and the ratio of largest to smallest SAR for the original, first and second repeated measurements is > 1.20 .

Frequency Band (MHz)	Air Interface	RF Exposure Configuration	Test Position	Repeated SAR (yes/no)	Highest Measured SAR1-g (W/Kg)	First Repeated	
						Measured SAR1-g (W/Kg)	Largest to Smallest SAR Ratio
750	LTE Band 12	Standalone	Body-Rear	no	0.289	n/a	n/a
	LTE Band 17	Standalone	Body-Rear	no	0.289	n/a	n/a
850	GSM 850	Standalone	Head-Left	no	0.274	n/a	n/a
	WCDMA Band V	Standalone	Body-Rear	no	0.415	n/a	n/a
	LTE Band 5	Standalone	Body-Rear	no	0.257	n/a	n/a
1800	LTE Band 4	Standalone	Head-Left	no	0.464	n/a	n/a
	WCDMA Band IV	Standalone	Head-Left	no	0.499	n/a	n/a
1900	GSM 1900	Standalone	Head-Left	no	0.291	n/a	n/a
	WCDMA Band II	Standalone	Head-Left	no	0.422	n/a	n/a
	LTE Band 2	Standalone	Head-Left	no	0.435	n/a	n/a
2440	BT	Standalone	Head-Left	no	0.114	n/a	n/a
	WIFI2.4G	Standalone	Head-Left	no	0.254	n/a	n/a
2600	LTE Band 7	Standalone	Head-Left	no	0.543	n/a	n/a
5200	WIFI5.1G	Standalone	Body-Rear	no	0.292	n/a	n/a
5800	WIFI5.8G	Standalone	Body-Rear	no	0.233	n/a	n/a

Remark:

1. Second Repeated Measurement is not required since the ratio of the largest to smallest SAR for the original and first repeated measurement is not > 1.20 or 3 (1-g or 10-g respectively)

14.7 General description of test procedures

1. The DUT is tested using CMU 200 communications testers as controller unit to set test channels and maximum output power to the DUT, as well as for measuring the conducted peak power.
2. Test positions as described in the tables above are in accordance with the specified test standard.
3. Tests in body position were performed in that configuration, which generates the highest time based averaged output power (see conducted power results).
4. Tests in head position with GSM were performed in voice mode with 1 timeslot unless GPRS/EGPRS/DTM function allows parallel voice and data traffic on 2 or more timeslots.
5. UMTS was tested in RMC mode with 12.2 kbit/s and TPC bits set to 'all 1'.

6. WiFi was tested in 802.11b/g/n mode with 1 Mbit/s and 6 Mbit/s. According to KDB 248227 the SAR testing for 802.11g/n is not required since When the highest reported SAR for DSSS is adjusted by the ratio of OFDM to DSSS specified maximum output power and the adjusted SAR is ≤ 1.2 W/kg.
7. Required WiFi test channels were selected according to KDB 248227
8. According to FCC KDB pub 248227 D01, When there are multiple test channels with the same measured maximum output power, the channel closest to mid-band frequency is selected for SAR measurement and when there are multiple test channels with the same measured maximum output power and equal separation from mid-band frequency; for example, high and low channels or two mid-band channels, the higher frequency (number) channel is selected for SAR measurement.
9. According to FCC KDB pub 941225 D06 this device has been tested with 10 mm distance to the phantom for operation in WiFi hot spot mode.
10. Per FCC KDB pub 941225 D06 the edges with antennas within 2.5 cm are required to be evaluated for SAR to cover WiFi hot spot function.
11. According to IEEE 1528 the SAR test shall be performed at middle channel. Testing of top and bottom channel is optional.
12. According to KDB 447498 D01 testing of other required channels within the operating mode of a frequency band is not required when the reported 1-g or 10-g SAR for the mid-band or highest output power channel is:
 - ≤ 0.8 W/kg or 2.0 W/kg, for 1-g or 10-g respectively, when the transmission band is ≤ 100 MHz
 - ≤ 0.6 W/kg or 1.5 W/kg, for 1-g or 10-g respectively, when the transmission band is between 100 MHz and 200 MHz
 - ≤ 0.4 W/kg or 1.0 W/kg, for 1-g or 10-g respectively, when the transmission band is ≥ 200 MHz
13. IEEE 1528 require the middle channel to be tested first. This generally applies to wireless devices that are designed to operate in technologies with tight tolerances for maximum output power variations across channels in the band.
14. Per KDB648474 D04 require when the reported SAR for a body-worn accessory, measured without a headset connected to the handset, is < 1.2 W/kg.
15. Per KDB648474 D04 require when the separation distance required for body-worn accessory testing is larger than or equal to that tested for hotspot mode, using the same wireless mode test configuration for voice and data, such as UMTS, LTE and Wi-Fi, and for the same surface of the phone, the hotspot mode SAR data may be used to support body-worn accessory SAR compliance for that particular configuration (surface)
16. 10-g extremity SAR is required only for the surfaces and edges with hotspot mode 1-g SAR > 1.2 W/kg.
17. Per KDB648474 D04 require for phablet SAR test considerations · For Smart phones with a display diagonal dimension > 15.0 cm or an overall diagonal dimension > 16.0 cm, When hotspot mode applies, 10-g extremity SAR is required only for the surfaces and edges with hotspot mode 1-g reported SAR > 1.2 W/kg.
18. 10-g extremity SAR is required only for the surfaces and edges with hotspot mode 1-g SAR > 1.2 W/kg.

15. Test Plots

15.1 System Performance Check

System check at 835 MHz

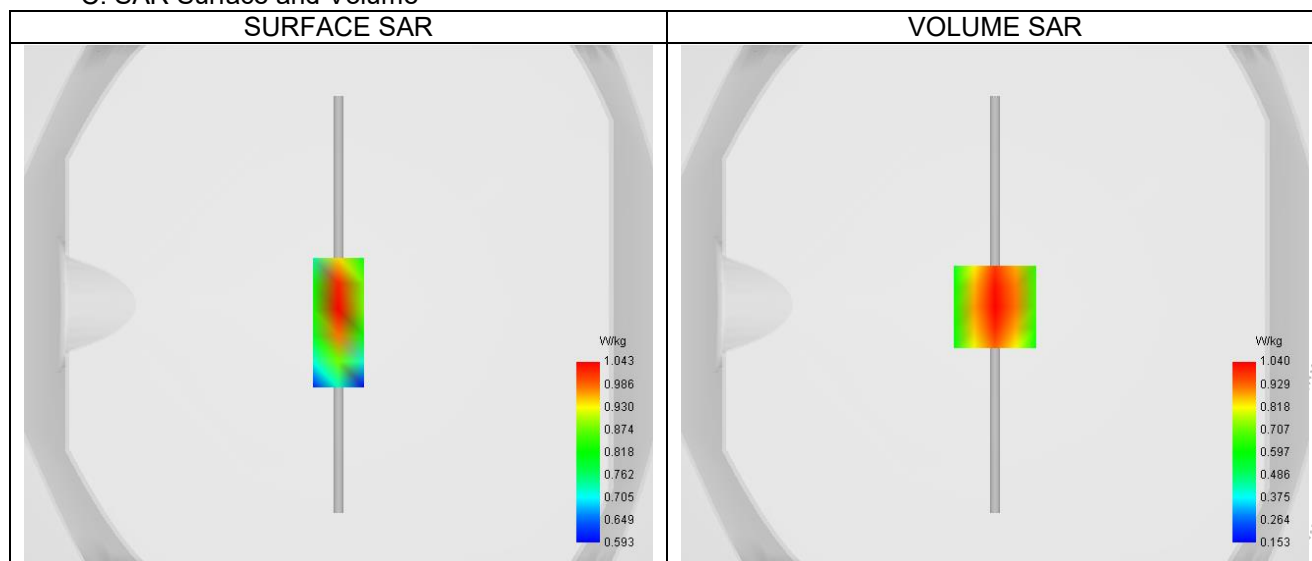
A. Experimental conditions.

Probe	SN EPG0373
ConvF	25.00
Area Scan	dx=10mm dy=10mm, Adaptive 2 max
Zoom Scan	5x5x7, dx=8mm dy=8mm dz=5mm, Very fast
Phantom	Validation plane
Device Position	Dipole
Band	CW835
Channels	Middle
Signal	CW (Crest factor: 1.0)

B. Permittivity

Frequency (MHz)	835.000
Relative permittivity (real part)	40.830
Relative permittivity (imaginary part)	20.910
Conductivity (S/m)	0.970

C. SAR Surface and Volume



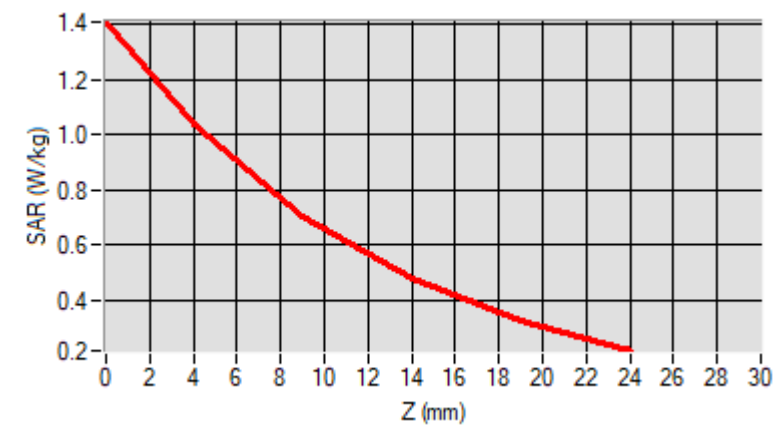
Maximum location: X=0.00, Y=-1.00 ; SAR Peak: 1.41 W/kg

D. SAR 1g & 10g

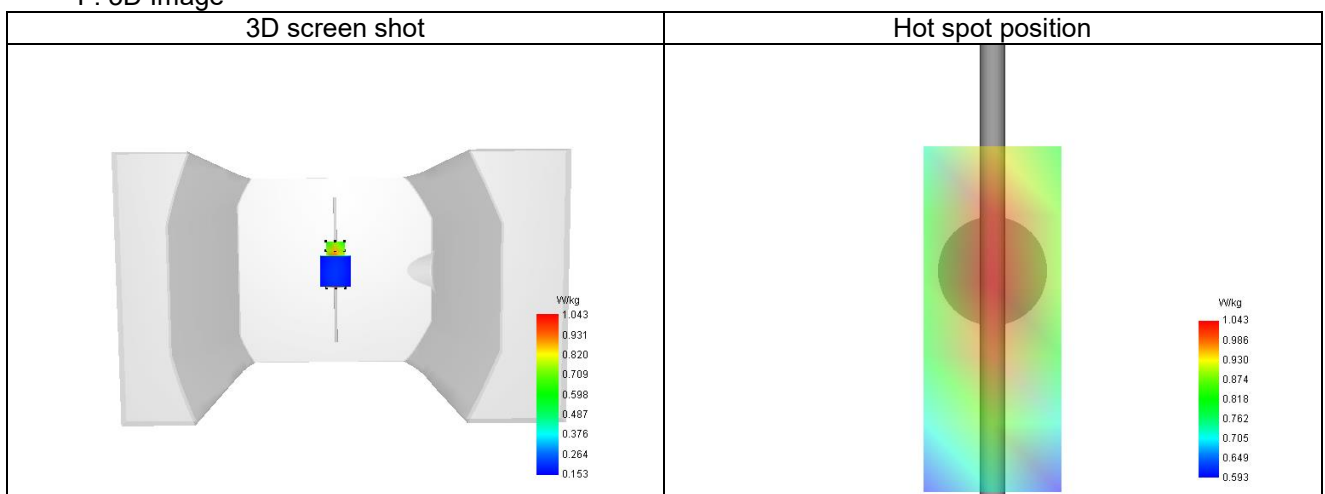
SAR 10g (W/Kg)	0.638
SAR 1g (W/Kg)	0.987
Variation (%)	-0.330
Horizontal validation criteria: minimum distance (mm)	0.000000
Vertical validation criteria: SAR ratio M2/M1 (%)	0.000000

E. Z Axis Scan

Z (mm)	0.00	4.00	9.00	14.00	19.00
SAR (W/Kg)	1.411	1.040	0.704	0.477	0.325



F. 3D Image



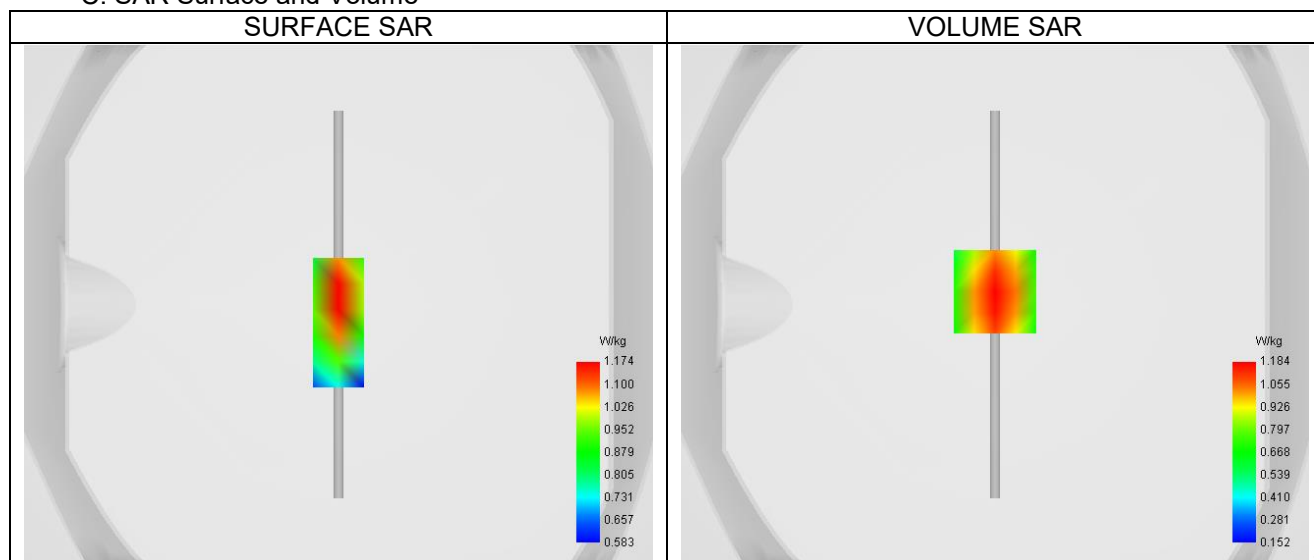
A. Experimental conditions.

Probe	SN EPG0373
ConvF	23.97
Area Scan	dx=10mm dy=10mm, Adaptive 2 max
Zoom Scan	5x5x7, dx=8mm dy=8mm dz=5mm, Very fast
Phantom	Validation plane
Device Position	Dipole
Band	CW900
Channels	Middle
Signal	CW (Crest factor: 1.0)

B. Permittivity

Frequency (MHz)	900.000
Relative permittivity (real part)	40.900
Relative permittivity (imaginary part)	21.000
Conductivity (S/m)	1.050

C. SAR Surface and Volume

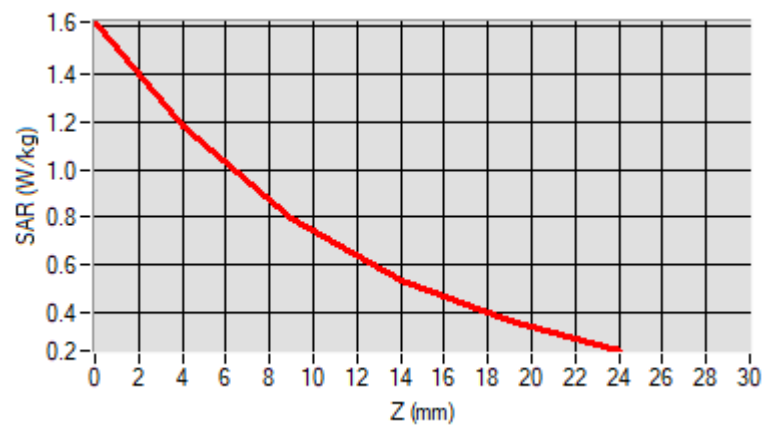


D. SAR 1g & 10g

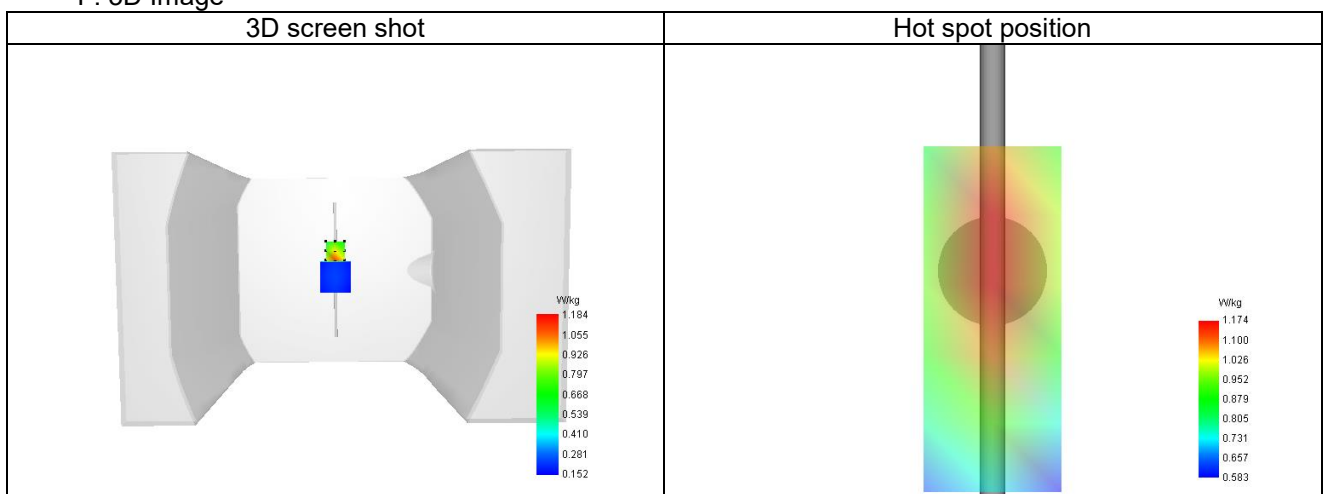
SAR 10g (W/Kg)	0.719
SAR 1g (W/Kg)	1.124
Variation (%)	-0.360
Horizontal validation criteria: minimum distance (mm)	0.000000
Vertical validation criteria: SAR ratio M2/M1 (%)	0.000000

E. Z Axis Scan

Z (mm)	0.00	4.00	9.00	14.00	19.00
SAR (W/Kg)	1.616	1.184	0.796	0.537	0.366



F. 3D Image



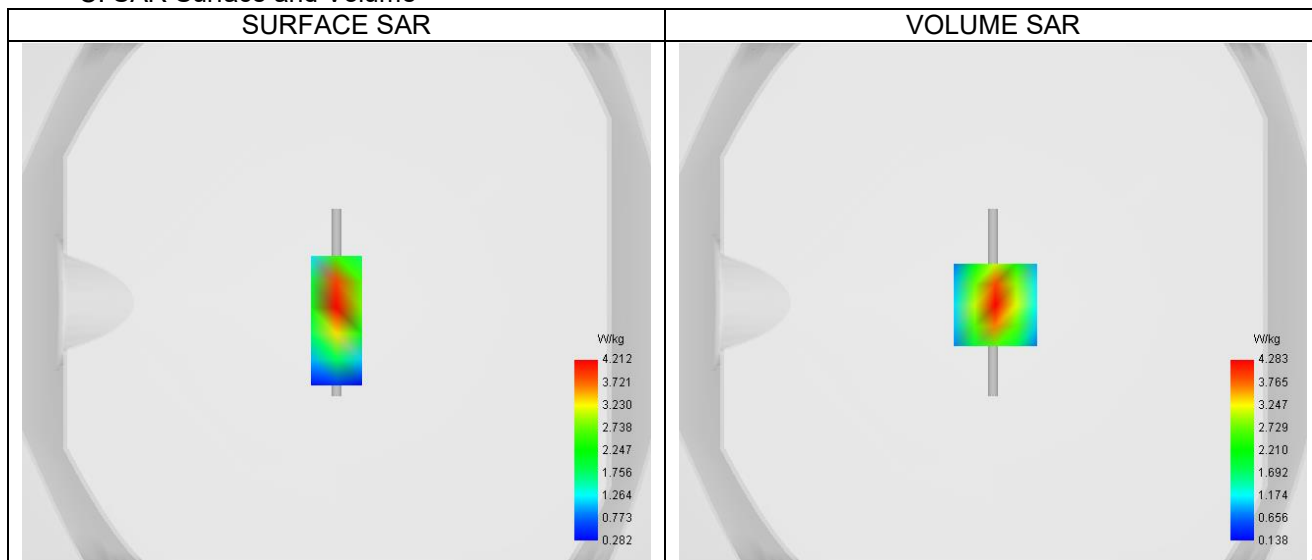
A. Experimental conditions.

Probe	SN EPG0373
ConvF	24.68
Area Scan	dx=10mm dy=10mm, Adaptive 2 max
Zoom Scan	5x5x7, dx=8mm dy=8mm dz=5mm, Very fast
Phantom	Validation plane
Device Position	Dipole
Band	CW1800
Channels	Middle
Signal	CW (Crest factor: 1.0)

B. Permittivity

Frequency (MHz)	1800.000
Relative permittivity (real part)	39.200
Relative permittivity (imaginary part)	15.200
Conductivity (S/m)	1.520

C. SAR Surface and Volume

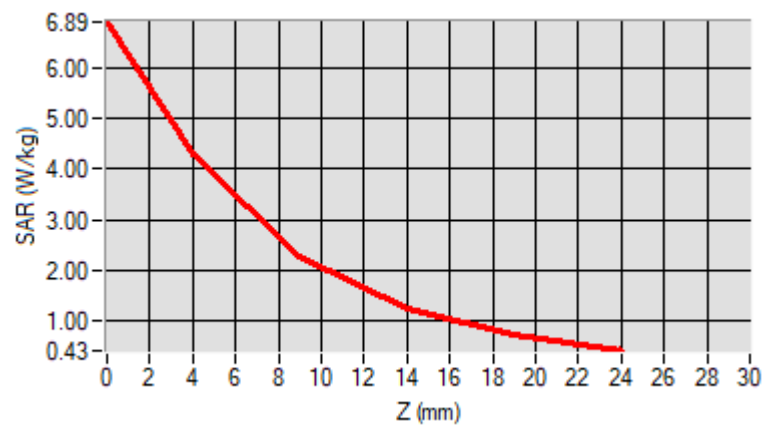


D. SAR 1g & 10g

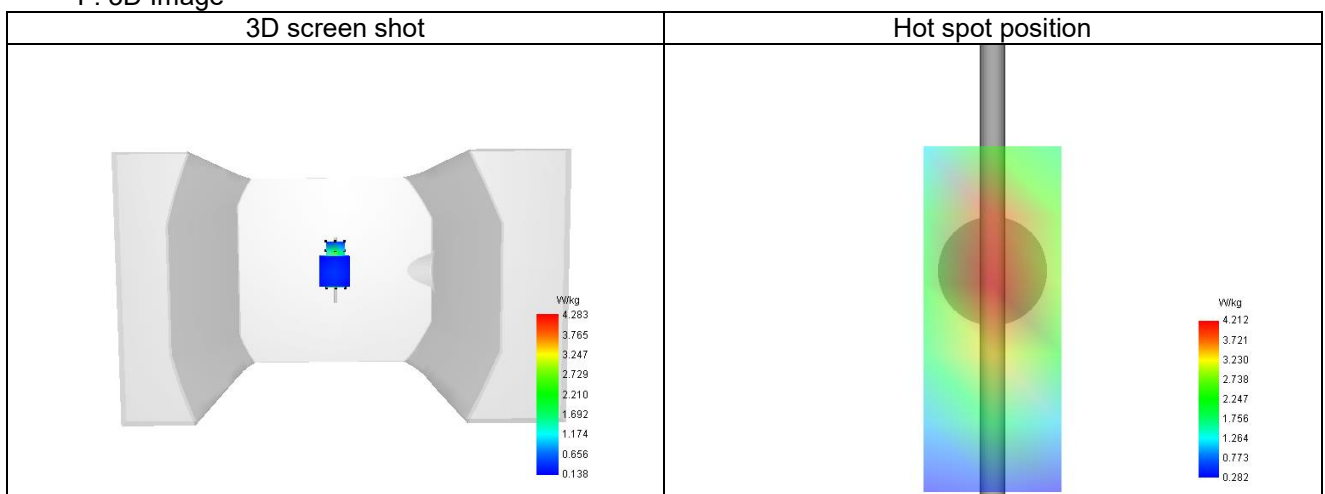
SAR 10g (W/Kg)	1.995
SAR 1g (W/Kg)	3.940
Variation (%)	0.070
Horizontal validation criteria: minimum distance (mm)	0.000000
Vertical validation criteria: SAR ratio M2/M1 (%)	0.000000

E. Z Axis Scan

Z (mm)	0.00	4.00	9.00	14.00	19.00
SAR (W/Kg)	6.889	4.283	2.298	1.249	0.726



F. 3D Image



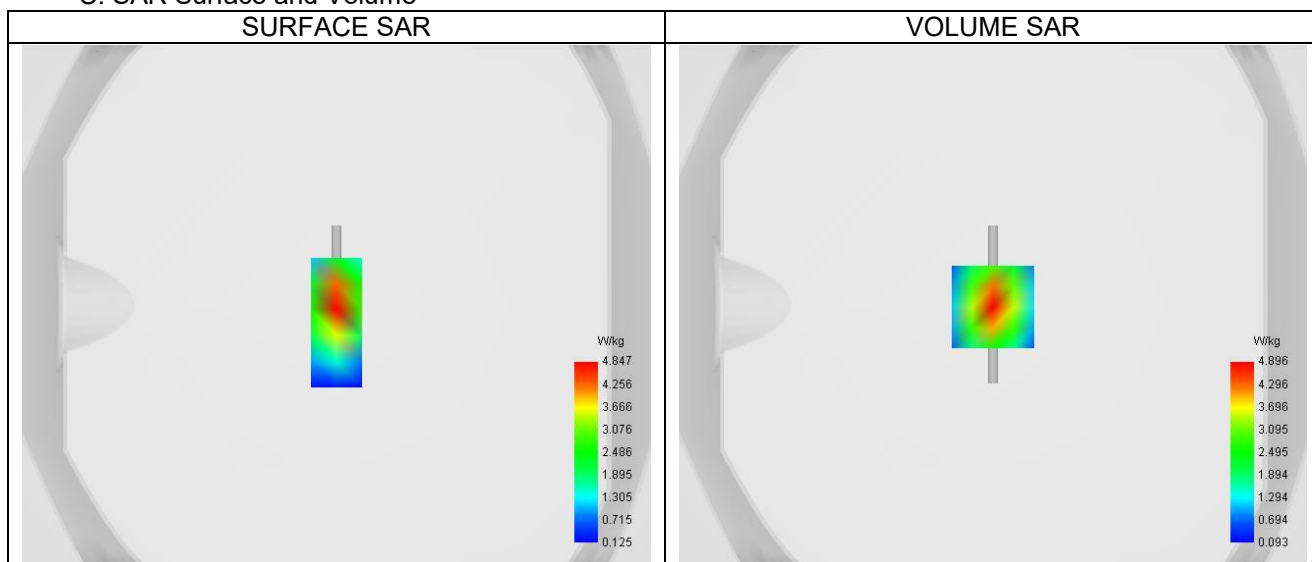
A. Experimental conditions.

Probe	SN EPG0373
ConvF	26.52
Area Scan	dx=10mm dy=10mm, Adaptive 2 max
Zoom Scan	5x5x7, dx=8mm dy=8mm dz=5mm, Very fast
Phantom	Validation plane
Device Position	Dipole
Band	CW2100
Channels	Middle
Signal	CW (Crest factor: 1.0)

B. Permittivity

Frequency (MHz)	2100.000
Relative permittivity (real part)	38.521
Relative permittivity (imaginary part)	13.824
Conductivity (S/m)	1.613

C. SAR Surface and Volume

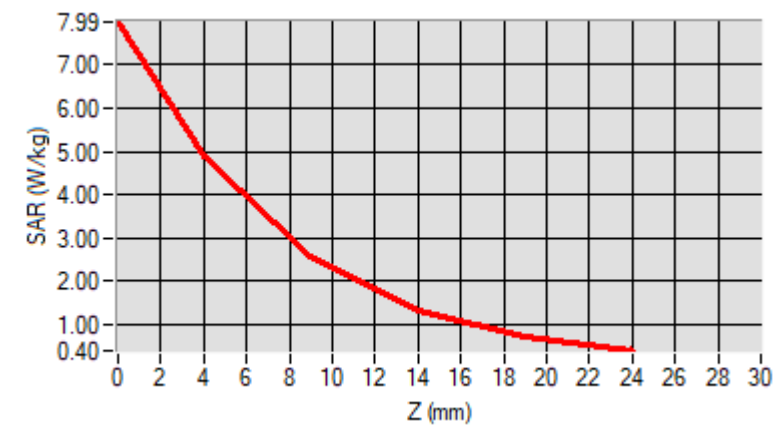


D. SAR 1g & 10g

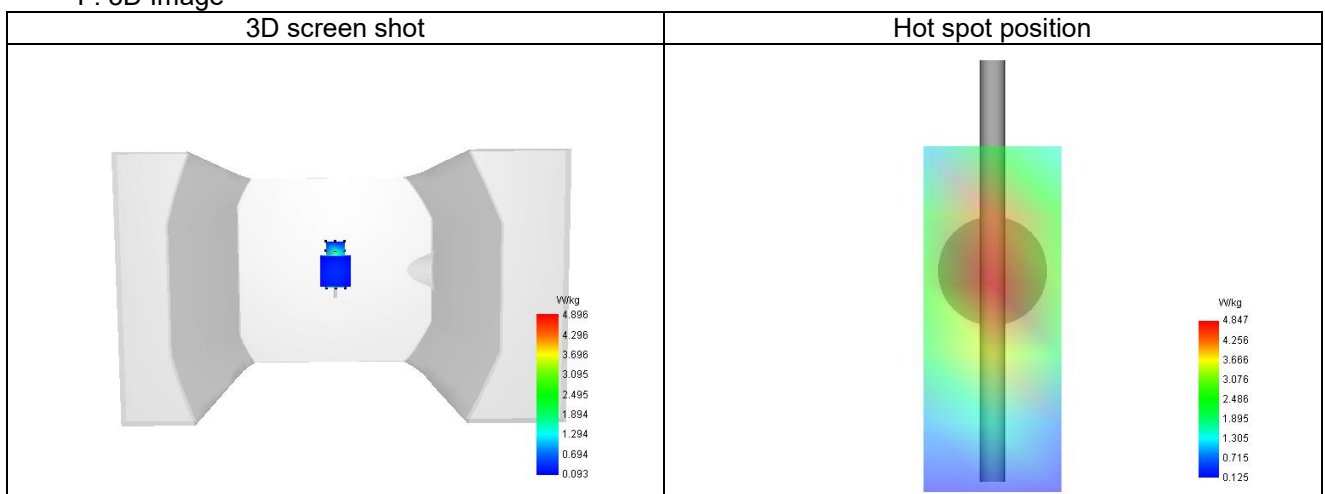
SAR 10g (W/Kg)	2.155
SAR 1g (W/Kg)	4.458
Variation (%)	0.100
Horizontal validation criteria: minimum distance (mm)	0.000000
Vertical validation criteria: SAR ratio M2/M1 (%)	0.000000

E. Z Axis Scan

Z (mm)	0.00	4.00	9.00	14.00	19.00
SAR (W/Kg)	7.987	4.896	2.558	1.335	0.733



F. 3D Image



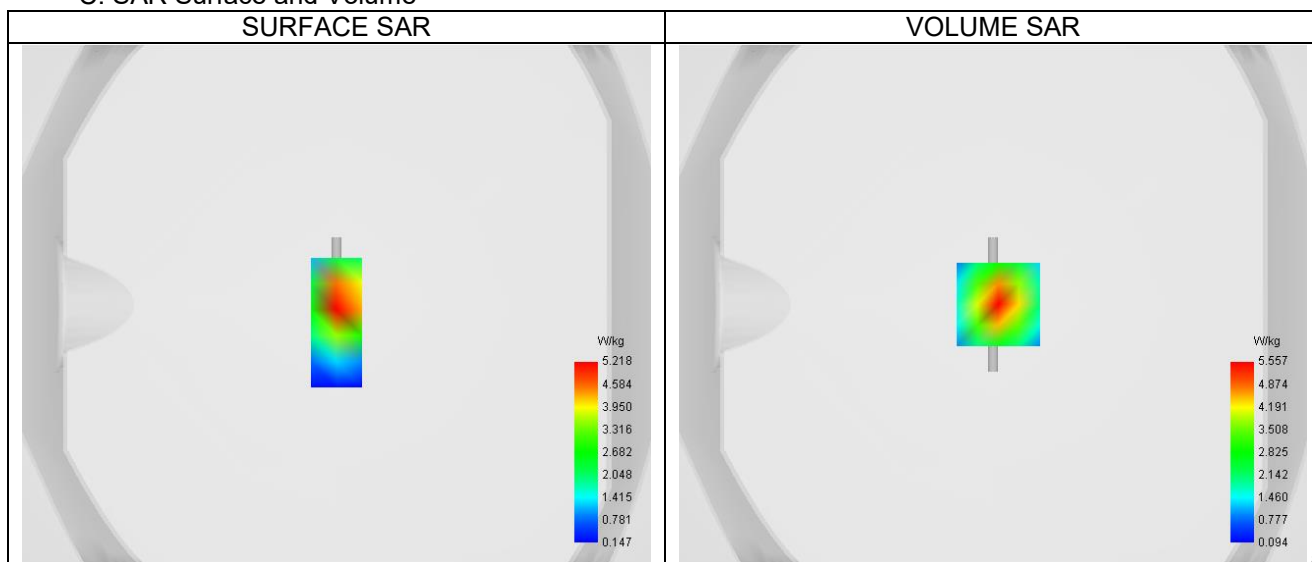
A. Experimental conditions.

Probe	SN EPG0373
ConvF	26.43
Area Scan	dx=10mm dy=10mm, Adaptive 2 max
Zoom Scan	5x5x7, dx=8mm dy=8mm dz=5mm, Very fast
Phantom	Validation plane
Device Position	Dipole
Band	CW2450
Channels	Middle
Signal	CW (Crest factor: 1.0)

B. Permittivity

Frequency (MHz)	2450.000
Relative permittivity (real part)	38.600
Relative permittivity (imaginary part)	14.330
Conductivity (S/m)	1.950

C. SAR Surface and Volume



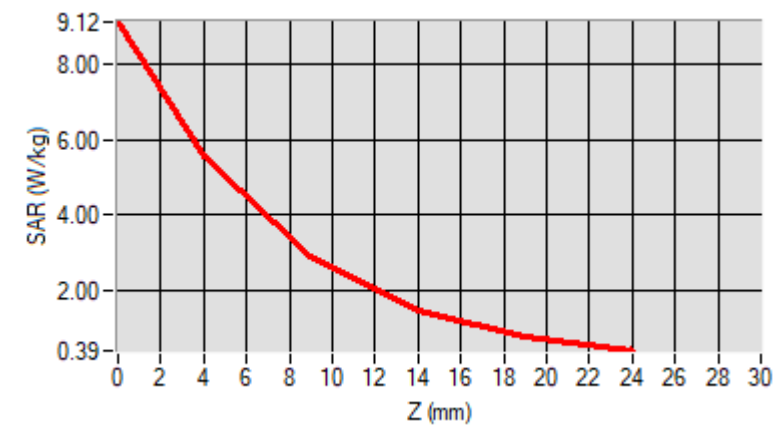
Maximum location: X=2.00, Y=0.00 ; SAR Peak: 9.11 W/kg

D. SAR 1g & 10g

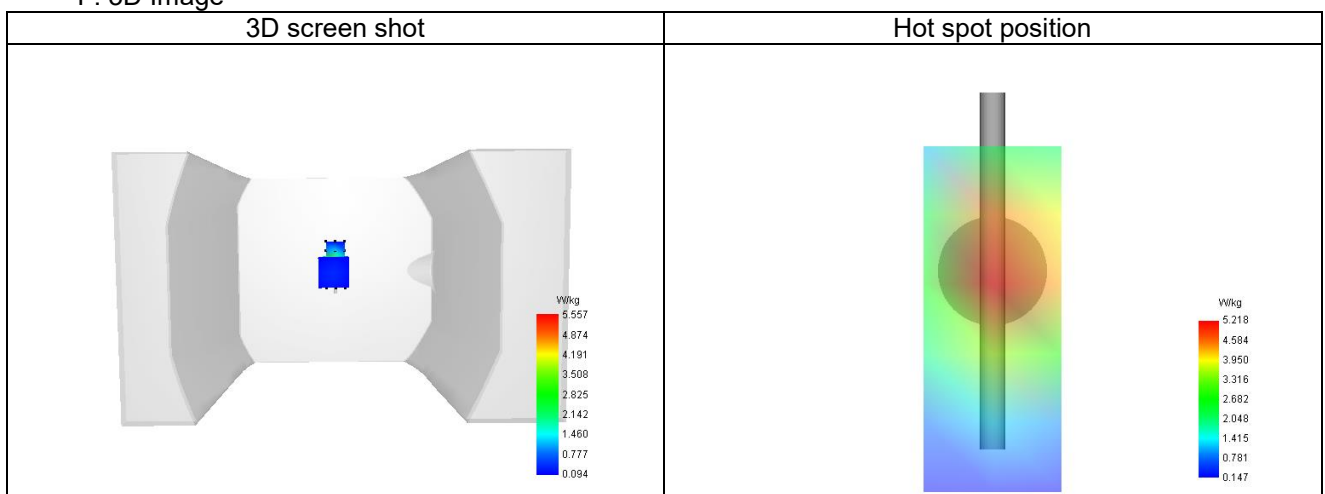
SAR 10g (W/Kg)	2.457
SAR 1g (W/Kg)	5.085
Variation (%)	0.360
Horizontal validation criteria: minimum distance (mm)	0.000000
Vertical validation criteria: SAR ratio M2/M1 (%)	0.000000

E. Z Axis Scan

Z (mm)	0.00	4.00	9.00	14.00	19.00
SAR (W/Kg)	9.121	5.557	2.866	1.459	0.770



F. 3D Image



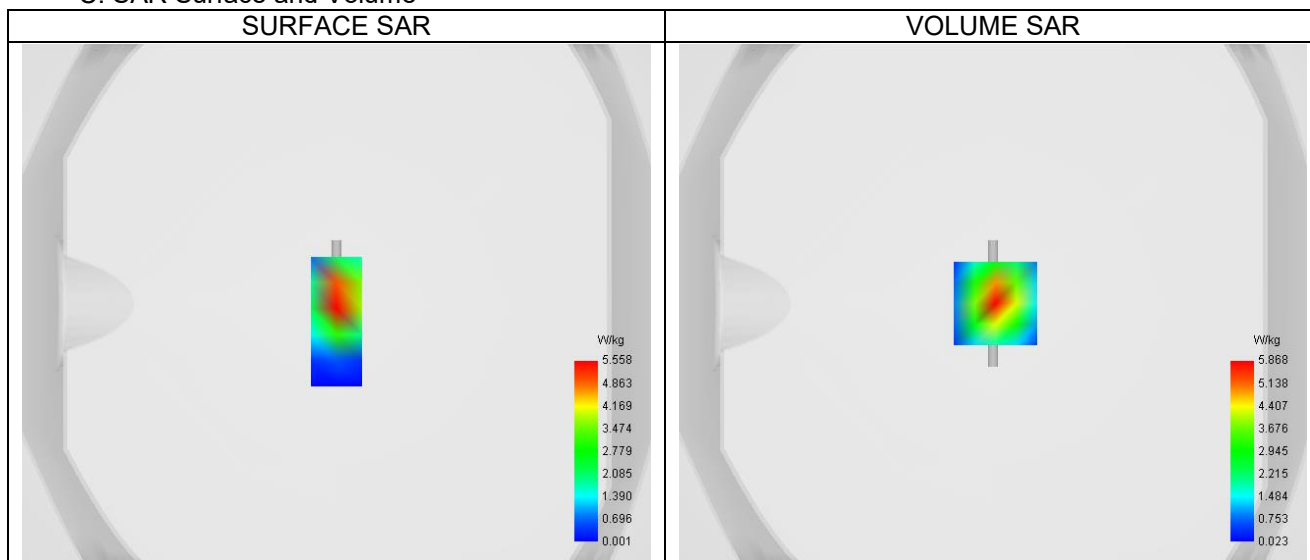
A. Experimental conditions.

Probe	SN EPGO373
ConvF	27.77
Area Scan	dx=10mm dy=10mm, Adaptive 2 max
Zoom Scan	5x5x7, dx=8mm dy=8mm dz=5mm, Very fast
Phantom	Validation plane
Device Position	Dipole
Band	CW2600
Channels	Middle
Signal	CW (Crest factor: 1.0)

B. Permittivity

Frequency (MHz)	2600.000
Relative permittivity (real part)	52.509
Relative permittivity (imaginary part)	14.889
Conductivity (S/m)	2.151

C. SAR Surface and Volume



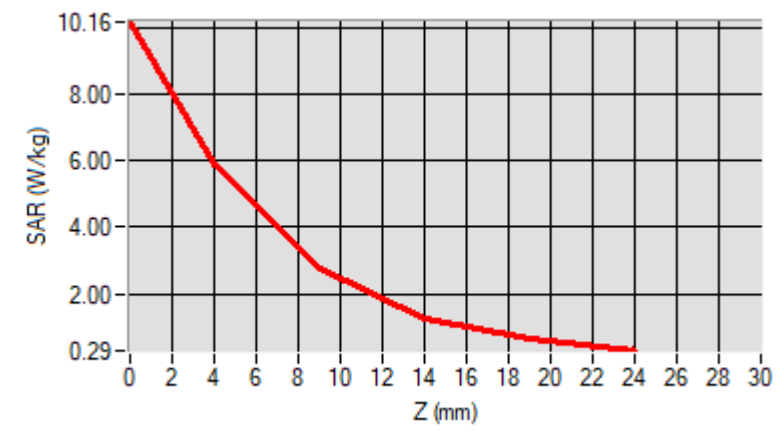
Maximum location: X=1.00, Y=0.00 ; SAR Peak: 10.19 W/kg

D. SAR 1g & 10g

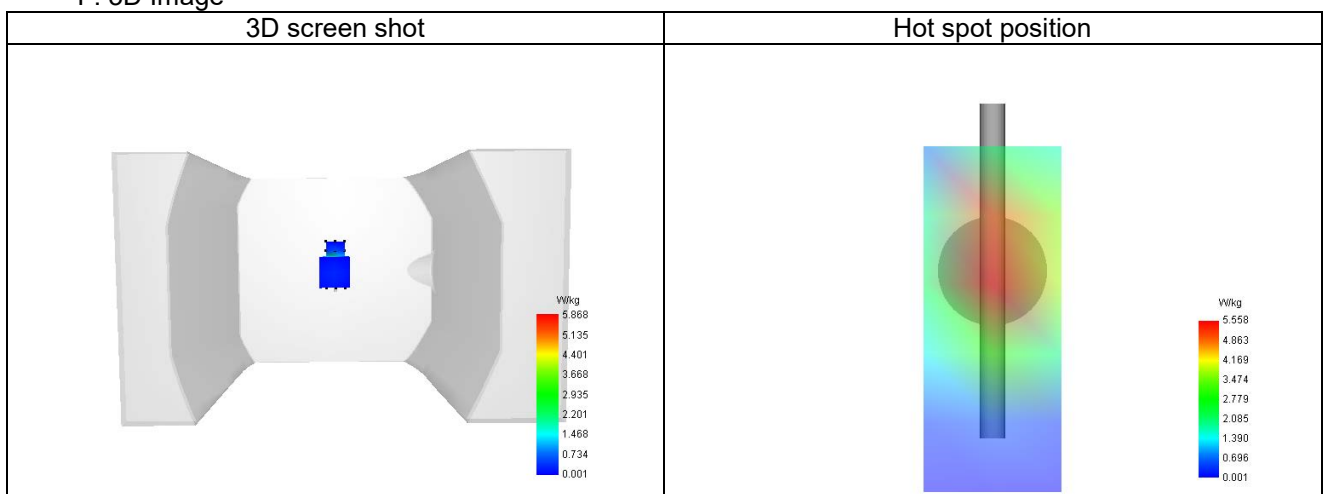
SAR 10g (W/Kg)	2.337
SAR 1g (W/Kg)	5.302
Variation (%)	0.230
Horizontal validation criteria: minimum distance (mm)	0.000000
Vertical validation criteria: SAR ratio M2/M1 (%)	0.000000

E. Z Axis Scan

Z (mm)	0.00	4.00	9.00	14.00	19.00
SAR (W/Kg)	10.164	5.868	2.777	1.281	0.618



F. 3D Image



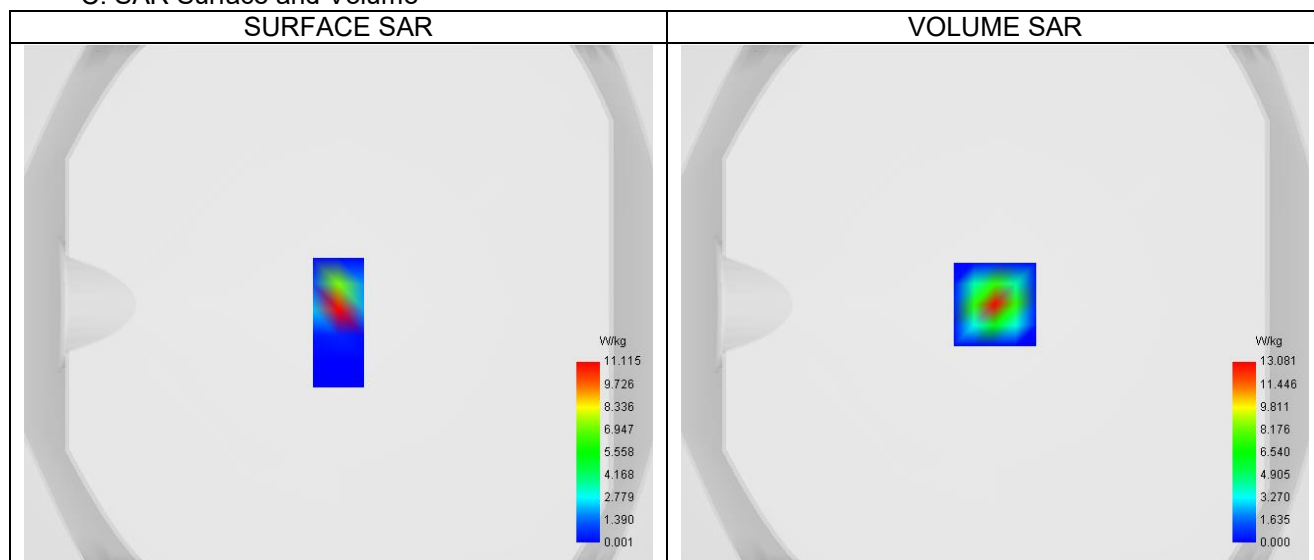
A. Experimental conditions.

Probe	SN EPG0373
ConvF	21.98
Area Scan	dx=10mm dy=10mm, Adaptive 2 max
Zoom Scan	5x5x7, dx=8mm dy=8mm dz=5mm, Very fast
Phantom	Validation plane
Device Position	Dipole
Band	CW5200
Channels	Middle
Signal	CW (Crest factor: 1.0)

B. Permittivity

Frequency (MHz)	5200.000
Relative permittivity (real part)	49.014
Relative permittivity (imaginary part)	18.140
Conductivity (S/m)	5.240

C. SAR Surface and Volume



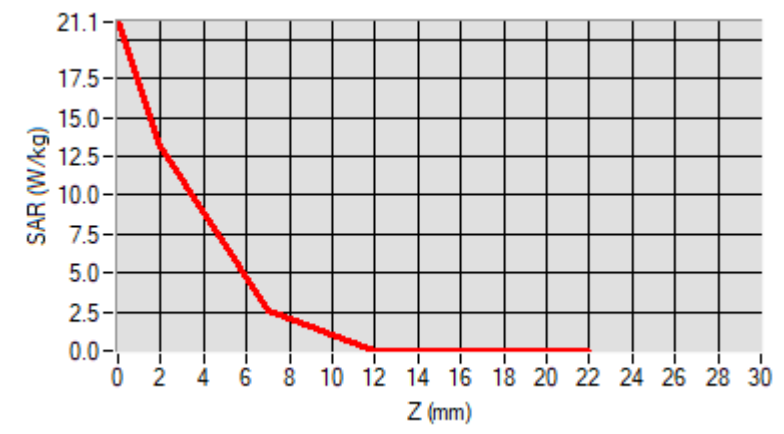
Maximum location: X=0.00, Y=0.00 ; SAR Peak: 22.28 W/kg

D. SAR 1g & 10g

SAR 10g (W/Kg)	2.041
SAR 1g (W/Kg)	6.817
Variation (%)	0.430
Horizontal validation criteria: minimum distance (mm)	0.000000
Vertical validation criteria: SAR ratio M2/M1 (%)	0.000000

E. Z Axis Scan

Z (mm)	0.00	2.00	7.00	12.00	17.00
SAR (W/Kg)	21.117	13.081	2.622	0.000	0.003



F. 3D Image

