

Appendix A. SAR Test Result For P_{limit} Calculations

SAR Results for Hotspot Exposure Condition.

Note:

1. SAR testing for LTE / NR was performed on the maximum power mode.
2. The "< 0.001" means there is no SAR value or the SAR is too low to be measured.



Hotspot SAR Test Result

System & Position								DUT Configuration		SAR				Note			
Plot No.	Band	Mode	Test Position	Separation Distance (mm)	Channel	RB#	RB offset	Ant Status	Max. Tune-up Power (dBm)	Measured Conducted Power (dBm)	Scaling Factor	Measured SAR-1g (W/kg)	SAR Design Target	Plimit	Plimit (with Dutycycle)	Minimum	
1	LTE 2	QPSK20M	Front Face	10	18700	1	0	Ant 1	24.00	23.70	1.07	0.771	0.874	24.2	24.2	23.3	
	LTE 2	QPSK20M	Rear Face	10	18700	1	0	Ant 1	24.00	23.70	1.07	0.952	0.874	23.3	23.3		
	LTE 2	QPSK20M	Left Side	10	18700	1	0	Ant 1	24.00	23.70	1.07	0.816	0.874	24	24		
	LTE 2	QPSK20M	Right Side	10	18700	1	0	Ant 1	24.00	23.70	1.07	<0.001	0.874	53.1	53.1		
	LTE 2	QPSK20M	Top Side	10	18700	1	0	Ant 1	24.00	23.70	1.07	0.803	0.874	24.1	24.1		
	LTE 2	QPSK20M	Bottom Side	10	18700	1	0	Ant 1	24.00	23.70	1.07	<0.001	0.874	53.1	53.1		
	LTE 2	QPSK20M	Front Face	10	18700	50	0	Ant 1	23.00	22.54	1.11	0.643	0.874	23.9	23.9		
	LTE 2	QPSK20M	Rear Face	10	18700	50	0	Ant 1	23.00	22.54	1.11	0.671	0.874	23.7	23.7		
	LTE 2	QPSK20M	Left Side	10	18700	50	0	Ant 1	23.00	22.54	1.11	0.634	0.874	23.9	23.9		
	LTE 2	QPSK20M	Right Side	10	18700	50	0	Ant 1	23.00	22.54	1.11	<0.001	0.874	52	52		
	LTE 2	QPSK20M	Top Side	10	18700	50	0	Ant 1	23.00	22.54	1.11	0.622	0.874	24	24		
	LTE 2	QPSK20M	Bottom Side	10	18700	50	0	Ant 1	23.00	22.54	1.11	0.053	0.874	34.7	34.7		
	LTE 2	QPSK20M	Front Face	10	18700	1	0	Ant 2	24.00	23.50	1.12	1.11	0.874	22.5	22.5		21.9
	LTE 2	QPSK20M	Rear Face	10	18700	1	0	Ant 2	24.00	23.50	1.12	1.2	0.874	22.1	22.1		
LTE 2	QPSK20M	Left Side	10	18700	1	0	Ant 2	24.00	23.50	1.12	0.683	0.874	24.6	24.6			
LTE 2	QPSK20M	Right Side	10	18700	1	0	Ant 2	24.00	23.50	1.12	1.27	0.874	21.9	21.9			
LTE 2	QPSK20M	Top Side	10	18700	1	0	Ant 2	24.00	23.50	1.12	1	0.874	22.9	22.9			
LTE 2	QPSK20M	Bottom Side	10	18700	1	0	Ant 2	24.00	23.50	1.12	0.115	0.874	32.3	32.3			
LTE 2	QPSK20M	Front Face	10	18700	50	0	Ant 2	23.00	22.57	1.10	0.954	0.874	22.2	22.2			
LTE 2	QPSK20M	Rear Face	10	18700	50	0	Ant 2	23.00	22.57	1.10	0.97	0.874	22.1	22.1			
LTE 2	QPSK20M	Left Side	10	18700	50	0	Ant 2	23.00	22.57	1.10	0.057	0.874	34.4	34.4			
LTE 2	QPSK20M	Right Side	10	18700	50	0	Ant 2	23.00	22.57	1.10	0.98	0.874	22.1	22.1			
LTE 2	QPSK20M	Top Side	10	18700	50	0	Ant 2	23.00	22.57	1.10	0.802	0.874	22.9	22.9			
LTE 2	QPSK20M	Bottom Side	10	18700	50	0	Ant 2	23.00	22.57	1.10	0.091	0.874	32.4	32.4			
LTE 2	QPSK20M	Right Side	10	18900	1	0	Ant 2	24.00	23.37	1.16	1.2	0.874	22	22			
LTE 2	QPSK20M	Right Side	10	19100	1	0	Ant 2	24.00	23.28	1.18	1.16	0.874	22.1	22.1			



Hotspot SAR Test Result

System & Position								DUT Configuration				SAR				Note			
Plot No.	Band	Mode	Test Position	Separation Distance (mm)	Channel	RB#	RB offset	Ant Status	Max. Tune-up Power (dBm)	Measured Conducted Power (dBm)	Scaling Factor	Measured SAR-1g (W/kg)	SAR Design Target	Plimit	Plimit (with Dutycycle)	Minimum			
3	LTE 4	QPSK20M	Front Face	10	20175	1	0	Ant 1	24.00	23.95	1.01	1.08	0.874	23	23	22.4			
	LTE 4	QPSK20M	Rear Face	10	20175	1	0	Ant 1	24.00	23.95	1.01	1.24	0.874	22.4	22.4				
	LTE 4	QPSK20M	Left Side	10	20175	1	0	Ant 1	24.00	23.95	1.01	1.1	0.874	23	23				
	LTE 4	QPSK20M	Right Side	10	20175	1	0	Ant 1	24.00	23.95	1.01	0.066	0.874	35.2	35.2				
	LTE 4	QPSK20M	Top Side	10	20175	1	0	Ant 1	24.00	23.95	1.01	1.13	0.874	22.8	22.8				
	LTE 4	QPSK20M	Bottom Side	10	20175	1	0	Ant 1	24.00	23.95	1.01	0.107	0.874	33.1	33.1				
	LTE 4	QPSK20M	Front Face	10	20175	50	0	Ant 1	23.00	22.60	1.10	0.876	0.874	22.6	22.6				
	LTE 4	QPSK20M	Rear Face	10	20175	50	0	Ant 1	23.00	22.60	1.10	0.9	0.874	22.5	22.5				
	LTE 4	QPSK20M	Left Side	10	20175	50	0	Ant 1	23.00	22.60	1.10	0.714	0.874	23.5	23.5				
	LTE 4	QPSK20M	Right Side	10	20175	50	0	Ant 1	23.00	22.60	1.10	0.059	0.874	34.3	34.3				
	LTE 4	QPSK20M	Top Side	10	20175	50	0	Ant 1	23.00	22.60	1.10	0.878	0.874	22.6	22.6				
	LTE 4	QPSK20M	Bottom Side	10	20175	50	0	Ant 1	23.00	22.60	1.10	0.08	0.874	33	33				
	LTE 4	QPSK20M	Front Face	10	20175	1	0	Ant 2	24.00	23.45	1.14	0.96	0.874	23	23				
	LTE 4	QPSK20M	Rear Face	10	20175	1	0	Ant 2	24.00	23.45	1.14	1.12	0.874	22.4	22.4				
4	LTE 4	QPSK20M	Left Side	10	20175	1	0	Ant 2	24.00	23.45	1.14	0.092	0.874	33.2	33.2	22.4			
	LTE 4	QPSK20M	Right Side	10	20175	1	0	Ant 2	24.00	23.45	1.14	0.94	0.874	23.1	23.1				
	LTE 4	QPSK20M	Top Side	10	20175	1	0	Ant 2	24.00	23.45	1.14	0.899	0.874	23.3	23.3				
	LTE 4	QPSK20M	Bottom Side	10	20175	1	0	Ant 2	24.00	23.45	1.14	0.104	0.874	32.7	32.7				
	LTE 4	QPSK20M	Front Face	10	20175	50	0	Ant 2	23.00	22.60	1.10	0.784	0.874	23.1	23.1				
	LTE 4	QPSK20M	Rear Face	10	20175	50	0	Ant 2	23.00	22.60	1.10	0.882	0.874	22.6	22.6				
	LTE 4	QPSK20M	Left Side	10	20175	50	0	Ant 2	23.00	22.60	1.10	0.074	0.874	33.3	33.3				
	LTE 4	QPSK20M	Right Side	10	20175	50	0	Ant 2	23.00	22.60	1.10	0.902	0.874	22.5	22.5				
	LTE 4	QPSK20M	Top Side	10	20175	50	0	Ant 2	23.00	22.60	1.10	0.71	0.874	23.5	23.5				
	LTE 4	QPSK20M	Bottom Side	10	20175	50	0	Ant 2	23.00	22.60	1.10	0.079	0.874	33	33				
	LTE 4	QPSK20M	Rear Face	10	20050	1	0	Ant 1	24.00	23.75	1.06	1.18	0.874	22.4	22.4				
	LTE 4	QPSK20M	Rear Face	10	20300	1	0	Ant 1	24.00	23.91	1.02	1.13	0.874	22.8	22.8				



Hotspot SAR Test Result

System & Position								DUT Configuration				SAR			Note		
Plot No.	Band	Mode	Test Position	Separation Distance (mm)	Channel	RB#	RB offset	Ant Status	Max. Tune-up Power (dBm)	Measured Conducted Power (dBm)	Scaling Factor	Measured SAR-1g (W/kg)	SAR Design Target	Plimit	Plimit (with Dutycycle)	Minimum	
5	LTE 5	QPSK10M	Front Face	10	20450	1	0	Ant 1	24.00	23.86	1.03	0.625	0.874	25.3	25.3	25.2	
	LTE 5	QPSK10M	Rear Face	10	20450	1	0	Ant 1	24.00	23.86	1.03	0.646	0.874	25.2	25.2		
	LTE 5	QPSK10M	Left Side	10	20450	1	0	Ant 1	24.00	23.86	1.03	0.339	0.874	28	28		
	LTE 5	QPSK10M	Right Side	10	20450	1	0	Ant 1	24.00	23.86	1.03	<0.001	0.874	53.3	53.3		
	LTE 5	QPSK10M	Top Side	10	20450	1	0	Ant 1	24.00	23.86	1.03	0.231	0.874	29.6	29.6		
	LTE 5	QPSK10M	Bottom Side	10	20450	1	0	Ant 1	24.00	23.86	1.03	0.068	0.874	35	35		
	LTE 5	QPSK10M	Front Face	10	20450	25	0	Ant 1	23.00	22.63	1.09	0.445	0.874	25.6	25.6		
	LTE 5	QPSK10M	Rear Face	10	20450	25	0	Ant 1	23.00	22.63	1.09	0.449	0.874	25.5	25.5		
	LTE 5	QPSK10M	Left Side	10	20450	25	0	Ant 1	23.00	22.63	1.09	0.274	0.874	27.7	27.7		
	LTE 5	QPSK10M	Right Side	10	20450	25	0	Ant 1	23.00	22.63	1.09	<0.001	0.874	52	52		
	LTE 5	QPSK10M	Top Side	10	20450	25	0	Ant 1	23.00	22.63	1.09	0.171	0.874	29.7	29.7		
	LTE 5	QPSK10M	Bottom Side	10	20450	25	0	Ant 1	23.00	22.63	1.09	<0.001	0.874	52	52		
6	LTE 5	QPSK10M	Front Face	10	20450	1	0	Ant 2	24.00	23.33	1.17	0.376	0.874	27	27	26.5	
	LTE 5	QPSK10M	Rear Face	10	20450	1	0	Ant 2	24.00	23.33	1.17	0.425	0.874	26.5	26.5		
	LTE 5	QPSK10M	Left Side	10	20450	1	0	Ant 2	24.00	23.33	1.17	<0.001	0.874	52.7	52.7		
	LTE 5	QPSK10M	Right Side	10	20450	1	0	Ant 2	24.00	23.33	1.17	0.222	0.874	29.3	29.3		
	LTE 5	QPSK10M	Top Side	10	20450	1	0	Ant 2	24.00	23.33	1.17	0.153	0.874	30.9	30.9		
	LTE 5	QPSK10M	Bottom Side	10	20450	1	0	Ant 2	24.00	23.33	1.17	<0.001	0.874	52.7	52.7		
	LTE 5	QPSK10M	Front Face	10	20450	25	0	Ant 2	23.00	22.22	1.20	0.299	0.874	26.9	26.9		
	LTE 5	QPSK10M	Rear Face	10	20450	25	0	Ant 2	23.00	22.22	1.20	0.304	0.874	26.8	26.8		
	LTE 5	QPSK10M	Left Side	10	20450	25	0	Ant 2	23.00	22.22	1.20	<0.001	0.874	51.6	51.6		
	LTE 5	QPSK10M	Right Side	10	20450	25	0	Ant 2	23.00	22.22	1.20	0.215	0.874	28.3	28.3		
	LTE 5	QPSK10M	Top Side	10	20450	25	0	Ant 2	23.00	22.22	1.20	0.121	0.874	30.8	30.8		
	LTE 5	QPSK10M	Bottom Side	10	20450	25	0	Ant 2	23.00	22.22	1.20	<0.001	0.874	51.6	51.6		
	LTE 5	QPSK10M	Rear Face	10	20525	1	0	Ant 1	24.00	23.79	1.05	0.422	0.874	27	27	25.2	
	LTE 5	QPSK10M	Rear Face	10	20600	1	0	Ant 1	24.00	23.62	1.09	0.416	0.874	26.8	26.8		
8	LTE 7	QPSK20M	Front Face	10	21350	1	0	Ant 2	24.00	23.71	1.07	1.17	0.874	22.4	22.4	21.4	
	LTE 7	QPSK20M	Rear Face	10	21350	1	0	Ant 2	24.00	23.71	1.07	1.27	0.874	22.1	22.1		
	LTE 7	QPSK20M	Left Side	10	21350	1	0	Ant 2	24.00	23.71	1.07	<0.001	0.874	53.1	53.1		
	LTE 7	QPSK20M	Right Side	10	21350	1	0	Ant 2	24.00	23.71	1.07	1.49	0.874	21.4	21.4		
	LTE 7	QPSK20M	Top Side	10	21350	1	0	Ant 2	24.00	23.71	1.07	0.743	0.874	24.4	24.4		
	LTE 7	QPSK20M	Bottom Side	10	21350	1	0	Ant 2	24.00	23.71	1.07	0.075	0.874	34.4	34.4		
	LTE 7	QPSK20M	Front Face	10	21350	50	0	Ant 2	23.00	22.56	1.11	0.973	0.874	22.1	22.1		
	LTE 7	QPSK20M	Rear Face	10	21350	50	0	Ant 2	23.00	22.56	1.11	1.05	0.874	21.8	21.8		
	LTE 7	QPSK20M	Left Side	10	21350	50	0	Ant 2	23.00	22.56	1.11	<0.001	0.874	52	52		
	LTE 7	QPSK20M	Right Side	10	21350	50	0	Ant 2	23.00	22.56	1.11	1.14	0.874	21.4	21.4		
	LTE 7	QPSK20M	Top Side	10	21350	50	0	Ant 2	23.00	22.56	1.11	0.618	0.874	24.1	24.1		
	LTE 7	QPSK20M	Bottom Side	10	21350	50	0	Ant 2	23.00	22.56	1.11	0.062	0.874	34.1	34.1		
	LTE 7	QPSK20M	Right Side	10	20850	1	0	Ant 2	24.00	23.42	1.14	1.38	0.874	21.4	21.4		
	LTE 7	QPSK20M	Right Side	10	21100	1	0	Ant 2	24.00	23.66	1.08	1.31	0.874	21.9	21.9		



Hotspot SAR Test Result

System & Position								DUT Configuration		SAR				Note		
Plot No.	Band	Mode	Test Position	Separation Distance (mm)	Channel	RB#	RB offset	Ant Status	Max. Tune-up Power (dBm)	Measured Conducted Power (dBm)	Scaling Factor	Measured SAR-1g (W/kg)	SAR Design Target	Plimit	Plimit (with Dutycycle)	Minimum
9	LTE 12	QPSK10M	Front Face	10	23095	1	0	Ant 1	24.00	22.88	1.29	0.706	0.874	23.8	23.8	23.8
	LTE 12	QPSK10M	Rear Face	10	23095	1	0	Ant 1	24.00	22.88	1.29	0.695	0.874	23.9	23.9	
	LTE 12	QPSK10M	Left Side	10	23095	1	0	Ant 1	24.00	22.88	1.29	0.324	0.874	27.2	27.2	
	LTE 12	QPSK10M	Right Side	10	23095	1	0	Ant 1	24.00	22.88	1.29	0.072	0.874	33.7	33.7	
	LTE 12	QPSK10M	Top Side	10	23095	1	0	Ant 1	24.00	22.88	1.29	0.173	0.874	29.9	29.9	
	LTE 12	QPSK10M	Bottom Side	10	23095	1	0	Ant 1	24.00	22.88	1.29	0.077	0.874	33.4	33.4	
	LTE 12	QPSK10M	Front Face	10	23095	25	0	Ant 1	23.00	21.62	1.37	0.515	0.874	23.9	23.9	
	LTE 12	QPSK10M	Rear Face	10	23095	25	0	Ant 1	23.00	21.62	1.37	0.507	0.874	24	24	
	LTE 12	QPSK10M	Left Side	10	23095	25	0	Ant 1	23.00	21.62	1.37	0.269	0.874	26.7	26.7	
	LTE 12	QPSK10M	Right Side	10	23095	25	0	Ant 1	23.00	21.62	1.37	0.06	0.874	33.3	33.3	
	LTE 12	QPSK10M	Top Side	10	23095	25	0	Ant 1	23.00	21.62	1.37	0.144	0.874	29.5	29.5	
	LTE 12	QPSK10M	Bottom Side	10	23095	25	0	Ant 1	23.00	21.62	1.37	0.063	0.874	33	33	
	LTE 12	QPSK10M	Front Face	10	23060	1	0	Ant 1	24.00	22.79	1.32	0.678	0.874	23.9	23.9	
	LTE 12	QPSK10M	Front Face	10	23130	1	0	Ant 1	24.00	22.77	1.33	0.639	0.874	24.1	24.1	
10	LTE 14	QPSK10M	Front Face	10	23330	1	0	Ant 1	24.00	22.81	1.32	0.56	0.874	24.7	24.7	24.7
	LTE 14	QPSK10M	Rear Face	10	23330	1	0	Ant 1	24.00	22.81	1.32	0.551	0.874	24.8	24.8	
	LTE 14	QPSK10M	Left Side	10	23330	1	0	Ant 1	24.00	22.81	1.32	0.257	0.874	28.1	28.1	
	LTE 14	QPSK10M	Right Side	10	23330	1	0	Ant 1	24.00	22.81	1.32	0.056	0.874	34.7	34.7	
	LTE 14	QPSK10M	Top Side	10	23330	1	0	Ant 1	24.00	22.81	1.32	0.137	0.874	30.9	30.9	
	LTE 14	QPSK10M	Bottom Side	10	23330	1	0	Ant 1	24.00	22.81	1.32	0.06	0.874	34.4	34.4	
	LTE 14	QPSK10M	Front Face	10	23330	25	0	Ant 1	23.00	21.65	1.36	0.435	0.874	24.7	24.7	
	LTE 14	QPSK10M	Rear Face	10	23330	25	0	Ant 1	23.00	21.65	1.36	0.429	0.874	24.7	24.7	
	LTE 14	QPSK10M	Left Side	10	23330	25	0	Ant 1	23.00	21.65	1.36	0.2	0.874	28.1	28.1	
	LTE 14	QPSK10M	Right Side	10	23330	25	0	Ant 1	23.00	21.65	1.36	0.044	0.874	34.6	34.6	
	LTE 14	QPSK10M	Top Side	10	23330	25	0	Ant 1	23.00	21.65	1.36	0.107	0.874	30.8	30.8	
	LTE 14	QPSK10M	Bottom Side	10	23330	25	0	Ant 1	23.00	21.65	1.36	0.046	0.874	34.4	34.4	



Hotspot SAR Test Result

System & Position								DUT Configuration				SAR			Note	
Plot No.	Band	Mode	Test Position	Separation Distance (mm)	Channel	RB#	RB offset	Ant Status	Max. Tune-up Power (dBm)	Measured Conducted Power (dBm)	Scaling Factor	Measured SAR-1g (W/kg)	SAR Design Target	Plimit	Plimit (with Dutycycle)	Minimum
	LTE 30	QPSK10M	Front Face	10	27710	1	0	Ant 1	24.00	22.85	1.30	1.11	0.874	21.8	21.8	21.3
	LTE 30	QPSK10M	Rear Face	10	27710	1	0	Ant 1	24.00	22.85	1.30	1.17	0.874	21.6	21.6	
	LTE 30	QPSK10M	Left Side	10	27710	1	0	Ant 1	24.00	22.85	1.30	0.821	0.874	23.1	23.1	
	LTE 30	QPSK10M	Right Side	10	27710	1	0	Ant 1	24.00	22.85	1.30	<0.001	0.874	52.3	52.3	
11	LTE 30	QPSK10M	Top Side	10	27710	1	0	Ant 1	24.00	22.85	1.30	1.26	0.874	21.3	21.3	
	LTE 30	QPSK10M	Bottom Side	10	27710	1	0	Ant 1	24.00	22.85	1.30	0.058	0.874	34.6	34.6	
	LTE 30	QPSK10M	Front Face	10	27710	25	0	Ant 1	23.00	22.03	1.25	1.04	0.874	21.3	21.3	
	LTE 30	QPSK10M	Rear Face	10	27710	25	0	Ant 1	23.00	22.03	1.25	1.01	0.874	21.4	21.4	
	LTE 30	QPSK10M	Left Side	10	27710	25	0	Ant 1	23.00	22.03	1.25	0.813	0.874	22.3	22.3	
	LTE 30	QPSK10M	Right Side	10	27710	25	0	Ant 1	23.00	22.03	1.25	<0.001	0.874	51.4	51.4	
	LTE 30	QPSK10M	Top Side	10	27710	25	0	Ant 1	23.00	22.03	1.25	1.01	0.874	21.4	21.4	
	LTE 30	QPSK10M	Bottom Side	10	27710	25	0	Ant 1	23.00	22.03	1.25	0.058	0.874	33.8	33.8	
	LTE 30	QPSK10M	Front Face	10	27710	1	0	Ant 2	20.50	20.32	1.04	0.698	0.874	21.3	21.3	21
	LTE 30	QPSK10M	Rear Face	10	27710	1	0	Ant 2	20.50	20.32	1.04	0.684	0.874	21.4	21.4	
	LTE 30	QPSK10M	Left Side	10	27710	1	0	Ant 2	20.50	20.32	1.04	<0.001	0.874	49.7	49.7	
	LTE 30	QPSK10M	Right Side	10	27710	1	0	Ant 2	20.50	20.32	1.04	0.615	0.874	21.8	21.8	
	LTE 30	QPSK10M	Top Side	10	27710	1	0	Ant 2	20.50	20.32	1.04	0.528	0.874	22.5	22.5	
	LTE 30	QPSK10M	Bottom Side	10	27710	1	0	Ant 2	20.50	20.32	1.04	0.029	0.874	35.1	35.1	
	LTE 30	QPSK10M	Front Face	10	27710	25	0	Ant 2	19.50	18.87	1.16	0.537	0.874	21	21	
	LTE 30	QPSK10M	Rear Face	10	27710	25	0	Ant 2	19.50	18.87	1.16	0.523	0.874	21.1	21.1	
	LTE 30	QPSK10M	Left Side	10	27710	25	0	Ant 2	19.50	18.87	1.16	<0.001	0.874	48.3	48.3	
	LTE 30	QPSK10M	Right Side	10	27710	25	0	Ant 2	19.50	18.87	1.16	0.472	0.874	21.5	21.5	
	LTE 30	QPSK10M	Top Side	10	27710	25	0	Ant 2	19.50	18.87	1.16	0.406	0.874	22.2	22.2	
	LTE 30	QPSK10M	Bottom Side	10	27710	25	0	Ant 2	19.50	18.87	1.16	0.022	0.874	34.9	34.9	
	LTE 40	QPSK20M	Front Face	10	39150	1	0	Ant 2	20.50	20.24	1.06	0.391	0.874	23.7	23.7	23
	LTE 40	QPSK20M	Rear Face	10	39150	1	0	Ant 2	20.50	20.24	1.06	0.431	0.874	23.3	23.3	
	LTE 40	QPSK20M	Left Side	10	39150	1	0	Ant 2	20.50	20.24	1.06	<0.001	0.874	49.7	49.7	
	LTE 40	QPSK20M	Right Side	10	39150	1	0	Ant 2	20.50	20.24	1.06	0.355	0.874	24.2	24.2	
	LTE 40	QPSK20M	Top Side	10	39150	1	0	Ant 2	20.50	20.24	1.06	0.31	0.874	24.7	24.7	
	LTE 40	QPSK20M	Bottom Side	10	39150	1	0	Ant 2	20.50	20.24	1.06	0.024	0.874	35.9	35.9	
	LTE 40	QPSK20M	Front Face	10	39150	50	0	Ant 2	19.50	19.08	1.10	0.325	0.874	23.4	23.4	
	LTE 40	QPSK20M	Rear Face	10	39150	50	0	Ant 2	19.50	19.08	1.10	0.353	0.874	23	23	
	LTE 40	QPSK20M	Left Side	10	39150	50	0	Ant 2	19.50	19.08	1.10	<0.001	0.874	48.5	48.5	
	LTE 40	QPSK20M	Right Side	10	39150	50	0	Ant 2	19.50	19.08	1.10	0.29	0.874	23.9	23.9	
	LTE 40	QPSK20M	Top Side	10	39150	50	0	Ant 2	19.50	19.08	1.10	0.248	0.874	24.6	24.6	
	LTE 40	QPSK20M	Bottom Side	10	39150	50	0	Ant 2	19.50	19.08	1.10	<0.001	0.874	48.5	48.5	
	LTE 40	QPSK20M	Rear Face	10	38750	1	0	Ant 2	20.50	20.05	1.11	0.423	0.874	23.2	23.2	
	LTE 40	QPSK20M	Rear Face	10	39550	1	0	Ant 2	20.50	20.04	1.11	0.417	0.874	23.3	23.3	



Hotspot SAR Test Result

System & Position								DUT Configuration				SAR			Note		
Plot No.	Band	Mode	Test Position	Separation Distance (mm)	Channel	RB#	RB offset	Ant Status	Max. Tune-up Power (dBm)	Measured Conducted Power (dBm)	Scaling Factor	Measured SAR-1g (W/kg)	SAR Design Target	Plimit	Plimit (with Dutycycle)	Minimum	
15	LTE 48	QPSK20M	Front Face	10	56210	1	0	Ant 1	24.00	23.93	1.02	1.08	0.874	23	23	21.4	
	LTE 48	QPSK20M	Rear Face	10	56210	1	0	Ant 1	24.00	23.93	1.02	1.15	0.874	22.7	22.7		
	LTE 48	QPSK20M	Left Side	10	56210	1	0	Ant 1	24.00	23.93	1.02	1.58	0.874	21.4	21.4		
	LTE 48	QPSK20M	Right Side	10	56210	1	0	Ant 1	24.00	23.93	1.02	0.08	0.874	34.3	34.3		
	LTE 48	QPSK20M	Top Side	10	56210	1	0	Ant 1	24.00	23.93	1.02	0.344	0.874	28	28		
	LTE 48	QPSK20M	Bottom Side	10	56210	1	0	Ant 1	24.00	23.93	1.02	0.086	0.874	34	34		
	LTE 48	QPSK20M	Front Face	10	56210	50	0	Ant 1	23.00	22.63	1.09	0.856	0.874	22.7	22.7		
	LTE 48	QPSK20M	Rear Face	10	56210	50	0	Ant 1	23.00	22.63	1.09	0.91	0.874	22.5	22.5		
	LTE 48	QPSK20M	Left Side	10	56210	50	0	Ant 1	23.00	22.63	1.09	1.14	0.874	21.5	21.5		
	LTE 48	QPSK20M	Right Side	10	56210	50	0	Ant 1	23.00	22.63	1.09	0.068	0.874	33.7	33.7		
	LTE 48	QPSK20M	Top Side	10	56210	50	0	Ant 1	23.00	22.63	1.09	0.283	0.874	27.5	27.5		
	LTE 48	QPSK20M	Bottom Side	10	56210	50	0	Ant 1	23.00	22.63	1.09	0.073	0.874	33.4	33.4		
	LTE 48	QPSK20M	Left Side	10	55340	1	0	Ant 1	24.00	23.67	1.08	1.44	0.874	21.5	21.5		
	LTE 48	QPSK20M	Left Side	10	55780	1	0	Ant 1	24.00	23.88	1.03	1.54	0.874	21.4	21.4		
	LTE 48	QPSK20M	Left Side	10	56640	1	0	Ant 1	24.00	23.45	1.14	1.39	0.874	21.4	21.4		
17	LTE 66	QPSK20M	Front Face	10	132572	1	0	Ant 1	24.00	23.98	1.00	1.14	0.874	22.8	22.8	22.6	
	LTE 66	QPSK20M	Rear Face	10	132572	1	0	Ant 1	24.00	23.98	1.00	1.18	0.874	22.7	22.7		
	LTE 66	QPSK20M	Left Side	10	132572	1	0	Ant 1	24.00	23.98	1.00	1.21	0.874	22.6	22.6		
	LTE 66	QPSK20M	Right Side	10	132572	1	0	Ant 1	24.00	23.98	1.00	0.046	0.874	36.8	36.8		
	LTE 66	QPSK20M	Top Side	10	132572	1	0	Ant 1	24.00	23.98	1.00	0.994	0.874	23.4	23.4		
	LTE 66	QPSK20M	Bottom Side	10	132572	1	0	Ant 1	24.00	23.98	1.00	0.109	0.874	33	33		
	LTE 66	QPSK20M	Front Face	10	132572	50	0	Ant 1	23.00	22.86	1.03	0.837	0.874	23	23		
	LTE 66	QPSK20M	Rear Face	10	132572	50	0	Ant 1	23.00	22.86	1.03	0.856	0.874	23	23		
	LTE 66	QPSK20M	Left Side	10	132572	50	0	Ant 1	23.00	22.86	1.03	0.859	0.874	22.9	22.9		
	LTE 66	QPSK20M	Right Side	10	132572	50	0	Ant 1	23.00	22.86	1.03	<0.001	0.874	52.3	52.3		
	LTE 66	QPSK20M	Top Side	10	132572	50	0	Ant 1	23.00	22.86	1.03	0.675	0.874	24	24		
LTE 66	QPSK20M	Bottom Side	10	132572	50	0	Ant 1	23.00	22.86	1.03	0.059	0.874	34.6	34.6			
18	LTE 66	QPSK20M	Front Face	10	132572	1	0	Ant 2	24.00	23.67	1.08	0.666	0.874	24.9	24.9	23.9	
	LTE 66	QPSK20M	Rear Face	10	132572	1	0	Ant 2	24.00	23.67	1.08	0.836	0.874	23.9	23.9		
	LTE 66	QPSK20M	Left Side	10	132572	1	0	Ant 2	24.00	23.67	1.08	0.061	0.874	35.2	35.2		
	LTE 66	QPSK20M	Right Side	10	132572	1	0	Ant 2	24.00	23.67	1.08	0.821	0.874	23.9	23.9		
	LTE 66	QPSK20M	Top Side	10	132572	1	0	Ant 2	24.00	23.67	1.08	0.6	0.874	25.3	25.3		
	LTE 66	QPSK20M	Bottom Side	10	132572	1	0	Ant 2	24.00	23.67	1.08	0.067	0.874	34.8	34.8		
	LTE 66	QPSK20M	Front Face	10	132572	50	0	Ant 2	23.00	22.63	1.09	0.491	0.874	25.1	25.1		
	LTE 66	QPSK20M	Rear Face	10	132572	50	0	Ant 2	23.00	22.63	1.09	0.616	0.874	24.1	24.1		
	LTE 66	QPSK20M	Left Side	10	132572	50	0	Ant 2	23.00	22.63	1.09	0.045	0.874	35.5	35.5		
	LTE 66	QPSK20M	Right Side	10	132572	50	0	Ant 2	23.00	22.63	1.09	0.605	0.874	24.2	24.2		
	LTE 66	QPSK20M	Top Side	10	132572	50	0	Ant 2	23.00	22.63	1.09	0.442	0.874	25.6	25.6		
	LTE 66	QPSK20M	Bottom Side	10	132572	50	0	Ant 2	23.00	22.63	1.09	0.05	0.874	35.1	35.1		
	LTE 66	QPSK20M	Left Side	10	132072	1	0	Ant 1	24.00	23.76	1.06	1.15	0.874	22.6	22.6		
LTE 66	QPSK20M	Left Side	10	132322	1	0	Ant 1	24.00	23.88	1.03	1.11	0.874	22.8	22.8			



Hotspot SAR Test Result

System & Position								DUT Configuration				SAR			Note		
Plot No.	Band	Mode	Test Position	Separation Distance (mm)	Channel	RB#	RB offset	Ant Status	Max. Tune-up Power (dBm)	Measured Conducted Power (dBm)	Scaling Factor	Measured SAR-1g (W/kg)	SAR Design Target	Plimit	Plimit (with Dutycycle)	Minimum	
19	5GNR-n2	DFT-S QPSK20M	Front Face	10	372000	1	1	Ant 1	24.00	23.94	1.01	0.968	0.874	23.5	23.5	23	
	5GNR-n2	DFT-S QPSK20M	Rear Face	10	372000	1	1	Ant 1	24.00	23.94	1.01	1.08	0.874	23	23		
	5GNR-n2	DFT-S QPSK20M	Left Side	10	372000	1	1	Ant 1	24.00	23.94	1.01	1.03	0.874	23.2	23.2		
	5GNR-n2	DFT-S QPSK20M	Right Side	10	372000	1	1	Ant 1	24.00	23.94	1.01	<0.001	0.874	53.4	53.4		
	5GNR-n2	DFT-S QPSK20M	Top Side	10	372000	1	1	Ant 1	24.00	23.94	1.01	0.975	0.874	23.5	23.5		
	5GNR-n2	DFT-S QPSK20M	Bottom Side	10	372000	1	1	Ant 1	24.00	23.94	1.01	0.096	0.874	33.5	33.5		
	5GNR-n2	DFT-S QPSK20M	Front Face	10	372000	50	28	Ant 1	24.00	23.72	1.07	0.92	0.874	23.5	23.5		
	5GNR-n2	DFT-S QPSK20M	Rear Face	10	372000	50	28	Ant 1	24.00	23.72	1.07	1.01	0.874	23.1	23.1		
	5GNR-n2	DFT-S QPSK20M	Left Side	10	372000	50	28	Ant 1	24.00	23.72	1.07	0.987	0.874	23.2	23.2		
	5GNR-n2	DFT-S QPSK20M	Right Side	10	372000	50	28	Ant 1	24.00	23.72	1.07	<0.001	0.874	53.1	53.1		
	5GNR-n2	DFT-S QPSK20M	Top Side	10	372000	50	28	Ant 1	24.00	23.72	1.07	0.927	0.874	23.5	23.5		
	5GNR-n2	DFT-S QPSK20M	Bottom Side	10	372000	50	28	Ant 1	24.00	23.72	1.07	0.091	0.874	33.5	33.5		
	20	5GNR-n2	DFT-S QPSK20M	Front Face	10	372000	1	1	Ant 2	24.00	23.14	1.22	1.02	0.874	22.5		22.5
5GNR-n2		DFT-S QPSK20M	Rear Face	10	372000	1	1	Ant 2	24.00	23.14	1.22	1.25	0.874	21.6	21.6		
5GNR-n2		DFT-S QPSK20M	Left Side	10	372000	1	1	Ant 2	24.00	23.14	1.22	0.071	0.874	34	34		
5GNR-n2		DFT-S QPSK20M	Right Side	10	372000	1	1	Ant 2	24.00	23.14	1.22	1.21	0.874	21.7	21.7		
5GNR-n2		DFT-S QPSK20M	Top Side	10	372000	1	1	Ant 2	24.00	23.14	1.22	0.866	0.874	23.2	23.2		
5GNR-n2		DFT-S QPSK20M	Bottom Side	10	372000	1	1	Ant 2	24.00	23.14	1.22	0.092	0.874	32.9	32.9		
5GNR-n2		DFT-S QPSK20M	Front Face	10	372000	50	28	Ant 2	24.00	22.92	1.28	0.898	0.874	22.8	22.8		
5GNR-n2		DFT-S QPSK20M	Rear Face	10	372000	50	28	Ant 2	24.00	22.92	1.28	1.09	0.874	22	22		
5GNR-n2		DFT-S QPSK20M	Left Side	10	372000	50	28	Ant 2	24.00	22.92	1.28	0.062	0.874	34.4	34.4		
5GNR-n2		DFT-S QPSK20M	Right Side	10	372000	50	28	Ant 2	24.00	22.92	1.28	1.06	0.874	22.1	22.1		
5GNR-n2		DFT-S QPSK20M	Top Side	10	372000	50	28	Ant 2	24.00	22.92	1.28	0.759	0.874	23.5	23.5		
5GNR-n2		DFT-S QPSK20M	Bottom Side	10	372000	50	28	Ant 2	24.00	22.92	1.28	0.079	0.874	33.4	33.4		
5GNR-n2		DFT-S QPSK20M	Rear Face	10	376000	1	1	Ant 2	24.00	22.96	1.27	1.13	0.874	21.8	21.8		
5GNR-n2	DFT-S QPSK20M	Rear Face	10	380000	1	1	Ant 2	24.00	23.02	1.25	1.18	0.874	21.7	21.7			
21	5GNR-n5	DFT-S QPSK20M	Front Face	10	167800	1	1	Ant 1	24.00	23.95	1.01	0.613	0.874	25.5	25.5	25.5	
	5GNR-n5	DFT-S QPSK20M	Rear Face	10	167800	1	1	Ant 1	24.00	23.95	1.01	0.595	0.874	25.6	25.6		
	5GNR-n5	DFT-S QPSK20M	Left Side	10	167800	1	1	Ant 1	24.00	23.95	1.01	0.334	0.874	28.1	28.1		
	5GNR-n5	DFT-S QPSK20M	Right Side	10	167800	1	1	Ant 1	24.00	23.95	1.01	0.051	0.874	36.3	36.3		
	5GNR-n5	DFT-S QPSK20M	Top Side	10	167800	1	1	Ant 1	24.00	23.95	1.01	0.2	0.874	30.4	30.4		
	5GNR-n5	DFT-S QPSK20M	Bottom Side	10	167800	1	1	Ant 1	24.00	23.95	1.01	0.068	0.874	35	35		
	5GNR-n5	DFT-S QPSK20M	Front Face	10	167800	50	28	Ant 1	24.00	23.93	1.02	0.574	0.874	25.8	25.8		
	5GNR-n5	DFT-S QPSK20M	Rear Face	10	167800	50	28	Ant 1	24.00	23.93	1.02	0.557	0.874	25.9	25.9		
	5GNR-n5	DFT-S QPSK20M	Left Side	10	167800	50	28	Ant 1	24.00	23.93	1.02	0.312	0.874	28.4	28.4		
	5GNR-n5	DFT-S QPSK20M	Right Side	10	167800	50	28	Ant 1	24.00	23.93	1.02	0.048	0.874	36.5	36.5		
	5GNR-n5	DFT-S QPSK20M	Top Side	10	167800	50	28	Ant 1	24.00	23.93	1.02	0.188	0.874	30.6	30.6		
	5GNR-n5	DFT-S QPSK20M	Bottom Side	10	167800	50	28	Ant 1	24.00	23.93	1.02	0.063	0.874	35.4	35.4		
	5GNR-n5	DFT-S QPSK20M	Front Face	10	166800	1	1	Ant 1	24.00	23.90	1.02	0.587	0.874	25.6	25.6		
5GNR-n5	DFT-S QPSK20M	Front Face	10	167300	1	1	Ant 1	24.00	23.80	1.05	0.563	0.874	25.7	25.7			



Hotspot SAR Test Result

System & Position								DUT Configuration		SAR				Note		
Plot No.	Band	Mode	Test Position	Separation Distance (mm)	Channel	RB#	RB offset	Ant Status	Max. Tune-up Power (dBm)	Measured Conducted Power (dBm)	Scaling Factor	Measured SAR-1g (W/kg)	SAR Design Target	Plimit	Plimit (with Dutycycle)	Minimum
23	5GNR-n12	DFT-S QPSK15M	Front Face	10	141500	1	1	Ant 1	24.00	23.62	1.09	0.809	0.874	24	24	24
	5GNR-n12	DFT-S QPSK15M	Rear Face	10	141500	1	1	Ant 1	24.00	23.62	1.09	0.783	0.874	24.1	24.1	
	5GNR-n12	DFT-S QPSK15M	Left Side	10	141500	1	1	Ant 1	24.00	23.62	1.09	0.395	0.874	27.1	27.1	
	5GNR-n12	DFT-S QPSK15M	Right Side	10	141500	1	1	Ant 1	24.00	23.62	1.09	0.104	0.874	32.9	32.9	
	5GNR-n12	DFT-S QPSK15M	Top Side	10	141500	1	1	Ant 1	24.00	23.62	1.09	0.201	0.874	30	30	
	5GNR-n12	DFT-S QPSK15M	Bottom Side	10	141500	1	1	Ant 1	24.00	23.62	1.09	0.089	0.874	33.5	33.5	
	5GNR-n12	DFT-S QPSK15M	Front Face	10	141500	36	22	Ant 1	24.00	23.32	1.17	0.727	0.874	24.1	24.1	
	5GNR-n12	DFT-S QPSK15M	Rear Face	10	141500	36	22	Ant 1	24.00	23.32	1.17	0.707	0.874	24.2	24.2	
	5GNR-n12	DFT-S QPSK15M	Left Side	10	141500	36	22	Ant 1	24.00	23.32	1.17	0.356	0.874	27.2	27.2	
	5GNR-n12	DFT-S QPSK15M	Right Side	10	141500	36	22	Ant 1	24.00	23.32	1.17	0.093	0.874	33.1	33.1	
	5GNR-n12	DFT-S QPSK15M	Top Side	10	141500	36	22	Ant 1	24.00	23.32	1.17	0.181	0.874	30.2	30.2	
	5GNR-n12	DFT-S QPSK15M	Bottom Side	10	141500	36	22	Ant 1	24.00	23.32	1.17	0.08	0.874	33.7	33.7	
	5GNR-n12	DFT-S QPSK15M	Front Face	10	141300	1	1	Ant 1	24.00	23.52	1.12	0.783	0.874	24	24	
	5GNR-n12	DFT-S QPSK15M	Front Face	10	141700	1	1	Ant 1	24.00	23.43	1.14	0.769	0.874	24	24	
24	5GNR-n14	DFT-S QPSK10M	Front Face	10	158600	1	1	Ant 1	24.00	23.54	1.11	0.635	0.874	24.9	24.9	24.9
	5GNR-n14	DFT-S QPSK10M	Rear Face	10	158600	1	1	Ant 1	24.00	23.54	1.11	0.617	0.874	25.1	25.1	
	5GNR-n14	DFT-S QPSK10M	Left Side	10	158600	1	1	Ant 1	24.00	23.54	1.11	0.31	0.874	28	28	
	5GNR-n14	DFT-S QPSK10M	Right Side	10	158600	1	1	Ant 1	24.00	23.54	1.11	0.081	0.874	33.9	33.9	
	5GNR-n14	DFT-S QPSK10M	Top Side	10	158600	1	1	Ant 1	24.00	23.54	1.11	0.158	0.874	31	31	
	5GNR-n14	DFT-S QPSK10M	Bottom Side	10	158600	1	1	Ant 1	24.00	23.54	1.11	0.07	0.874	34.5	34.5	
	5GNR-n14	DFT-S QPSK10M	Front Face	10	158600	25	14	Ant 1	24.00	23.32	1.17	0.594	0.874	25	25	
	5GNR-n14	DFT-S QPSK10M	Rear Face	10	158600	25	14	Ant 1	24.00	23.32	1.17	0.587	0.874	25	25	
	5GNR-n14	DFT-S QPSK10M	Left Side	10	158600	25	14	Ant 1	24.00	23.32	1.17	0.296	0.874	28	28	
	5GNR-n14	DFT-S QPSK10M	Right Side	10	158600	25	14	Ant 1	24.00	23.32	1.17	0.078	0.874	33.8	33.8	
	5GNR-n14	DFT-S QPSK10M	Top Side	10	158600	25	14	Ant 1	24.00	23.32	1.17	0.15	0.874	31	31	
	5GNR-n14	DFT-S QPSK10M	Bottom Side	10	158600	25	14	Ant 1	24.00	23.32	1.17	0.067	0.874	34.5	34.5	
26	5GNR-n30	DFT-S QPSK10M	Front Face	10	462000	1	1	Ant 2	24.00	23.44	1.14	1.47	0.874	21.2	21.2	20.3
	5GNR-n30	DFT-S QPSK10M	Rear Face	10	462000	1	1	Ant 2	24.00	23.44	1.14	1.44	0.874	21.3	21.3	
	5GNR-n30	DFT-S QPSK10M	Left Side	10	462000	1	1	Ant 2	24.00	23.44	1.14	<0.001	0.874	52.9	52.9	
	5GNR-n30	DFT-S QPSK10M	Right Side	10	462000	1	1	Ant 2	24.00	23.44	1.14	1.21	0.874	22	22	
	5GNR-n30	DFT-S QPSK10M	Top Side	10	462000	1	1	Ant 2	24.00	23.44	1.14	1.04	0.874	22.7	22.7	
	5GNR-n30	DFT-S QPSK10M	Bottom Side	10	462000	1	1	Ant 2	24.00	23.44	1.14	0.07	0.874	34.4	34.4	
26	5GNR-n30	DFT-S QPSK10M	Front Face	10	462000	25	14	Ant 2	24.00	23.39	1.15	1.78	0.874	20.3	20.3	20.3
	5GNR-n30	DFT-S QPSK10M	Rear Face	10	462000	25	14	Ant 2	24.00	23.39	1.15	1.73	0.874	20.4	20.4	
	5GNR-n30	DFT-S QPSK10M	Left Side	10	462000	25	14	Ant 2	24.00	23.39	1.15	<0.001	0.874	52.8	52.8	
	5GNR-n30	DFT-S QPSK10M	Right Side	10	462000	25	14	Ant 2	24.00	23.39	1.15	1.46	0.874	21.2	21.2	
	5GNR-n30	DFT-S QPSK10M	Top Side	10	462000	25	14	Ant 2	24.00	23.39	1.15	1.23	0.874	21.9	21.9	
	5GNR-n30	DFT-S QPSK10M	Bottom Side	10	462000	25	14	Ant 2	24.00	23.39	1.15	0.084	0.874	33.6	33.6	



Hotspot SAR Test Result

System & Position								DUT Configuration		SAR				Note			
Plot No.	Band	Mode	Test Position	Separation Distance (mm)	Channel	RB#	RB offset	Ant Status	Max. Tune-up Power (dBm)	Measured Conducted Power (dBm)	Scaling Factor	Measured SAR-1g (W/kg)	SAR Design Target	Plimit	Plimit (with Dutycycle)	Minimum	
	5GNR-n48	DFT-S QPSK40M	Front Face	10	638000	1	1	Ant 1	24.00	23.93	1.02	2.04	0.874	20.2	20.2	19.5	
	5GNR-n48	DFT-S QPSK40M	Rear Face	10	638000	1	1	Ant 1	24.00	23.93	1.02	1.64	0.874	21.2	21.2		
27	5GNR-n48	DFT-S QPSK40M	Left Side	10	638000	1	1	Ant 1	24.00	23.93	1.02	2.43	0.874	19.5	19.5		
	5GNR-n48	DFT-S QPSK40M	Right Side	10	638000	1	1	Ant 1	24.00	23.93	1.02	0.124	0.874	32.4	32.4		
	5GNR-n48	DFT-S QPSK40M	Top Side	10	638000	1	1	Ant 1	24.00	23.93	1.02	0.647	0.874	25.2	25.2		
	5GNR-n48	DFT-S QPSK40M	Bottom Side	10	638000	1	1	Ant 1	24.00	23.93	1.02	0.132	0.874	32.1	32.1		
	5GNR-n48	DFT-S QPSK40M	Front Face	10	638000	50	28	Ant 1	24.00	23.56	1.11	1.73	0.874	20.6	20.6		
	5GNR-n48	DFT-S QPSK40M	Rear Face	10	638000	50	28	Ant 1	24.00	23.56	1.11	1.39	0.874	21.5	21.5		
	5GNR-n48	DFT-S QPSK40M	Left Side	10	638000	50	28	Ant 1	24.00	23.56	1.11	2.06	0.874	19.8	19.8		
	5GNR-n48	DFT-S QPSK40M	Right Side	10	638000	50	28	Ant 1	24.00	23.56	1.11	0.105	0.874	32.8	32.8		
	5GNR-n48	DFT-S QPSK40M	Top Side	10	638000	50	28	Ant 1	24.00	23.56	1.11	0.549	0.874	25.6	25.6		
	5GNR-n48	DFT-S QPSK40M	Bottom Side	10	638000	50	28	Ant 1	24.00	23.56	1.11	0.111	0.874	32.5	32.5		
	5GNR-n48	DFT-S QPSK40M	Front Face	10	638000	1	1	Ant 2	24.00	23.91	1.02	1.14	0.874	22.8	22.8		19.2
	5GNR-n48	DFT-S QPSK40M	Rear Face	10	638000	1	1	Ant 2	24.00	23.91	1.02	1.11	0.874	22.9	22.9		
	5GNR-n48	DFT-S QPSK40M	Left Side	10	638000	1	1	Ant 2	24.00	23.91	1.02	0.066	0.874	35.1	35.1		
	5GNR-n48	DFT-S QPSK40M	Right Side	10	638000	1	1	Ant 2	24.00	23.91	1.02	2.49	0.874	19.4	19.4		
	5GNR-n48	DFT-S QPSK40M	Top Side	10	638000	1	1	Ant 2	24.00	23.91	1.02	0.259	0.874	29.2	29.2		
	5GNR-n48	DFT-S QPSK40M	Bottom Side	10	638000	1	1	Ant 2	24.00	23.91	1.02	0.211	0.874	30.1	30.1		
	5GNR-n48	DFT-S QPSK40M	Front Face	10	638000	50	28	Ant 2	24.00	23.81	1.04	1.08	0.874	22.9	22.9		
	5GNR-n48	DFT-S QPSK40M	Rear Face	10	638000	50	28	Ant 2	24.00	23.81	1.04	1.05	0.874	23	23		
	5GNR-n48	DFT-S QPSK40M	Left Side	10	638000	50	28	Ant 2	24.00	23.81	1.04	0.062	0.874	35.3	35.3		
	5GNR-n48	DFT-S QPSK40M	Right Side	10	638000	50	28	Ant 2	24.00	23.81	1.04	2.38	0.874	19.5	19.5		
	5GNR-n48	DFT-S QPSK40M	Top Side	10	638000	50	28	Ant 2	24.00	23.81	1.04	0.244	0.874	29.4	29.4		
	5GNR-n48	DFT-S QPSK40M	Bottom Side	10	638000	50	28	Ant 2	24.00	23.81	1.04	0.199	0.874	30.2	30.2		
28	5GNR-n48	DFT-S QPSK40M	Right Side	10	640444	1	1	Ant 2	24.00	23.81	1.04	2.51	0.874	19.2	19.2		
	5GNR-n48	DFT-S QPSK40M	Right Side	10	642888	1	1	Ant 2	24.00	23.77	1.05	2.23	0.874	19.7	19.7		
	5GNR-n48	DFT-S QPSK40M	Right Side	10	645332	1	1	Ant 2	24.00	23.84	1.04	2.21	0.874	19.8	19.8		



Hotspot SAR Test Result

System & Position								DUT Configuration				SAR				Note	
Plot No.	Band	Mode	Test Position	Separation Distance (mm)	Channel	RB#	RB offset	Ant Status	Max. Tune-up Power (dBm)	Measured Conducted Power (dBm)	Scaling Factor	Measured SAR-1g (W/kg)	SAR Design Target	Plimit	Plimit (with Dutycycle)	Minimum	
29	5GNR-n66	DFT-S QPSK40M	Front Face	10	349000	1	1	Ant 1	24.00	23.84	1.04	1.02	0.874	23.2	23.2	22.9	
	5GNR-n66	DFT-S QPSK40M	Rear Face	10	349000	1	1	Ant 1	24.00	23.84	1.04	1.09	0.874	22.9	22.9		
	5GNR-n66	DFT-S QPSK40M	Left Side	10	349000	1	1	Ant 1	24.00	23.84	1.04	1.01	0.874	23.2	23.2		
	5GNR-n66	DFT-S QPSK40M	Right Side	10	349000	1	1	Ant 1	24.00	23.84	1.04	0.057	0.874	35.7	35.7		
	5GNR-n66	DFT-S QPSK40M	Top Side	10	349000	1	1	Ant 1	24.00	23.84	1.04	0.96	0.874	23.4	23.4		
	5GNR-n66	DFT-S QPSK40M	Bottom Side	10	349000	1	1	Ant 1	24.00	23.84	1.04	0.102	0.874	33.2	33.2		
	5GNR-n66	DFT-S QPSK40M	Front Face	10	349000	108	54	Ant 1	24.00	23.64	1.09	0.942	0.874	23.3	23.3		
	5GNR-n66	DFT-S QPSK40M	Rear Face	10	349000	108	54	Ant 1	24.00	23.64	1.09	1.01	0.874	23	23		
	5GNR-n66	DFT-S QPSK40M	Left Side	10	349000	108	54	Ant 1	24.00	23.64	1.09	0.934	0.874	23.4	23.4		
	5GNR-n66	DFT-S QPSK40M	Right Side	10	349000	108	54	Ant 1	24.00	23.64	1.09	0.052	0.874	35.9	35.9		
	5GNR-n66	DFT-S QPSK40M	Top Side	10	349000	108	54	Ant 1	24.00	23.64	1.09	0.891	0.874	23.6	23.6		
	5GNR-n66	DFT-S QPSK40M	Bottom Side	10	349000	108	54	Ant 1	24.00	23.64	1.09	0.095	0.874	33.3	33.3		
	5GNR-n66	DFT-S QPSK40M	Front Face	10	349000	1	1	Ant 2	24.00	23.82	1.04	0.705	0.874	24.8	24.8		
	30	5GNR-n66	DFT-S QPSK40M	Rear Face	10	349000	1	1	Ant 2	24.00	23.82	1.04	0.837	0.874	24		24
5GNR-n66		DFT-S QPSK40M	Left Side	10	349000	1	1	Ant 2	24.00	23.82	1.04	0.071	0.874	34.7	34.7		
5GNR-n66		DFT-S QPSK40M	Right Side	10	349000	1	1	Ant 2	24.00	23.82	1.04	0.767	0.874	24.4	24.4		
5GNR-n66		DFT-S QPSK40M	Top Side	10	349000	1	1	Ant 2	24.00	23.82	1.04	0.685	0.874	24.9	24.9		
5GNR-n66		DFT-S QPSK40M	Bottom Side	10	349000	1	1	Ant 2	24.00	23.82	1.04	0.089	0.874	33.7	33.7		
5GNR-n66		DFT-S QPSK40M	Front Face	10	349000	108	54	Ant 2	24.00	23.72	1.07	0.6	0.874	25.4	25.4		
5GNR-n66		DFT-S QPSK40M	Rear Face	10	349000	108	54	Ant 2	24.00	23.72	1.07	0.712	0.874	24.6	24.6		
5GNR-n66		DFT-S QPSK40M	Left Side	10	349000	108	54	Ant 2	24.00	23.72	1.07	0.06	0.874	35.4	35.4		
5GNR-n66		DFT-S QPSK40M	Right Side	10	349000	108	54	Ant 2	24.00	23.72	1.07	0.652	0.874	25	25		
5GNR-n66		DFT-S QPSK40M	Top Side	10	349000	108	54	Ant 2	24.00	23.72	1.07	0.583	0.874	25.5	25.5		
5GNR-n66		DFT-S QPSK40M	Bottom Side	10	349000	108	54	Ant 2	24.00	23.72	1.07	0.076	0.874	34.3	34.3		
5GNR-n66		DFT-S QPSK40M	Rear Face	10	346000	1	1	Ant 1	24.00	23.73	1.06	0.985	0.874	23.2	23.2		
5GNR-n66		DFT-S QPSK40M	Rear Face	10	352000	1	1	Ant 1	24.00	23.74	1.06	0.979	0.874	23.2	23.2		



Hotspot SAR Test Result

System & Position								DUT Configuration				SAR			Note		
Plot No.	Band	Mode	Test Position	Separation Distance (mm)	Channel	RB#	RB offset	Ant Status	Max. Tune-up Power (dBm)	Measured Conducted Power (dBm)	Scaling Factor	Measured SAR-1g (W/kg)	SAR Design Target	Plimit	Plimit (with Dutycycle)	Minimum	
	5GNR-n77	DFT-S QPSK100M	Front Face	10	633332	1	1	Ant 1	27.00	25.74	1.34	0.545	0.874	27.8	27.8	22	
	5GNR-n77	DFT-S QPSK100M	Rear Face	10	633332	1	1	Ant 1	27.00	25.74	1.34	0.635	0.874	27.1	27.1		
	5GNR-n77	DFT-S QPSK100M	Left Side	10	633332	1	1	Ant 1	27.00	25.74	1.34	0.752	0.874	26.4	26.4		
	5GNR-n77	DFT-S QPSK100M	Right Side	10	633332	1	1	Ant 1	27.00	25.74	1.34	0.048	0.874	38.3	38.3		
	5GNR-n77	DFT-S QPSK100M	Top Side	10	633332	1	1	Ant 1	27.00	25.74	1.34	0.182	0.874	32.6	32.6		
	5GNR-n77	DFT-S QPSK100M	Bottom Side	10	633332	1	1	Ant 1	27.00	25.74	1.34	0.057	0.874	37.6	37.6		
	5GNR-n77	DFT-S QPSK100M	Front Face	10	633332	135	69	Ant 1	27.00	26.67	1.08	1.86	0.874	23.4	23.4		
	5GNR-n77	DFT-S QPSK100M	Rear Face	10	633332	135	69	Ant 1	27.00	26.67	1.08	2.17	0.874	22.7	22.7		
31	5GNR-n77	DFT-S QPSK100M	Left Side	10	633332	135	69	Ant 1	27.00	26.67	1.08	2.58	0.874	22	22		
	5GNR-n77	DFT-S QPSK100M	Right Side	10	633332	135	69	Ant 1	27.00	26.67	1.08	0.165	0.874	33.9	33.9		
	5GNR-n77	DFT-S QPSK100M	Top Side	10	633332	135	69	Ant 1	27.00	26.67	1.08	0.624	0.874	28.1	28.1		
	5GNR-n77	DFT-S QPSK100M	Bottom Side	10	633332	135	69	Ant 1	27.00	26.67	1.08	0.194	0.874	33.2	33.2		
	5GNR-n77	DFT-S QPSK100M	Front Face	10	650000	1	1	Ant 2	27.00	25.86	1.30	2.15	0.874	22	22	18.7	
	5GNR-n77	DFT-S QPSK100M	Rear Face	10	650000	1	1	Ant 2	27.00	25.86	1.30	2.21	0.874	21.8	21.8		
	5GNR-n77	DFT-S QPSK100M	Left Side	10	650000	1	1	Ant 2	27.00	25.86	1.30	0.131	0.874	34.1	34.1		
	5GNR-n77	DFT-S QPSK100M	Right Side	10	650000	1	1	Ant 2	27.00	25.86	1.30	4.54	0.874	18.7	18.7		
	5GNR-n77	DFT-S QPSK100M	Top Side	10	650000	1	1	Ant 2	27.00	25.86	1.30	0.534	0.874	28	28		
	5GNR-n77	DFT-S QPSK100M	Bottom Side	10	650000	1	1	Ant 2	27.00	25.86	1.30	0.447	0.874	28.8	28.8		
	5GNR-n77	DFT-S QPSK100M	Front Face	10	650000	135	69	Ant 2	27.00	26.68	1.08	2.04	0.874	23	23		
	5GNR-n77	DFT-S QPSK100M	Rear Face	10	650000	135	69	Ant 2	27.00	26.68	1.08	2.11	0.874	22.9	22.9		
	5GNR-n77	DFT-S QPSK100M	Left Side	10	650000	135	69	Ant 2	27.00	26.68	1.08	0.124	0.874	35.2	35.2		
	5GNR-n77	DFT-S QPSK100M	Right Side	10	650000	135	69	Ant 2	27.00	26.68	1.08	4.21	0.874	19.9	19.9		
	5GNR-n77	DFT-S QPSK100M	Top Side	10	650000	135	69	Ant 2	27.00	26.68	1.08	0.512	0.874	29	29		
	5GNR-n77	DFT-S QPSK100M	Bottom Side	10	650000	135	69	Ant 2	27.00	26.68	1.08	0.428	0.874	29.8	29.8		
	5GNR-n77	DFT-S QPSK100M	Front Face	10	662000	1	1	Ant 3	27.00	25.64	1.37	0.775	0.874	26.2	26.2	22	
	5GNR-n77	DFT-S QPSK100M	Rear Face	10	662000	1	1	Ant 3	27.00	25.64	1.37	0.978	0.874	25.2	25.2		
	5GNR-n77	DFT-S QPSK100M	Left Side	10	662000	1	1	Ant 3	27.00	25.64	1.37	2.01	0.874	22	22		
	5GNR-n77	DFT-S QPSK100M	Right Side	10	662000	1	1	Ant 3	27.00	25.64	1.37	0.188	0.874	32.3	32.3		
	5GNR-n77	DFT-S QPSK100M	Top Side	10	662000	1	1	Ant 3	27.00	25.64	1.37	0.104	0.874	34.9	34.9		
	5GNR-n77	DFT-S QPSK100M	Bottom Side	10	662000	1	1	Ant 3	27.00	25.64	1.37	0.971	0.874	25.2	25.2		
	5GNR-n77	DFT-S QPSK100M	Front Face	10	662000	135	69	Ant 3	27.00	26.62	1.09	0.847	0.874	26.8	26.8		
	5GNR-n77	DFT-S QPSK100M	Rear Face	10	662000	135	69	Ant 3	27.00	26.62	1.09	1.16	0.874	25.4	25.4		
33	5GNR-n77	DFT-S QPSK100M	Left Side	10	662000	135	69	Ant 3	27.00	26.62	1.09	2.53	0.874	22	22		
	5GNR-n77	DFT-S QPSK100M	Right Side	10	662000	135	69	Ant 3	27.00	26.62	1.09	0.216	0.874	32.7	32.7		
	5GNR-n77	DFT-S QPSK100M	Top Side	10	662000	135	69	Ant 3	27.00	26.62	1.09	0.136	0.874	34.7	34.7		
	5GNR-n77	DFT-S QPSK100M	Bottom Side	10	662000	135	69	Ant 3	27.00	26.62	1.09	1.19	0.874	25.3	25.3		



Hotspot SAR Test Result

System & Position								DUT Configuration		SAR				Note		
Plot No.	Band	Mode	Test Position	Separation Distance (mm)	Channel	RB#	RB offset	Ant Status	Max. Tune-up Power (dBm)	Measured Conducted Power (dBm)	Scaling Factor	Measured SAR-1g (W/kg)	SAR Design Target	Plimit	Plimit (with Dutycycle)	Minimum
	5GNR-n77	DFT-S QPSK100M	Front Face	10	650000	1	1	Ant 4	27.00	25.92	1.28	0.842	0.874	26.1	26.1	20.3
	5GNR-n77	DFT-S QPSK100M	Rear Face	10	650000	1	1	Ant 4	27.00	25.92	1.28	1.85	0.874	22.7	22.7	
	5GNR-n77	DFT-S QPSK100M	Left Side	10	650000	1	1	Ant 4	27.00	25.92	1.28	0.156	0.874	33.4	33.4	
	5GNR-n77	DFT-S QPSK100M	Right Side	10	650000	1	1	Ant 4	27.00	25.92	1.28	3.13	0.874	20.4	20.4	
	5GNR-n77	DFT-S QPSK100M	Top Side	10	650000	1	1	Ant 4	27.00	25.92	1.28	0.098	0.874	35.4	35.4	
	5GNR-n77	DFT-S QPSK100M	Bottom Side	10	650000	1	1	Ant 4	27.00	25.92	1.28	1.27	0.874	24.3	24.3	
	5GNR-n77	DFT-S QPSK100M	Front Face	10	650000	135	69	Ant 4	27.00	26.66	1.08	0.948	0.874	26.3	26.3	
	5GNR-n77	DFT-S QPSK100M	Rear Face	10	650000	135	69	Ant 4	27.00	26.66	1.08	2.11	0.874	22.8	22.8	
	5GNR-n77	DFT-S QPSK100M	Left Side	10	650000	135	69	Ant 4	27.00	26.66	1.08	0.159	0.874	34.1	34.1	
	5GNR-n77	DFT-S QPSK100M	Right Side	10	650000	135	69	Ant 4	27.00	26.66	1.08	3.28	0.874	20.9	20.9	
	5GNR-n77	DFT-S QPSK100M	Top Side	10	650000	135	69	Ant 4	27.00	26.66	1.08	0.107	0.874	35.8	35.8	
	5GNR-n77	DFT-S QPSK100M	Bottom Side	10	650000	135	69	Ant 4	27.00	26.66	1.08	1.51	0.874	24.3	24.3	
	5GNR-n77	DFT-S QPSK100M	Right Side	10	633332	1	1	Ant 2	27.00	25.62	1.37	4.02	0.874	19	19	18.7
	5GNR-n77	DFT-S QPSK100M	Right Side	10	653000	1	1	Ant 2	27.00	25.70	1.35	4.14	0.874	18.9	18.9	
	5GNR-n77	DFT-S QPSK100M	Right Side	10	656000	1	1	Ant 2	27.00	25.53	1.40	4.04	0.874	18.9	18.9	
	5GNR-n77	DFT-S QPSK100M	Right Side	10	659000	1	1	Ant 2	27.00	25.47	1.42	4.1	0.874	18.8	18.8	
	5GNR-n77	DFT-S QPSK100M	Right Side	10	662000	1	1	Ant 2	27.00	25.38	1.45	4	0.874	18.8	18.8	
	5GNR-n77	DFT-S QPSK100M	Right Side	10	633332	1	1	Ant 4	27.00	26.61	1.09	1.83	0.874	23.4	23.4	20.3
	5GNR-n77	DFT-S QPSK100M	Right Side	10	653000	1	1	Ant 4	27.00	26.50	1.12	3.38	0.874	20.6	20.6	
34	5GNR-n77	DFT-S QPSK100M	Right Side	10	656000	1	1	Ant 4	27.00	26.23	1.19	3.42	0.874	20.3	20.3	
	5GNR-n77	DFT-S QPSK100M	Right Side	10	659000	1	1	Ant 4	27.00	26.41	1.15	3.13	0.874	20.9	20.9	
	5GNR-n77	DFT-S QPSK100M	Right Side	10	662000	1	1	Ant 4	27.00	26.48	1.13	2.8	0.874	21.4	21.4	

Exposure Scenario		Body	Pmax (dBm)
Averaging Volume		1g	
Test Distance (mm)		10	
WWAN Bands	Antenna	Plimit corresponding to 0.874 mW/Kg (SAR_design_target)	
LTE B2	1	23.30	23.00
LTE B2	2	21.90	23.00
LTE B4	1	22.40	23.00
LTE B4	2	22.40	23.00
LTE B5	1	25.20	23.00
LTE B5	2	26.50	23.00
LTE B7	2	21.40	23.00
LTE B12	1	23.80	23.00
LTE B14	1	24.70	23.00
LTE B30	1	21.30	23.00
LTE B30	2	21.00	19.50
LTE B40	2	23.00	19.50
LTE B48	1	21.40	23.00
LTE B66	1	22.60	23.00
LTE B66	2	23.90	23.00
5G NR-n2	1	23.00	23.00
5G NR-n2	2	21.60	23.00
5G NR-n5	1	25.50	23.00
5G NR-n12	1	24.00	23.00
5G NR-n14	1	24.90	23.00
5G NR-n30	2	20.30	23.00
5G NR-n48	1	19.50	23.00
5G NR-n48	2	19.20	23.00
5G NR-n66	1	22.90	23.00
5G NR-n66	2	24.00	23.00
5G NR-n77/78 for FCC PC2/PC3	1	22.00	26.00/23.00
5G NR-n77/78 for FCC PC2/PC3	2	18.70	26.00/23.00
5G NR-n77/78 for FCC PC2	3	22.00	26.00
5G NR-n77/78 for FCC PC2	4	20.30	26.00

Note:

1. Pmax is used for RF tune up procedure. The maximum allowed output power is equal to Pmax + 1dB uncertainty.
2. SAR_design_target = 0.874 W/kg for 1g
3. When Pmax < Plimit, the DUT will operate at a power level up to Pmax.

Appendix B. Calibration of Test Equipment List

Calibration of Test Equipment List are shown as below.



Equipment for SAR Test

Equipment	Manufacturer	Model	SN	Cal. Date	Cal. Interval
System Validation Dipole	SPEAG	D750V3	1013	Aug. 21, 2023	1 Year
System Validation Dipole	SPEAG	D835V2	4d121	Aug. 21, 2023	1 Year
System Validation Dipole	SPEAG	D1750V2	1055	Sep. 21, 2023	1 Year
System Validation Dipole	SPEAG	D1900V2	5d036	Feb. 19, 2024	1 Year
System Validation Dipole	SPEAG	D2300V2	1004	Feb. 19, 2024	1 Year
System Validation Dipole	SPEAG	D2450V2	737	Feb. 19, 2024	1 Year
System Validation Dipole	SPEAG	D2600V2	1020	Aug. 18, 2023	1 Year
System Validation Dipole	SPEAG	D3500V2	1007	Jan. 23, 2024	1 Year
System Validation Dipole	SPEAG	D3700V2	1017	Feb. 15, 2024	1 Year
System Validation Dipole	SPEAG	D3900V2	1020	Feb. 15, 2024	1 Year
System Validation Dipole	SPEAG	D5GHzV2	1019	Feb. 13, 2024	1 Year
System Validation Dipole	SPEAG	D5GHzV2	1203	Dec. 14, 2023	1 Year
System Validation Dipole	SPEAG	D6.5GHzV2	1008	Sep. 21, 2023	1 Year
System Verification Source	SPEAG	5G Verification Source 10 GHz	1025	Jan. 18, 2024	1 Year
Dosimetric E-Field Probe	SPEAG	EX3DV4	7472	Oct. 23, 2023	1 Year
Dosimetric E-Field Probe	SPEAG	EX3DV4	7554	Sep. 19, 2023	1 Year
Dosimetric E-Field Probe	SPEAG	EX3DV4	7797	Jan. 08, 2024	1 Year
E-Field Probe	SPEAG	EUmmWV4	9615	Jul. 10, 2023	1 Year
Data Acquisition Electronics	SPEAG	DAE4	1590	Sep. 14, 2023	1 Year
Data Acquisition Electronics	SPEAG	DAE4	1431	Aug. 24, 2023	1 Year
Data Acquisition Electronics	SPEAG	DAE4	1757	Oct. 23, 2023	1 Year
Universal Radio Communication Tester	Anritsu	MT8821C	6201381727	Aug. 09, 2023	1 Year
Universal Radio Communication Tester	Anritsu	MT8000A	6262012865	Dec. 01, 2023	1 Year
Analong Signal Generator	R&S	SMA100B	104417	Oct. 23, 2023	1 Year
Mini-Circuits Wideband Amplifier	Mini-Circuits	ZVA-183-S+	434502031A	Jul. 07, 2023	1 Year
Universal Wireless Test Set	Anritsu	MT8870A	6262296569	Aug. 16, 2023	1 Year
Thermometer	YFE	YF-160A	120702365	Sep. 11, 2023	1 Year
Dielectric Assessment Kit	SPEAG	DAKS-3.5	1151	Jul. 17, 2023	1 Year
Powersource1	SPEAG	SE_UMS_160 BA	1052	Jul. 13, 2023	1 Year