Table 14-7 WCDMA850-BV #1Head

WCDMA850-BV #1Head								
Ambient Temperature: 22.5						Liquid Temperature: 22.3		
Mode	Device orientation	SAR measurement	Measured SAR [W/kg]			Reported SAR [W/kg]		
			CH4233 846.6 MHz	CH4182 835.4 MHz	CH4132 826.4 MHz	CH4233 846.6 MHz	CH4182 835.4 MHz	CH4132 826.4 MHz
RMC	Tune-up		24.50	24.50	24.50	Scaling factor*		
	Slot Average Power [dBm]		23.48	23.54	23.49	1.26	1.25	1.26
	Left Cheek	1g SAR	0.245	0.252	0.217	0.31	0.31	0.27
		10g SAR	0.189	0.193	0.168	0.24	0.24	0.21
		Deviation	0.06	0.19	0.02	0.06	0.19	0.02
	Left Tilt	1g SAR		0.188			0.23	
		10g SAR		0.144			0.18	
		Deviation		-0.01			-0.01	
	Right Cheek	1g SAR		0.25			0.31	
		10g SAR		0.186			0.23	
		Deviation		-0.14			-0.14	
	Right Tilt	1g SAR		0.14			0.17	
		10g SAR		0.107			0.13	
		Deviation		0.08			0.08	
RMC B1	*Left Cheek*	1g SAR		0.245			0.31	
		10g SAR		0.186			0.23	
		Deviation		0.05			0.05	

Table 14-8 WCDMA850-BV #1Body

WCDMA850-BV #1Body								
Ambient Temperature: 22.5						Liquid Temperature: 22.3		
Mode	Device orientation	SAR measurement	Measured SAR [W/kg]			Reported SAR [W/kg]		
			CH4233 846.6 MHz	CH4182 835.4 MHz	CH4132 826.4 MHz	CH4233 846.6 MHz	CH4182 835.4 MHz	CH4132 826.4 MHz
RMC	Tune-up		24.50	24.50	24.50	Scaling factor*		
	Slot Average Power [dBm]		23.48	23.54	23.49	1.26	1.25	1.26
	Front	1g SAR		0.281			0.35	
		10g SAR		0.219			0.27	
		Deviation		0.04			0.04	
	Rear	1g SAR	0.393	0.385	0.363	0.50	0.48	0.46
		10g SAR	0.303	0.297	0.281	0.38	0.37	0.35
		Deviation	-0.03	0.09	-0.03	-0.03	0.09	-0.03
	Left edge	1g SAR		0.167			0.21	
		10g SAR		0.115			0.14	
		Deviation		-0.06			-0.06	
	Right edge	1g SAR		0.322			0.40	
		10g SAR		0.223			0.28	
		Deviation		-0.01			-0.01	
	Bottom edge	1g SAR		0.059			0.07	
		10g SAR		0.037			0.05	
		Deviation		0.07			0.07	
RMC B1	*Rear*	1g SAR	0.382			0.48		
		10g SAR	0.291			0.37		
		Deviation	0.04			0.04		

Table 14-9 LTE1900-FDD2 #1 Head

LTE1900-FDD2 #1 Head								
Ambient Temperature: 22.5						Liquid Temperature: 22.3		
Mode	Device orientation	SAR measurement	Measured SAR [W/kg]			Reported SAR [W/kg]		
			19100	18900	18700	19100	18900	18700
			H	L	L	H	L	L
20MHz QPSK1RB	Tune-up		24.00	24.00	24.00	Scaling factor*		
	Measured Power [dBm]		23.20	23.15	23.17	1.20	1.22	1.21
	Left Cheek	1g SAR	0.337			0.41		
		10g SAR	0.216			0.26		
		Deviation	0.03			0.03		
	Left Tilt	1g SAR	0.159			0.19		
		10g SAR	0.101			0.12		
		Deviation	0.01			0.01		
	Right Cheek	1g SAR	0.275			0.33		
		10g SAR	0.181			0.22		
		Deviation	0.09			0.09		
	Right Tilt	1g SAR	0.093			0.11		
		10g SAR	0.061			0.07		
		Deviation	-0.01			-0.01		
TRUE	Device orientation	SAR measurement	Measured SAR [W/kg]			Reported SAR [W/kg]		
			19100	18900	18700	19100	18900	18700
			L	L	L	L	L	L
20MHz QPSK50% RB	Tune-up		23.00	23.00	23.00	Scaling factor*		
	Measured Power [dBm]		22.30	22.17	22.07	1.17	1.21	1.24
	Left Cheek	1g SAR	0.27			0.32		
		10g SAR	0.173			0.20		
		Deviation	0.12			0.12		
	Left Tilt	1g SAR	0.217			0.25		
		10g SAR	0.14			0.16		
		Deviation	0.05			0.05		
	Right Cheek	1g SAR	0.228			0.27		
		10g SAR	0.15			0.18		
		Deviation	-0.09			-0.09		
	Right Tilt	1g SAR	0.085			0.10		
		10g SAR	0.057			0.07		
		Deviation	-0.12			-0.12		
Mode	Device orientation	SAR measurement	Measured SAR [W/kg]			Reported SAR [W/kg]		
			19100	18900	18700	19100	18900	18700
20MHz QPSK100% RB	Tune-up		23.00	23.00	23.00	Scaling factor*		
	Measured Power [dBm]		22.12	22.15	21.98	1.23	1.22	1.26
	Left Cheek	1g SAR						
		10g SAR						
		Deviation						
20MHz QPSK1RB B1	Left Cheek	1g SAR	0.309			0.37		
		10g SAR	0.203			0.24		
		Deviation	0.07			0.07		

Table 14-10 LTE1900-FDD2 #1 Body

LTE1900-FDD2 #1 Body								
Ambient Temperature: 22.5					Liquid Temperature: 22.3			
Mode	Device orientation	SAR measurement	Measured SAR [W/kg]			Reported SAR [W/kg]		
			19100	18900	18700	19100	18900	18700
			H	L	L	H	L	L
20MHz QPSK1RB	Tune-up		24.00	24.00	24.00	Scaling factor*		
	Measured Power [dBm]		23.20	23.15	23.17	1.20	1.22	1.21
	Front	1g SAR	0.593			0.71		
		10g SAR	0.352			0.42		
		Deviation	0.08			0.08		
	Rear	1g SAR	0.766	0.753	0.741	0.92	0.92	0.90
		10g SAR	0.389	0.374	0.312	0.47	0.46	0.38
		Deviation	-0.05	-0.02	0.08	-0.05	-0.02	0.08
	Left edge	1g SAR	0.207			0.25		
		10g SAR	0.128			0.15		
		Deviation	-0.02			-0.02		
	Right edge	1g SAR	0.293			0.35		
		10g SAR	0.173			0.21		
		Deviation	0.06			0.06		
	Bottom edge	1g SAR	0.631			0.76		
		10g SAR	0.367			0.44		
		Deviation	-0.06			-0.06		
Mode	Device orientation	SAR measurement	Measured SAR [W/kg]			Reported SAR [W/kg]		
			19100	18900	18700	19100	18900	18700
			L	L	L			
20MHz QPSK50% RB	Tune-up		23.00	23.00	23.00	Scaling factor*		
	Measured Power [dBm]		22.30	22.17	22.07	1.17	1.21	1.24
	Front	1g SAR	0.481			0.57		
		10g SAR	0.282			0.33		
		Deviation	-0.02			-0.02		
	Rear	1g SAR	0.664			0.78		
		10g SAR	0.341			0.40		
		Deviation	0.19			0.19		
	Left edge	1g SAR	0.158			0.19		
		10g SAR	0.097			0.11		
		Deviation	0.04			0.04		
	Right edge	1g SAR	0.249			0.29		
		10g SAR	0.147			0.17		
		Deviation	0.07			0.07		
	Bottom edge	1g SAR	0.627			0.74		
		10g SAR	0.352			0.41		
		Deviation	0.19			0.19		
Mode	Device orientation	SAR measurement	Measured SAR [W/kg]			Reported SAR [W/kg]		
			19100	18900	18700	19100	18900	18700
20MHz QPSK100% RB	Tune-up		23.00	23.00	23.00	Scaling factor*		
	Measured Power [dBm]		22.12	22.15	21.98	1.23	1.22	1.26
	Front	1g SAR		0.741			0.90	
		10g SAR		0.357			0.43	
		Deviation		0.02			0.02	
20MHz QPSK1RB B1	*Rear*	1g SAR	0.761			0.91		
		10g SAR	0.382			0.46		
		Deviation	-0.08			-0.08		

Table 14-11 LTE1700-FDD4 #1 Head

LTE1700-FDD4 #1 Head								
Ambient Temperature: 22.5					Liquid Temperature: 22.3			
Mode	Device orientation	SAR measurement	Measured SAR [W/kg]			Reported SAR [W/kg]		
			20300	20175	20050	20300	20175	20050
			H	H	L	H	H	L
20MHz QPSK1RB	Tune-up		23.50	23.50	23.50	Scaling factor*		
	Measured Power [dBm]		22.71	22.70	22.72	1.20	1.20	1.20
	Left Cheek	1g SAR			0.08			0.10
		10g SAR			0.057			0.07
		Deviation			0.01			0.01
	Left Tilt	1g SAR			0.058			0.07
		10g SAR			0.037			0.04
		Deviation			0.06			0.06
	Right Cheek	1g SAR			0.117			0.14
		10g SAR			0.078			0.09
		Deviation			-0.03			-0.03
	Right Tilt	1g SAR			0.037			0.04
		10g SAR			0.026			0.03
		Deviation			-0.09			-0.09
FALSE	Device orientation	SAR measurement	Measured SAR [W/kg]			Reported SAR [W/kg]		
			20300	20175	20050	20300	20175	20050
			L	L	H	L	L	H
20MHz QPSK50% RB	Tune-up		22.50	22.50	22.50	Scaling factor*		
	Measured Power [dBm]		21.77	21.62	21.68	1.18	1.23	1.21
	Left Cheek	1g SAR	0.064			0.08		
		10g SAR	0.047			0.06		
		Deviation	0.1			0.10		
	Left Tilt	1g SAR	0.046			0.05		
		10g SAR	0.031			0.04		
		Deviation	0.05			0.05		
	Right Cheek	1g SAR	0.123			0.15		
		10g SAR	0.082			0.10		
		Deviation	0.04			0.04		
	Right Tilt	1g SAR	0.045			0.05		
		10g SAR	0.031			0.04		
		Deviation	0.03			0.03		
Mode	Device orientation	SAR measurement	Measured SAR [W/kg]			Reported SAR [W/kg]		
			20300	20175	20050	20300	20175	20050
20MHz QPSK100% RB	Tune-up		22.50	22.50	22.50	Scaling factor*		
	Measured Power [dBm]		21.67	21.56	21.63	1.21	1.24	1.22
	Left Cheek	1g SAR						
		10g SAR						
		Deviation						
20MHz QPSK50% RB B1	Right Cheek	1g SAR	0.118			0.14		
		10g SAR	0.076			0.09		
		Deviation	0.04			0.04		

Table 14-12 LTE1700-FDD4 #1 Body

LTE1700-FDD4 #1 Body								
Ambient Temperature: 22.5					Liquid Temperature: 22.3			
Mode	Device orientation	SAR measurement	Measured SAR [W/kg]			Reported SAR [W/kg]		
			20300	20175	20050	20300	20175	20050
			H	H	L	H	H	L
20MHz QPSK1RB	Tune-up		23.50	23.50	23.50	Scaling factor*		
	Measured Power [dBm]		22.71	22.70	22.72	1.20	1.20	1.20
	Front	1g SAR			0.6			0.72
		10g SAR			0.333			0.40
		Deviation			0.06			0.06
	Rear	1g SAR	0.985	0.976	0.979	1.18	1.17	1.17
		10g SAR	0.521	0.515	0.519	0.62	0.62	0.62
		Deviation	-0.02	-0.07	0.1	-0.02	-0.07	0.10
	Left edge	1g SAR			0.05			0.06
		10g SAR			0.03			0.04
		Deviation			0.06			0.06
	Right edge	1g SAR			0.11			0.13
		10g SAR			0.067			0.08
		Deviation			0.04			0.04
	Bottom edge	1g SAR	1.05	0.997	1.02	1.26	1.20	1.22
		10g SAR	0.566	0.556	0.56	0.68	0.67	0.67
		Deviation	0.14	-0.09	-0.01	0.14	-0.09	-0.01
Mode	Device orientation	SAR measurement	Measured SAR [W/kg]			Reported SAR [W/kg]		
			20300	20175	20050	20300	20175	20050
			L	L	H			
20MHz QPSK50% RB	Tune-up		22.50	22.50	22.50	Scaling factor*		
	Measured Power [dBm]		21.77	21.62	21.68	1.18	1.23	1.21
	Front	1g SAR	0.459			0.54		
		10g SAR	0.255			0.30		
		Deviation	-0.16			-0.16		
	Rear	1g SAR	0.749	0.823	0.703	0.89	1.01	0.85
		10g SAR	0.387	0.43	0.369	0.46	0.53	0.45
		Deviation	0.04	0.03	-0.08	0.04	0.03	-0.08
	Left edge	1g SAR	0.044			0.05		
		10g SAR	0.027			0.03		
		Deviation	-0.04			-0.04		
	Right edge	1g SAR	0.097			0.11		
		10g SAR	0.059			0.07		
		Deviation	-0.06			-0.06		
	Bottom edge	1g SAR	0.741	0.882	0.747	0.88	1.08	0.90
		10g SAR	0.397	0.479	0.406	0.47	0.59	0.49
		Deviation	-0.01	0.03	0.14	-0.01	0.03	0.14
Mode	Device orientation	SAR measurement	Measured SAR [W/kg]			Reported SAR [W/kg]		
			20300	20175	20050	20300	20175	20050
20MHz QPSK100% RB	Tune-up		22.50	22.50	22.50	Scaling factor*		
	Measured Power [dBm]		21.67	21.56	21.63	1.21	1.24	1.22
	Rear	1g SAR	0.904			1.09		
		10g SAR	0.467			0.57		
		Deviation	-0.06			-0.06		
20MHz QPSK100% RB	*Bottom edge*	1g SAR	0.923			1.11		
		10g SAR	0.483			0.58		
		Deviation	-0.08			-0.08		
20MHz QPSK1RB B1	*Bottom edge*	1g SAR	0.993			1.19		
		10g SAR	0.546			0.65		
		Deviation	0.02			0.02		
0mm	*Bottom edge*	1g SAR	3.74			4.48		
		10g SAR	1.57			1.88		
		Deviation	0.06			0.06		

Table 14-13 LTE850-FDD5 #1 Head

LTE850-FDD5 #1 Head								
Ambient Temperature: 22.5						Liquid Temperature: 22.3		
Mode	Device orientation	SAR measurement	Measured SAR [W/kg]			Reported SAR [W/kg]		
			20600	20525	20450	20600	20525	20450
			L	H	H	L	H	H
10MHz QPSK1RB	Tune-up		25.00	25.00	25.00	Scaling factor*		
	Measured Power [dBm]		24.47	24.46	24.47	1.13	1.13	1.13
	Left Cheek	1g SAR			0.234			0.26
		10g SAR			0.189			0.21
		Deviation			0.08			0.08
	Left Tilt	1g SAR			0.191			0.22
		10g SAR			0.153			0.17
		Deviation			0.04			0.04
	Right Cheek	1g SAR			0.248			0.28
		10g SAR			0.192			0.22
		Deviation			0.11			0.11
	Right Tilt	1g SAR			0.16			0.18
		10g SAR			0.131			0.15
		Deviation			-0.01			-0.01
TRUE	Device orientation	SAR measurement	Measured SAR [W/kg]			Reported SAR [W/kg]		
			20600	20525	20450	20600	20525	20450
			L	L	L	L	L	L
10MHz QPSK50% RB	Tune-up		24.00	24.00	24.00	Scaling factor*		
	Measured Power [dBm]		23.36	23.38	23.43	1.16	1.15	1.14
	Left Cheek	1g SAR			0.181			0.21
		10g SAR			0.146			0.17
		Deviation			-0.05			-0.05
	Left Tilt	1g SAR			0.152			0.17
		10g SAR			0.119			0.14
		Deviation			0.02			0.02
	Right Cheek	1g SAR			0.215			0.25
		10g SAR			0.165			0.19
		Deviation			0.08			0.08
	Right Tilt	1g SAR			0.113			0.13
		10g SAR			0.092			0.11
		Deviation			-0.03			-0.03
Mode	Device orientation	SAR measurement	Measured SAR [W/kg]			Reported SAR [W/kg]		
			20600	20525	20450	20600	20525	20450
10MHz QPSK100% RB	Tune-up		24.00	24.00	24.00	Scaling factor*		
	Measured Power [dBm]		23.33	23.35	23.40	1.17	1.16	1.15
	Left Cheek	1g SAR						
		10g SAR						
		Deviation						
10MHz QPSK1RB B1	Right Cheek	1g SAR			0.242			0.27
		10g SAR			0.185			0.21
		Deviation			0.03			0.03

Table 14-14 LTE850-FDD5 #1 Body

LTE850-FDD5 #1 Body								
Ambient Temperature: 22.5					Liquid Temperature: 22.3			
Mode	Device orientation	SAR measurement	Measured SAR [W/kg]			Reported SAR [W/kg]		
			20600	20525	20450	20600	20525	20450
			L	H	H	L	H	H
10MHz QPSK1RB	Tune-up		25.00	25.00	25.00	Scaling factor*		
	Measured Power [dBm]		24.47	24.46	24.47	1.13	1.13	1.13
	Front	1g SAR			0.344			0.39
		10g SAR			0.268			0.30
		Deviation			0.01			0.01
	Rear	1g SAR			0.447			0.50
		10g SAR			0.344			0.39
		Deviation			0.02			0.02
	Left edge	1g SAR			0.267			0.30
		10g SAR			0.186			0.21
		Deviation			-0.07			-0.07
	Right edge	1g SAR			0.373			0.42
		10g SAR			0.25			0.28
		Deviation			-0.03			-0.03
	Bottom edge	1g SAR			0.049			0.06
		10g SAR			0.031			0.03
		Deviation			0.05			0.05
Mode	Device orientation	SAR measurement	Measured SAR [W/kg]			Reported SAR [W/kg]		
			20600	20525	20450	20600	20525	20450
			L	L	L			
10MHz QPSK50% RB	Tune-up		24.00	24.00	24.00	Scaling factor*		
	Measured Power [dBm]		23.36	23.38	23.43	1.16	1.15	1.14
	Front	1g SAR			0.264			0.30
		10g SAR			0.205			0.23
		Deviation			0.03			0.03
	Rear	1g SAR			0.346			0.39
		10g SAR			0.267			0.30
		Deviation			0.07			0.07
	Left edge	1g SAR			0.21			0.24
		10g SAR			0.146			0.17
		Deviation			0.06			0.06
	Right edge	1g SAR			0.29			0.33
		10g SAR			0.197			0.22
		Deviation			-0.02			-0.02
	Bottom edge	1g SAR			0.042			0.05
		10g SAR			0.026			0.03
		Deviation			-0.06			-0.06
Mode	Device orientation	SAR measurement	Measured SAR [W/kg]			Reported SAR [W/kg]		
			20600	20525	20450	20600	20525	20450
10MHz QPSK100% RB	Tune-up		24.00	24.00	24.00	Scaling factor*		
	Measured Power [dBm]		23.33	23.35	23.40	1.17	1.16	1.15
	Front	1g SAR						
		10g SAR						
		Deviation						
10MHz QPSK1RB B1	*Rear*	1g SAR			0.437			0.49
		10g SAR			0.336			0.38
		Deviation			-0.02			-0.02

Table 14-15 LTE2500-FDD7 #1 Head

LTE2500-FDD7 #1 Head								
Ambient Temperature: 22.5						Liquid Temperature: 22.3		
Mode	Device orientation	SAR measurement	Measured SAR [W/kg]			Reported SAR [W/kg]		
			21350	21100	20850	21350	21100	20850
			L	H	L	L	H	L
20MHz QPSK1RB	Tune-up		22.50	22.50	22.50	Scaling factor*		
	Measured Power [dBm]		22.02	22.07	22.11	1.12	1.10	1.09
	Left Cheek	1g SAR			0.1			0.11
		10g SAR			0.057			0.06
		Deviation			-0.04			-0.04
	Left Tilt	1g SAR			0.095			0.10
		10g SAR			0.051			0.06
		Deviation			0.09			0.09
	Right Cheek	1g SAR			0.177			0.19
		10g SAR			0.091			0.10
		Deviation			0.05			0.05
	Right Tilt	1g SAR			0.082			0.09
		10g SAR			0.04			0.04
		Deviation			0.01			0.01
TRUE	Device orientation	SAR measurement	Measured SAR [W/kg]			Reported SAR [W/kg]		
			21350	21100	20850	21350	21100	20850
			M	L	H	M	L	H
20MHz QPSK50% RB	Tune-up		21.50	21.50	21.50	Scaling factor*		
	Measured Power [dBm]		20.88	21.00	21.11	1.15	1.12	1.09
	Left Cheek	1g SAR			0.07			0.08
		10g SAR			0.039			0.04
		Deviation			-0.04			-0.04
	Left Tilt	1g SAR			0.073			0.08
		10g SAR			0.043			0.05
		Deviation			-0.02			-0.02
	Right Cheek	1g SAR			0.115			0.13
		10g SAR			0.057			0.06
		Deviation			-0.08			-0.08
	Right Tilt	1g SAR			0.053			0.06
		10g SAR			0.035			0.04
		Deviation			0.01			0.01
Mode	Device orientation	SAR measurement	Measured SAR [W/kg]			Reported SAR [W/kg]		
			21350	21100	20850	21350	21100	20850
20MHz QPSK100% RB	Tune-up		21.50	21.50	21.50	Scaling factor*		
	Measured Power [dBm]		20.84	20.93	21.09	1.16	1.14	1.10
	Left Cheek	1g SAR						
		10g SAR						
		Deviation						
20MHz QPSK1RB B1	Right Cheek	1g SAR			0.169			0.18
		10g SAR			0.084			0.09
		Deviation			0.04			0.04

Table 14-16 LTE2500-FDD7 #1 Body

LTE2500-FDD7 #1 Body								
Ambient Temperature:	22.5				Liquid Temperature:			22.3
Mode	**Device orientation**	**SAR measurement**	**Measured SAR [W/kg]**			**Reported SAR [W/kg]**		
			21350	**21100**	**20850**	**21350**	**21100**	**20850**
			L	**H**	**L**	**L**	**H**	**L**
20MHz QPSK1RB	**Tune-up**		**22.50**	**22.50**	**22.50**	**Scaling factor***		
	Measured Power [dBm]		**22.02**	**22.07**	**22.11**	**1.12**	**1.10**	**1.09**
	Front	1g SAR			0.618			0.68
		10g SAR			0.309			0.34
		Deviation			0.06			0.06
	Rear	1g SAR	0.737	0.746	0.753	0.82	0.82	0.82
		10g SAR	0.311	0.318	0.323	0.35	0.35	0.35
		Deviation	0.03	0.03	0.11	0.03	0.03	0.11
	Left edge	1g SAR			0.116			0.13
		10g SAR			0.062			0.07
		Deviation			-0.02			-0.02
	Right edge	1g SAR			0.15			0.16
		10g SAR			0.081			0.09
		Deviation			-0.01			-0.01
	Bottom edge	1g SAR			0.544			0.59
		10g SAR			0.264			0.29
		Deviation			0.05			0.05
Mode	**Device orientation**	**SAR measurement**	**Measured SAR [W/kg]**			**Reported SAR [W/kg]**		
			21350	**21100**	**20850**	**21350**	**21100**	**20850**
			M	**L**	**H**			
20MHz QPSK50% RB	**Tune-up**		**21.50**	**21.50**	**21.50**	**Scaling factor***		
	Measured Power [dBm]		**20.88**	**21.00**	**21.11**	**1.15**	**1.12**	**1.09**
	Front	1g SAR			0.469			0.51
		10g SAR			0.237			0.26
		Deviation			0.06			0.06
	Rear	1g SAR			0.578			0.63
		10g SAR			0.249			0.27
		Deviation			-0.03			-0.03
	Left edge	1g SAR			0.096			0.11
		10g SAR			0.05			0.05
		Deviation			-0.04			-0.04
	Right edge	1g SAR			0.126			0.14
		10g SAR			0.068			0.07
		Deviation			-0.02			-0.02
	Bottom edge	1g SAR			0.463			0.51
		10g SAR			0.224			0.25
		Deviation			0.09			0.09
Mode	**Device orientation**	**SAR measurement**	**Measured SAR [W/kg]**			**Reported SAR [W/kg]**		
			21350	**21100**	**20850**	**21350**	**21100**	**20850**
20MHz QPSK100% RB	**Tune-up**		**21.50**	**21.50**	**21.50**	**Scaling factor***		
	Measured Power [dBm]		**20.84**	**20.93**	**21.09**	**1.16**	**1.14**	**1.10**
	Rear	1g SAR			0.648			0.71
		10g SAR			0.287			0.32
		Deviation			0.05			0.05
20MHz QPSK1RB B1	*Rear*	1g SAR			0.746			0.82
		10g SAR			0.315			0.34
		Deviation			0.03			0.03

Table 14-17 LTE700-FDD17 #1 Head

LTE700-FDD17 #1 Head								
Ambient Temperature: 22.5						Liquid Temperature: 22.3		
Mode	Device orientation	SAR measurement	Measured SAR [W/kg]			Reported SAR [W/kg]		
			23800	23790	23780	23800	23790	23780
			H	H	H	H	H	H
10MHz QPSK1RB	Tune-up		24.50	24.50	24.50	Scaling factor*		
	Measured Power [dBm]		23.64	23.68	23.72	1.22	1.21	1.20
	Left Cheek	1g SAR			0.183			0.22
		10g SAR			0.151			0.18
		Deviation			0.06			0.06
	Left Tilt	1g SAR			0.152			0.18
		10g SAR			0.126			0.15
		Deviation			-0.04			-0.04
	Right Cheek	1g SAR			0.192			0.23
		10g SAR			0.153			0.18
		Deviation			0.14			0.14
	Right Tilt	1g SAR			0.152			0.18
		10g SAR			0.113			0.14
		Deviation			0.06			0.06
TRUE	Device orientation	SAR measurement	Measured SAR [W/kg]			Reported SAR [W/kg]		
			23800	23790	23780	23800	23790	23780
			L	L	L	L	L	L
10MHz QPSK50% RB	Tune-up		23.50	23.50	23.50	Scaling factor*		
	Measured Power [dBm]		22.63	22.61	22.59	1.22	1.23	1.23
	Left Cheek	1g SAR	0.132			0.16		
		10g SAR	0.108			0.13		
		Deviation	0.01			0.01		
	Left Tilt	1g SAR	0.117			0.14		
		10g SAR	0.098			0.12		
		Deviation	0.05			0.05		
	Right Cheek	1g SAR	0.151			0.18		
		10g SAR	0.119			0.15		
		Deviation	-0.06			-0.06		
	Right Tilt	1g SAR	0.07			0.09		
		10g SAR	0.05			0.06		
		Deviation	-0.09			-0.09		
Mode	Device orientation	SAR measurement	Measured SAR [W/kg]			Reported SAR [W/kg]		
			23800	23790	23780	23800	23790	23780
10MHz QPSK100% RB	Tune-up		23.50	23.50	23.50	Scaling factor*		
	Measured Power [dBm]		22.61	22.58	22.57	1.23	1.24	1.24
	Left Cheek	1g SAR						
		10g SAR						
		Deviation						
10MHz QPSK1RB B1	Right Cheek	1g SAR			0.187			0.22
		10g SAR			0.148			0.18
		Deviation			0.03			0.03

Table 14-18 LTE700-FDD17 #1 Body

LTE700-FDD17 #1 Body								
Ambient Temperature:	22.5					Liquid Temperature:		22.3
Mode	Device orientation	SAR measurement	Measured SAR [W/kg]			Reported SAR [W/kg]		
			23800	23790	23780	23800	23790	23780
			H	H	H	H	H	H
10MHz QPSK1RB	Tune-up		24.50	24.50	24.50	Scaling factor*		
	Measured Power [dBm]		23.64	23.68	23.72	1.22	1.21	1.20
	Front	1g SAR			0.152			0.18
		10g SAR			0.104			0.12
		Deviation			0.01			0.01
	Rear	1g SAR			0.289			0.35
		10g SAR			0.198			0.24
		Deviation			-0.04			-0.04
	Left edge	1g SAR			0.271			0.32
		10g SAR			0.178			0.21
		Deviation			-0.01			-0.01
	Right edge	1g SAR			0.3			0.36
		10g SAR			0.209			0.25
		Deviation			0.05			0.05
	Bottom edge	1g SAR			0.025			0.03
		10g SAR			0.017			0.02
		Deviation			0.06			0.06
Mode	Device orientation	SAR measurement	Measured SAR [W/kg]			Reported SAR [W/kg]		
			23800	23790	23780	23800	23790	23780
			L	L	L			
10MHz QPSK50% RB	Tune-up		23.50	23.50	23.50	Scaling factor*		
	Measured Power [dBm]		22.63	22.61	22.59	1.22	1.23	1.23
	Front	1g SAR	0.185			0.23		
		10g SAR	0.133			0.16		
		Deviation	0.03			0.03		
	Rear	1g SAR	0.215			0.26		
		10g SAR	0.157			0.19		
		Deviation	0.08			0.08		
	Left edge	1g SAR	0.177			0.22		
		10g SAR	0.117			0.14		
		Deviation	0.01			0.01		
	Right edge	1g SAR	0.209			0.26		
		10g SAR	0.138			0.17		
		Deviation	0.02			0.02		
	Bottom edge	1g SAR	0.017			0.02		
		10g SAR	0.009			0.01		
		Deviation	-0.04			-0.04		
Mode	Device orientation	SAR measurement	Measured SAR [W/kg]			Reported SAR [W/kg]		
			23800	23790	23780	23800	23790	23780
10MHz QPSK100% RB	Tune-up		23.50	23.50	23.50	Scaling factor*		
	Measured Power [dBm]		22.61	22.58	22.57	1.23	1.24	1.24
	Front	1g SAR						
		10g SAR						
		Deviation						
10MHz QPSK1RB B1	*Right edge*	1g SAR			0.291			0.35
		10g SAR			0.166			0.20
		Deviation			-0.02			-0.02

14.3 Full SAR

Test Band	Channel	Frequency	Tune-Up	Measured Power	Test Position	Measured 10g SAR	Measured 1g SAR	Reported 10g SAR	Reported 1g SAR	Power Drift	Figure
GSM850	128	824.2 MHz	32.5	32.19	Right Cheek	0.353	0.455	0.38	0.49	0.12	Fig A.1
GSM850	190	836.6 MHz	32.5	32.23	Rear	0.493	0.641	0.53	0.68	-0.04	Fig A.2
PCS1900	661	1880 MHz	29.5	29.07	Left Cheek	0.18	0.281	0.20	0.31	0.01	Fig A.3
PCS1900	512	1850.2 MHz	29.5	28.99	Bottom edge	0.611	1.15	0.69	1.29	-0.15	Fig A.4
WCDMA1900-BII	9400	1880 MHz	23.5	22.51	Right Cheek	0.204	0.319	0.26	0.40	-0.07	Fig A.5
WCDMA1900-BII	9262	1852.4 MHz	23.5	22.61	Bottom edge	0.533	1.01	0.65	1.24	-0.18	Fig A.6
WCDMA850-BV	4182	835.4 MHz	24.5	23.54	Left Cheek	0.193	0.252	0.24	0.31	0.19	Fig A.7
WCDMA850-BV	4233	846.6 MHz	24.5	23.48	Rear	0.303	0.393	0.38	0.50	-0.03	Fig A.8
LTE1900-FDD2	19100	1900 MHz	24	23.20	Left Cheek	0.216	0.337	0.26	0.41	0.03	Fig A.9
LTE1900-FDD2	19100	1900 MHz	24	23.20	Rear	0.389	0.766	0.47	0.92	-0.05	Fig A.10
LTE1700-FDD4	20300	1745 MHz	23.5	22.71	Right Cheek	0.082	0.123	0.10	0.15	0.04	Fig A.11
LTE1700-FDD4	20300	1745 MHz	23.5	22.71	Bottom edge	0.566	1.05	0.68	1.26	0.14	Fig A.12
LTE850-FDD5	20450	829 MHz	25	24.47	Right Cheek	0.192	0.248	0.22	0.28	0.11	Fig A.13
LTE850-FDD5	20450	829 MHz	25	24.47	Rear	0.344	0.447	0.39	0.50	0.02	Fig A.14
LTE2500-FDD7	20850	2510 MHz	22.5	22.11	Right Cheek	0.091	0.177	0.10	0.19	0.05	Fig A.15
LTE2500-FDD7	20850	2510 MHz	22.5	22.11	Rear	0.323	0.753	0.35	0.82	0.11	Fig A.16
LTE700-FDD17	23780	709 MHz	24.5	23.72	Right Cheek	0.153	0.192	0.18	0.23	0.14	Fig A.17
LTE700-FDD17	23780	709 MHz	24.5	23.72	Right edge	0.209	0.3	0.25	0.36	0.05	Fig A.18

14.4 WLAN Evaluation

According to the KDB248227 D01, SAR is measured for 802.11b DSSS using the initial test position procedure.

Note1: When the reported SAR of the initial test position is > 0.4 W/kg, SAR is repeated for the 802.11 transmission mode configuration tested in the initial test position using subsequent highest estimated 1-g SAR conditions determined by area scans, on the highest maximum output power channel, until the reported SAR is ≤ 0.8 W/kg.

Note2: For all positions/configurations tested using the initial test position and subsequent test positions, when the reported SAR is > 0.8 W/kg, SAR is measured for these test positions/configurations on the subsequent next highest measured output power channel until the reported SAR is ≤ 1.2 W/kg or all required channels are tested.

Note3: According to the KDB248227 D01, The reported SAR must be scaled to 100% transmission duty factor to determine compliance at the maximum tune-up tolerance limit.

Table 14-19 WLAN2450 #1

WLAN2450 #1								
Ambient Temperature: 22.5						Liquid Temperature: 22.3		
Rate	Device orientation	SAR measurement	Measured SAR [W/kg]			Reported SAR [W/kg]		
			11	6	1	11	6	1
			2462 MHz	2437 MHz	2412 MHz			
802.11b 1Mbps	Tune up		17	17	17	Scaling factor*		
	Slot Average Power [dBm]		16.43	16.86	16.09	1.14	1.03	1.23
	Left Cheek	1g Fast SAR		0.531			0.55	
		10g SAR		0.243			0.25	
		Deviation		0.05			0.05	
	Left Tilt	1g Fast SAR		0.349			0.36	
		10g SAR		0.161			0.17	
		Deviation		0.02			0.02	
	Right Cheek	1g Fast SAR		0.2			0.21	
		10g SAR		0.103			0.11	
		Deviation		-0.05			-0.05	
	Right Tilt	1g Fast SAR		0.148			0.15	
		10g SAR		0.076			0.08	
		Deviation		0.02			0.02	
802.11b 1Mbps B1	*Left Cheek*	1g Fast SAR		0.523			0.54	
		10g SAR		0.234			0.24	
		Deviation		0.01			0.01	

Table 14-20 WLAN2450 #1 Head Full SAR

WLAN2450 #1 Head Full SAR								
Ambient Temperature: 22.5						Liquid Temperature: 22.3		
Rate	Device orientation	SAR measurement	Measured SAR [W/kg]			Reported SAR [W/kg]		
			11	6	1	11	6	1
			2462 MHz	2437 MHz	2412 MHz			
802.11b 1Mbps	Tune up		17	17	17	Scaling factor*		
	Slot Average Power [dBm]		16.43	16.86	16.09	1.14	1.03	1.23
	Left Cheek	1g Full SAR		0.558			0.58	
		10g SAR		0.248			0.26	
		Deviation		0.05			0.05	
	Left Tilt	1g Full SAR		0.385			0.40	
		10g SAR		0.165			0.17	
		Deviation		0.02			0.02	
	Right Cheek	1g Full SAR						
		10g SAR						
		Deviation						
	Right Tilt	1g Full SAR						
		10g SAR						
		Deviation						

Table 14-21 WLAN2450 #1 Body Fast SAR

WLAN2450 #1 Body Fast SAR								
Ambient Temperature: 22.5						Liquid Temperature: 22.3		
Rate	Device orientation	SAR measurement	Measured SAR [W/kg]			Reported SAR [W/kg]		
			11	6	1	11	6	1
			2462 MHz	2437 MHz	2412 MHz			
802.11b 1Mbps	Tune up		17	17	17	Scaling factor*		
	Slot Average Power [dBm]		16.43	16.86	16.09	1.14	1.03	1.23
	Front	1g Fast SAR		0.086			0.09	
		10g SAR		0.044			0.05	
		Deviation		0.08			0.08	
	Rear	1g Fast SAR		0.123			0.13	
		10g SAR		0.064			0.07	
		Deviation		-0.06			-0.06	
	Top edge	1g Fast SAR		0.042			0.04	
		10g SAR		0.022			0.02	
		Deviation		-0.15			-0.15	
	Right edge	1g Fast SAR		0.07			0.07	
		10g SAR		0.038			0.04	
		Deviation		0.03			0.03	
802.11b 1Mbps Battery	*Rear*	1g Fast SAR		0.118			0.12	
		10g SAR		0.059			0.06	
		Deviation		0.05			0.05	

Table 14-22 WLAN2450 #1 Body Full SAR

WLAN2450 #1 Body Full SAR								
Ambient Temperature: 22.5						Liquid Temperature: 22.3		
Rate	Device orientation	SAR measurement	Measured SAR [W/kg]			Reported SAR [W/kg]		
			11	6	1	11	6	1
			2462 MHz	2437 MHz	2412 MHz			
802.11b 1Mbps	Tune up		17	17	17	Scaling factor*		
	Slot Average Power [dBm]		16.43	16.86	16.09	1.14	1.03	1.23
	Rear	1g Full SAR		0.127			0.13	
		10g SAR		0.065			0.07	
		Deviation		-0.06			-0.06	

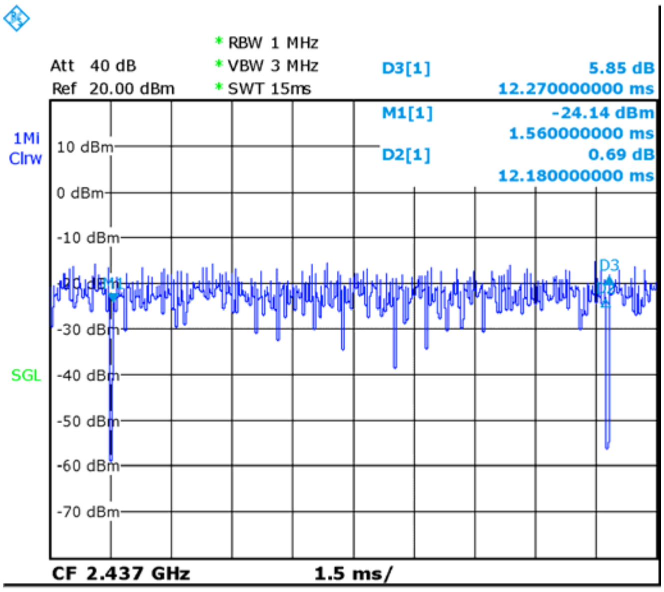
SAR is not required for OFDM because the 802.11b adjusted SAR ⩽ 1.2 W/kg.

According to the KDB248227 D01, The reported SAR must be scaled to 100% transmission duty factor to determine compliance at the maximum tune-up tolerance limit. The scaled reported SAR is presented as below

Frequency		Test Position	Actual duty factor	maximum duty factor	Reported SAR(1g)(W/kg)	Scaled reported SAR(1g)(W/kg)	Figure
MHz	Ch.						
2437	6	Left Cheek	99.27%	100%	0.58	0.58	Fig A.19

According to the KDB248227 D01, The reported SAR must be scaled to 100% transmission duty factor to determine compliance at the maximum tune-up tolerance limit. The scaled reported SAR is presented as below

Frequency		Test Position	Actual duty factor	maximum duty factor	Reported SAR(1g)(W/kg)	Scaled reported SAR(1g)(W/kg)	Figure
MHz	Ch.						
2437	6	Rear	99.27%	100%	0.13	0.13	Fig A.20



Picture 14.1 Duty factor plot

Spot check for SIM2

Test Band	Channel	Frequency	Tune-Up	Measured Power	Test Position	Measured 10g SAR	Measured 1g SAR	Reported 10g SAR	Reported 1g SAR	Power Drift
GSM850	128	824.2 MHz	32.5	32.19	Right Cheek	0.273	0.338	0.29	0.36	0.01
GSM850	190	836.6 MHz	32.5	32.23	Rear	0.373	0.591	0.40	0.63	0.02
PCS1900	661	1880 MHz	29.5	29.07	Left Cheek	0.14	0.221	0.15	0.24	0.01
PCS1900	512	1850.2 MHz	29.5	28.99	Bottom edge	0.551	1.1	0.62	1.24	-0.15
WCDMA1900-BII	9400	1880 MHz	23.5	22.51	Right Cheek	0.124	0.259	0.16	0.33	-0.07
WCDMA1900-BII	9262	1852.4 MHz	23.5	22.61	Bottom edge	0.493	0.93	0.61	1.14	-0.18
WCDMA850-BV	4182	835.4 MHz	24.5	23.54	Left Cheek	0.133	0.212	0.17	0.26	0.19
WCDMA850-BV	4233	846.6 MHz	24.5	23.48	Rear	0.223	0.313	0.28	0.40	-0.03
LTE1900-FDD2	19100	1900 MHz	24	23.20	Left Cheek	0.196	0.297	0.24	0.36	0.03
LTE1900-FDD2	19100	1900 MHz	24	23.20	Rear	0.339	0.686	0.41	0.82	-0.05
LTE1700-FDD4	20300	1745 MHz	23.5	22.71	Right Cheek	0.022	0.103	0.03	0.12	0.04
LTE1700-FDD4	20300	1745 MHz	23.5	22.71	Bottom edge	0.486	1	0.58	1.20	0.14
LTE850-FDD5	20450	829 MHz	25	24.47	Right Cheek	0.152	0.168	0.17	0.19	0.11
LTE850-FDD5	20450	829 MHz	25	24.47	Rear	0.264	0.407	0.30	0.46	0.02
LTE2500-FDD7	20850	2510 MHz	22.5	22.11	Right Cheek	0.071	0.097	0.08	0.11	0.05
LTE2500-FDD7	20850	2510 MHz	22.5	22.11	Rear	0.243	0.733	0.27	0.80	0.11
LTE700-FDD17	23780	709 MHz	24.5	23.72	Right Cheek	0.113	0.152	0.14	0.18	0.14
LTE700-FDD17	23780	709 MHz	24.5	23.72	Right edge	0.129	0.22	0.15	0.26	0.05
WLAN2450	6	2437	17	16.86	Left Cheek	0.228	0.478	0.24	0.49	0.05
WLAN2450	6	2437	17	16.86	Rear	0.015	0.087	0.02	0.09	-0.06

15 SAR Measurement Variability

SAR measurement variability must be assessed for each frequency band, which is determined by the SAR probe calibration point and tissue-equivalent medium used for the device measurements. When both head and body tissue-equivalent media are required for SAR measurements in a frequency band, the variability measurement procedures should be applied to the tissue medium with the highest measured SAR, using the highest measured SAR configuration for that tissue-equivalent medium.

The following procedures are applied to determine if repeated measurements are required.

1) Repeated measurement is not required when the original highest measured SAR is < 0.80 W/kg; steps 2) through 4) do not apply.

2) When the original highest measured SAR is ≥ 0.80 W/kg, repeat that measurement once.

3) 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).

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.

Mode	CH	Freq	Test Poisition	Original SAR (W/kg)	First Repeated SAR(W/kg)	The Ratio
PCS1900	512	1850.2 MHz	Bottom edge	1.15	1.13	1.02
WCDMA1900-BII	9262	1852.4 MHz	Bottom edge	1.01	0.998	1.01
LTE1700-FDD4	20300	1745 MHz	Bottom edge	1.05	1.04	1.01

16 Measurement Uncertainty

16.1 Measurement Uncertainty for Normal SAR Tests (300MHz~3GHz)

No.	Error Description	Type	Uncertainty value	Probably Distribution	Div.	(Ci) 1g	(Ci) 10g	Std. Unc. (1g)	Std. Unc. (10g)	Degree of freedom
Measurement system										
1	Probe calibration	B	6.0	N	1	1	1	6.0	6.0	∞
2	Isotropy	B	4.7	R	$\sqrt{3}$	0.7	0.7	1.9	1.9	∞
3	Boundary effect	B	1.0	R	$\sqrt{3}$	1	1	0.6	0.6	∞
4	Linearity	B	4.7	R	$\sqrt{3}$	1	1	2.7	2.7	∞
5	Detection limit	B	1.0	N	1	1	1	0.6	0.6	∞
6	Readout electronics	B	0.3	R	$\sqrt{3}$	1	1	0.3	0.3	∞
7	Response time	B	0.8	R	$\sqrt{3}$	1	1	0.5	0.5	∞
8	Integration time	B	2.6	R	$\sqrt{3}$	1	1	1.5	1.5	∞
9	RF ambient conditions-noise	B	0	R	$\sqrt{3}$	1	1	0	0	∞
10	RFambient conditions-reflection	B	0	R	$\sqrt{3}$	1	1	0	0	∞
11	Probe positioned mech. restrictions	B	0.4	R	$\sqrt{3}$	1	1	0.2	0.2	∞
12	Probe positioning with respect to phantom shell	B	2.9	R	$\sqrt{3}$	1	1	1.7	1.7	∞
13	Post-processing	B	1.0	R	$\sqrt{3}$	1	1	0.6	0.6	∞
Test sample related										
14	Test sample positioning	A	3.3	N	1	1	1	3.3	3.3	71
15	Device holder uncertainty	A	3.4	N	1	1	1	3.4	3.4	5
16	Drift of output power	B	5.0	R	$\sqrt{3}$	1	1	2.9	2.9	∞
Phantom and set-up										
17	Phantom uncertainty	B	4.0	R	$\sqrt{3}$	1	1	2.3	2.3	∞
18	Liquid conductivity (target)	B	5.0	R	$\sqrt{3}$	0.64	0.43	1.8	1.2	∞
19	Liquid conductivity (meas.)	A	2.06	N	1	0.64	0.43	1.32	0.89	43
20	Liquid permittivity (target)	B	5.0	R	$\sqrt{3}$	0.6	0.49	1.7	1.4	∞
21	Liquid permittivity (meas.)	A	1.6	N	1	0.6	0.49	1.0	0.8	521

Combined standard uncertainty	$u_c^{'} = \sqrt{\sum_{i=1}^{21} c_i^2 u_i^2}$						9.55	9.43	257
Expanded uncertainty (confidence interval of 95 %)	$u_e = 2u_c$						19.1	18.9	

16.2 Measurement Uncertainty for Normal SAR Tests (3~6GHz)

No.	Error Description	Type	Uncertainty value	Probably Distribution	Div.	(Ci) 1g	(Ci) 10g	Std. Unc. (1g)	Std. Unc. (10g)	Degree of freedom
Measurement system										
1	Probe calibration	B	6.55	N	1	1	1	6.55	6.55	∞
2	Isotropy	B	4.7	R	$\sqrt{3}$	0.7	0.7	1.9	1.9	∞
3	Boundary effect	B	2.0	R	$\sqrt{3}$	1	1	1.2	1.2	∞
4	Linearity	B	4.7	R	$\sqrt{3}$	1	1	2.7	2.7	∞
5	Detection limit	B	1.0	R	$\sqrt{3}$	1	1	0.6	0.6	∞
6	Readout electronics	B	0.3	R	$\sqrt{3}$	1	1	0.3	0.3	∞
7	Response time	B	0.8	R	$\sqrt{3}$	1	1	0.5	0.5	∞
8	Integration time	B	2.6	R	$\sqrt{3}$	1	1	1.5	1.5	∞
9	RF ambient conditions-noise	B	0	R	$\sqrt{3}$	1	1	0	0	∞
10	RF ambient conditions-reflection	B	0	R	$\sqrt{3}$	1	1	0	0	∞
11	Probe positioned mech. restrictions	B	0.8	R	$\sqrt{3}$	1	1	0.5	0.5	∞
12	Probe positioning with respect to phantom shell	B	6.7	R	$\sqrt{3}$	1	1	3.9	3.9	∞
13	Post-processing	B	4.0	R	$\sqrt{3}$	1	1	2.3	2.3	∞
Test sample related										
14	Test sample positioning	A	3.3	N	1	1	1	3.3	3.3	71
15	Device holder uncertainty	A	3.4	N	1	1	1	3.4	3.4	5
16	Drift of output power	B	5.0	R	$\sqrt{3}$	1	1	2.9	2.9	∞
Phantom and set-up										
17	Phantom uncertainty	B	4.0	R	$\sqrt{3}$	1	1	2.3	2.3	∞
18	Liquid conductivity (target)	B	5.0	R	$\sqrt{3}$	0.64	0.43	1.8	1.2	∞
19	Liquid conductivity (meas.)	A	2.06	N	1	0.64	0.43	1.32	0.89	43
20	Liquid permittivity	B	5.0	R	$\sqrt{3}$	0.6	0.49	1.7	1.4	∞

	(target)									
21	Liquid permittivity (meas.)	A	1.6	N	1	0.6	0.49	1.0	0.8	521
Combined standard uncertainty		$u_c' = \sqrt{\sum_{i=1}^{21} c_i^2 u_i^2}$						10.7	10.6	257
Expanded uncertainty (confidence interval of 95 %)		$u_e = 2u_c$						21.4	21.1	

16.3 Measurement Uncertainty for Fast SAR Tests (300MHz~3GHz)

No.	Error Description	Type	Uncertainty value	Probably Distribution	Div.	(Ci) 1g	(Ci) 10g	Std. Unc. (1g)	Std. Unc. (10g)	Degree of freedom
Measurement system										
1	Probe calibration	B	6.0	N	1	1	1	6.0	6.0	∞
2	Isotropy	B	4.7	R	$\sqrt{3}$	0.7	0.7	1.9	1.9	∞
3	Boundary effect	B	1.0	R	$\sqrt{3}$	1	1	0.6	0.6	∞
4	Linearity	B	4.7	R	$\sqrt{3}$	1	1	2.7	2.7	∞
5	Detection limit	B	1.0	R	$\sqrt{3}$	1	1	0.6	0.6	∞
6	Readout electronics	B	0.3	R	$\sqrt{3}$	1	1	0.3	0.3	∞
7	Response time	B	0.8	R	$\sqrt{3}$	1	1	0.5	0.5	∞
8	Integration time	B	2.6	R	$\sqrt{3}$	1	1	1.5	1.5	∞
9	RF ambient conditions-noise	B	0	R	$\sqrt{3}$	1	1	0	0	∞
10	RF ambient conditions-reflection	B	0	R	$\sqrt{3}$	1	1	0	0	∞
11	Probe positioned mech. Restrictions	B	0.4	R	$\sqrt{3}$	1	1	0.2	0.2	∞
12	Probe positioning with respect to phantom shell	B	2.9	R	$\sqrt{3}$	1	1	1.7	1.7	∞
13	Post-processing	B	1.0	R	$\sqrt{3}$	1	1	0.6	0.6	∞
14	Fast SAR z-Approximation	B	7.0	R	$\sqrt{3}$	1	1	4.0	4.0	∞
Test sample related										
15	Test sample positioning	A	3.3	N	1	1	1	3.3	3.3	71
16	Device holder uncertainty	A	3.4	N	1	1	1	3.4	3.4	5
17	Drift of output power	B	5.0	R	$\sqrt{3}$	1	1	2.9	2.9	∞
Phantom and set-up										
18	Phantom uncertainty	B	4.0	R	$\sqrt{3}$	1	1	2.3	2.3	∞

19	Liquid conductivity (target)	B	5.0	R	$\sqrt{3}$	0.64	0.43	1.8	1.2	∞
20	Liquid conductivity (meas.)	A	2.06	N	1	0.64	0.43	1.32	0.89	43
21	Liquid permittivity (target)	B	5.0	R	$\sqrt{3}$	0.6	0.49	1.7	1.4	∞
22	Liquid permittivity (meas.)	A	1.6	N	1	0.6	0.49	1.0	0.8	521
Combined standard uncertainty		$u_c^{'} = \sqrt{\sum_{i=1}^{22} c_i^2 u_i^2}$						10.4	10.3	257
Expanded uncertainty (confidence interval of 95 %)		$u_e = 2u_c$						20.8	20.6	

16.4 Measurement Uncertainty for Fast SAR Tests (3~6GHz)

No.	Error Description	Type	Uncertainty value	Probably Distribution	Div.	(Ci) 1g	(Ci) 10g	Std. Unc. (1g)	Std. Unc. (10g)	Degree of freedom
Measurement system										
1	Probe calibration	B	6.55	N	1	1	1	6.55	6.55	∞
2	Isotropy	B	4.7	R	$\sqrt{3}$	0.7	0.7	1.9	1.9	∞
3	Boundary effect	B	2.0	R	$\sqrt{3}$	1	1	1.2	1.2	∞
4	Linearity	B	4.7	R	$\sqrt{3}$	1	1	2.7	2.7	∞
5	Detection limit	B	1.0	R	$\sqrt{3}$	1	1	0.6	0.6	∞
6	Readout electronics	B	0.3	R	$\sqrt{3}$	1	1	0.3	0.3	∞
7	Response time	B	0.8	R	$\sqrt{3}$	1	1	0.5	0.5	∞
8	Integration time	B	2.6	R	$\sqrt{3}$	1	1	1.5	1.5	∞
9	RF ambient conditions-noise	B	0	R	$\sqrt{3}$	1	1	0	0	∞
10	RF ambient conditions-reflection	B	0	R	$\sqrt{3}$	1	1	0	0	∞
11	Probe positioned mech. Restrictions	B	0.8	R	$\sqrt{3}$	1	1	0.5	0.5	∞
12	Probe positioning with respect to phantom shell	B	6.7	R	$\sqrt{3}$	1	1	3.9	3.9	∞
13	Post-processing	B	1.0	R	$\sqrt{3}$	1	1	0.6	0.6	∞
14	Fast SAR z-Approximation	B	14.0	R	$\sqrt{3}$	1	1	8.1	8.1	∞
Test sample related										
15	Test sample positioning	A	3.3	N	1	1	1	3.3	3.3	71

16	Device holder uncertainty	A	3.4	N	1	1	1	3.4	3.4	5
17	Drift of output power	B	5.0	R	$\sqrt{3}$	1	1	2.9	2.9	∞
Phantom and set-up										
18	Phantom uncertainty	B	4.0	R	$\sqrt{3}$	1	1	2.3	2.3	∞
19	Liquid conductivity (target)	B	5.0	R	$\sqrt{3}$	0.64	0.43	1.8	1.2	∞
20	Liquid conductivity (meas.)	A	2.06	N	1	0.64	0.43	1.32	0.89	43
21	Liquid permittivity (target)	B	5.0	R	$\sqrt{3}$	0.6	0.49	1.7	1.4	∞
22	Liquid permittivity (meas.)	A	1.6	N	1	0.6	0.49	1.0	0.8	521
Combined standard uncertainty		$u_c^{'} = \sqrt{\sum_{i=1}^{22} c_i^2 u_i^2}$						13.5	13.4	257
Expanded uncertainty (confidence interval of 95 %)		$u_e = 2u_c$						27.0	26.8	

17 MAIN TEST INSTRUMENTS

Table 17.1: List of Main Instruments

No.	Name	Type	Serial Number	Calibration Date	Valid Period
01	Network analyzer	E5071C	MY46110673	January 24, 2018	One year
02	Power meter	NRVD	102083	November 01, 2017	One year
03	Power sensor	NRV-Z5	100542		
04	Signal Generator	E4438C	MY49071430	January 2,2018	One Year
05	Amplifier	60S1G4	0331848	No Calibration Requested	
06	BTS	E5515C	MY50263375	January 23, 2018	One year
07	BTS	CMW500	149646	October 31, 2017	One year
08	E-field Probe	SPEAG EX3DV4	7464	September 12,2017	One year
09	DAE	SPEAG DAE4	1525	October 2, 2017	One year
10	Dipole Validation Kit	SPEAG D750V3	1017	July 19, 2017	One year
11	Dipole Validation Kit	SPEAG D835V2	4d069	July 19, 2017	One year
12	Dipole Validation Kit	SPEAG D1750V2	1003	July 21, 2017	One year
13	Dipole Validation Kit	SPEAG D1900V2	5d101	July 26, 2017	One year
14	Dipole Validation Kit	SPEAG D2450V2	853	July 21, 2017	One year
15	Dipole Validation Kit	SPEAG D2600V2	1012	July 21, 2017	One year

END OF REPORT BODY

ANNEX A Graph Results

GSM850_CH251 Right Cheek
Date: 4/23/2018
Electronics: DAE4 Sn1525
Medium: Head 835 MHz
Medium parameters used: f = 848.8 MHz; σ = 0.905 mho/m; εr = 41.08; ρ = 1000 kg/m^3
Ambient Temperature: 22.5°C, Liquid Temperature: 22.3°C
Communication System: GSM850 848.8 MHz Duty Cycle: 1:8.3
Probe: EX3DV4 – SN7464 ConvF(10.28,10.28,10.28)

Area Scan (71x121x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 0.179 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 4.993 V/m; Power Drift = 0.2 dB
Peak SAR (extrapolated) = 0.205 W/kg
SAR(1 g) = 0.168 W/kg; SAR(10 g) = 0.13 W/kg
Maximum value of SAR (measured) = 0.175 W/kg

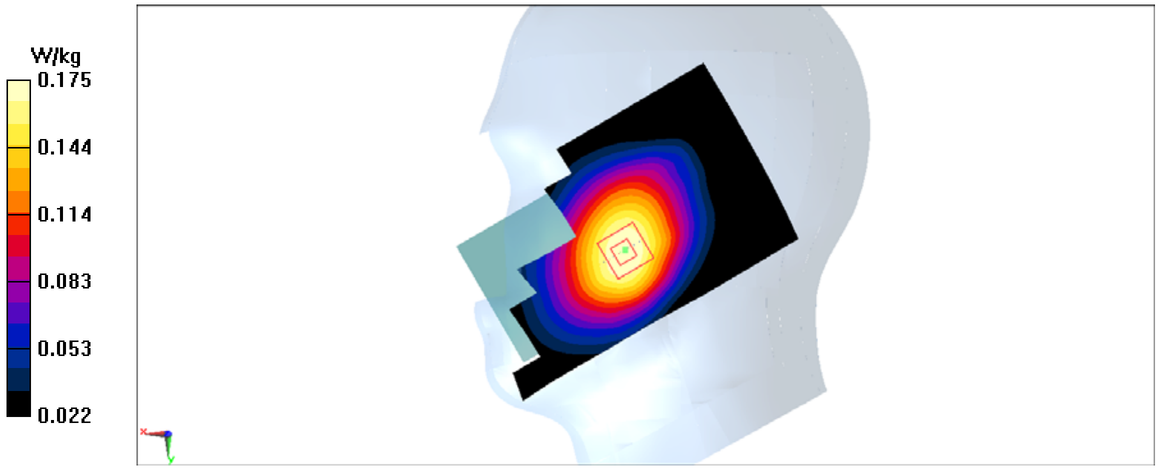


Fig A.1

GSM850_CH251 Rear
Date: 4/23/2018
Electronics: DAE4 Sn1525
Medium: Head 835 MHz
Medium parameters used: f = 848.8 MHz; σ = 0.99 mho/m; εr = 54.27; ρ = 1000 kg/m^3
Ambient Temperature: 22.5°C, Liquid Temperature: 22.3°C
Communication System: GSM850 848.8 MHz Duty Cycle: 1:2
Probe: EX3DV4 – SN7464 ConvF(10.21,10.21,10.21)

Area Scan (71x121x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 0.479 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 17.56 V/m; Power Drift = -0.05 dB
Peak SAR (extrapolated) = 0.675 W/kg
SAR(1 g) = 0.386 W/kg; SAR(10 g) = 0.215 W/kg
Maximum value of SAR (measured) = 0.432 W/kg

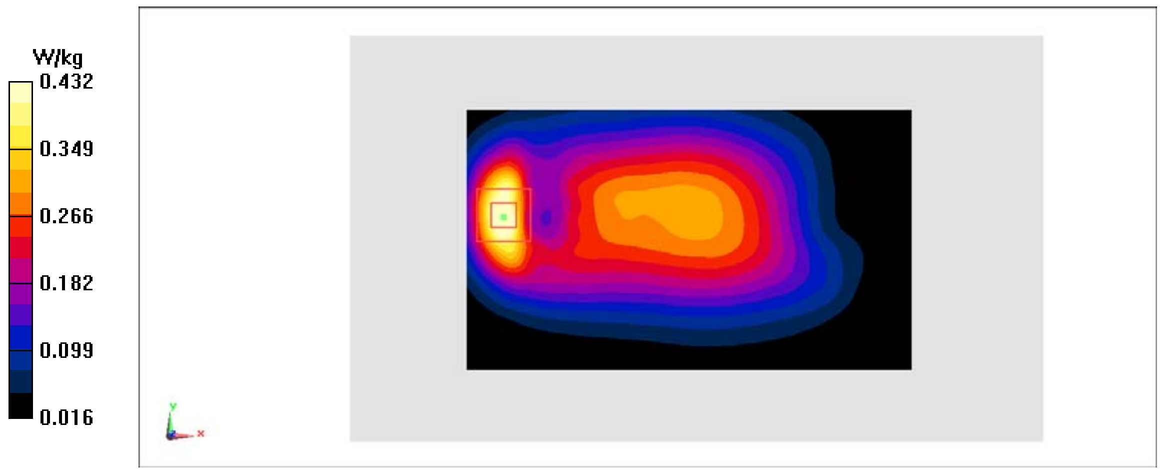


Fig A.2

PCS1900_CH810 Right Cheek
Date: 4/25/2018
Electronics: DAE4 Sn1525
Medium: Head 1900 MHz
Medium parameters used: f = 1909.8 MHz; σ = 1.438 mho/m; εr = 39.98; ρ = 1000 kg/m^3
Ambient Temperature: 22.5°C, Liquid Temperature: 22.3°C
Communication System: PCS1900 1909.8 MHz Duty Cycle: 1:8.3
Probe: EX3DV4 – SN7464 ConvF(8.39,8.39,8.39)

Area Scan (71x121x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 0.312 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 5.723 V/m; Power Drift = -0.11 dB
Peak SAR (extrapolated) = 0.438 W/kg
SAR(1 g) = 0.265 W/kg; SAR(10 g) = 0.153 W/kg
Maximum value of SAR (measured) = 0.293 W/kg

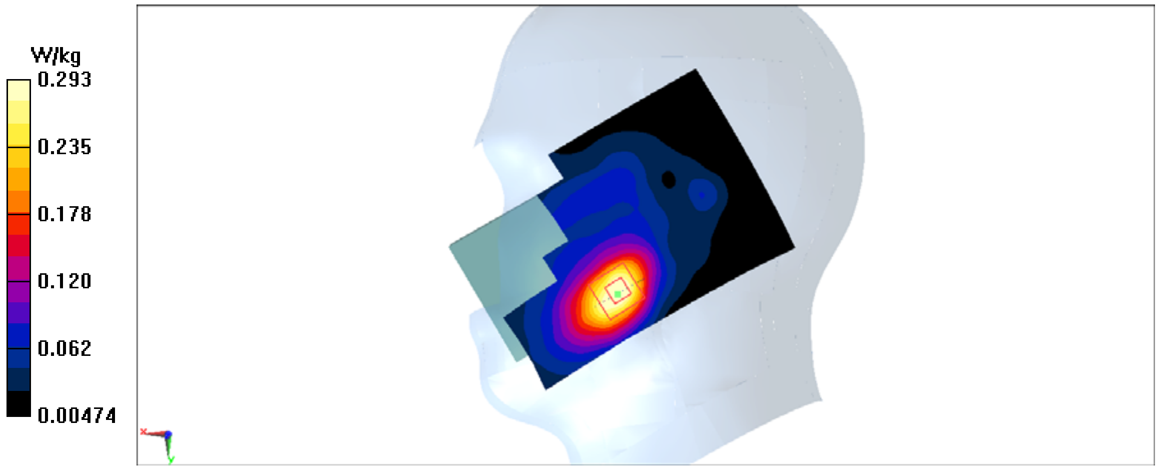


Fig A.3

PCS1900_CH810 Bottom edge
Date: 4/25/2018
Electronics: DAE4 Sn1525
Medium: Head 1900 MHz
Medium parameters used: f = 1909.8 MHz; σ = 1.52 mho/m; εr = 53.1; ρ = 1000 kg/m^3
Ambient Temperature: 22.5°C, Liquid Temperature: 22.3°C
Communication System: PCS1900 1909.8 MHz Duty Cycle: 1:2
Probe: EX3DV4 – SN7464 ConvF(8.32,8.32,8.32)

Area Scan (71x121x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 0.499 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 16.96 V/m; Power Drift = -0.03 dB
Peak SAR (extrapolated) = 0.774 W/kg
SAR(1 g) = 0.424 W/kg; SAR(10 g) = 0.211 W/kg
Maximum value of SAR (measured) = 0.492 W/kg

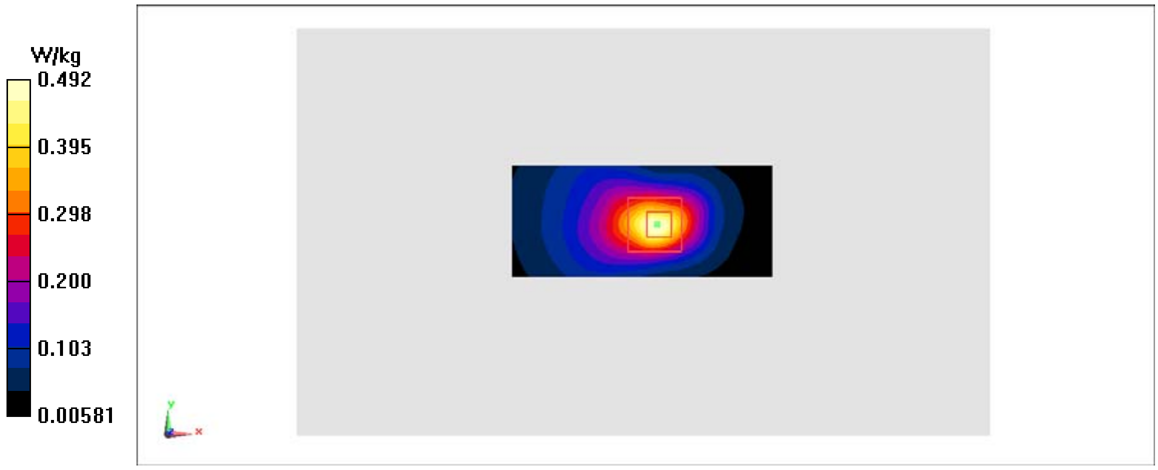


Fig A.4

WCDMA1900-BII_CH9262 Right Cheek
Date: 4/25/2018
Electronics: DAE4 Sn1525
Medium: Head 1900 MHz
Medium parameters used: f = 1852.4 MHz; σ = 1.382 mho/m; εr = 40.05; ρ = 1000 kg/m^3
Ambient Temperature: 22.5°C, Liquid Temperature: 22.3°C
Communication System: WCDMA1900-BII 1852.4 MHz Duty Cycle: 1:1
Probe: EX3DV4 – SN7464 ConvF(8.39,8.39,8.39)

Area Scan (71x121x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 0.6 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 7.12 V/m; Power Drift = 0.01 dB
Peak SAR (extrapolated) = 0.835 W/kg
SAR(1 g) = 0.515 W/kg; SAR(10 g) = 0.301 W/kg
Maximum value of SAR (measured) = 0.564 W/kg

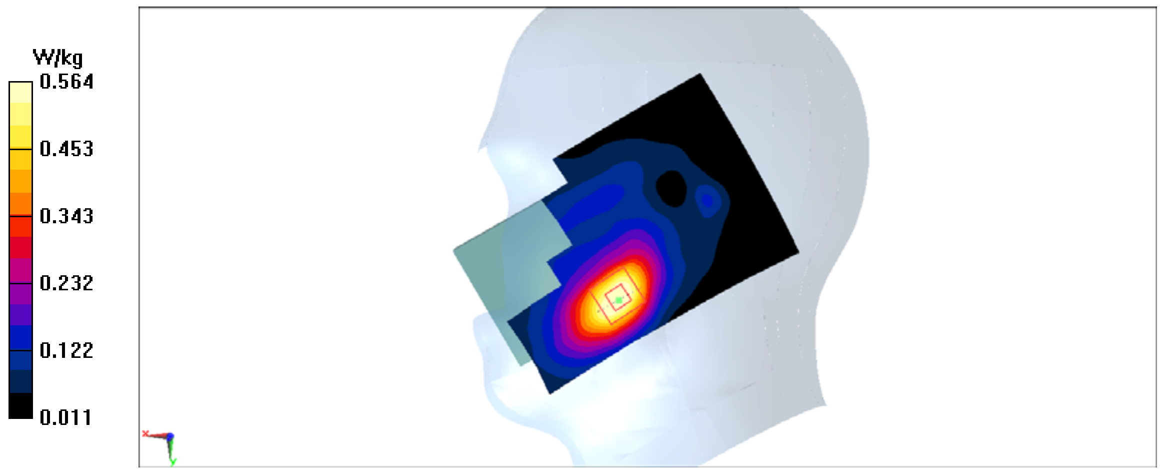


Fig A.5