



APPENDIX F: SAR SYSTEM VALIDATION

Per FCC KDB Publication 865664 D02v01r02, SAR system validation status should be documented to confirm measurement accuracy. The SAR systems (including SAR probes, system components and software versions) used for this device were validated against its performance specifications prior to the SAR measurements. Reference dipoles were used with the required tissue- equivalent media for system validation, according to the procedures outlined in FCC KDB Publication 865664 D01v01r04 and IEEE 1528-2013. Since SAR probe calibrations are frequency dependent, each probe calibration point was validated at a frequency within the valid frequency range of the probe calibration point, using the system that normally operates with the probe for routine SAR measurements and according to the required tissue-equivalent media.

A tabulated summary of the system validation status including the validation date(s), measurement frequencies, SAR probes and tissue dielectric parameters has been included.

Table F-1
SAR System Validation Summary – 1g



SAR System	Freq. (MHz)	Date	Probe SN	Probe Cal Point		Cond. (σ)	Perm. (ϵ_r)	CW VALIDATION			MOD. VALIDATION		
								SENSITIVITY	PROBE LINEARITY	PROBE ISOTROPY	MOD. TYPE	DUTY FACTOR	PAR
K4	750	10/20/2021	7640	750	Head	0.904	42.653	PASS	PASS	PASS	N/A	N/A	N/A
AM4	835	10/07/2021	7427	835	Head	0.939	40.800	PASS	PASS	PASS	GMSK	PASS	N/A
K4	835	10/20/2021	7640	835	Head	0.935	42.411	PASS	PASS	PASS	GMSK	PASS	N/A
A	1750	08/13/2021	7406	1750	Head	1.373	38.653	PASS	PASS	PASS	N/A	N/A	N/A
AM5	1750	08/25/2021	7546	1750	Head	1.340	38.600	PASS	PASS	PASS	N/A	N/A	N/A
AM2	1750	09/20/2021	7532	1750	Head	1.350	40.600	PASS	PASS	PASS	N/A	N/A	N/A
AM4	1750	10/05/2021	7427	1750	Head	1.350	40.400	PASS	PASS	PASS	N/A	N/A	N/A
A	1900	08/31/2021	7406	1900	Head	1.459	38.754	PASS	PASS	PASS	GMSK	PASS	N/A
AM2	1900	09/20/2021	7532	1900	Head	1.440	40.400	PASS	PASS	PASS	GMSK	PASS	N/A
AM9	2450	10/04/2021	3949	2450	Head	1.800	40.000	PASS	PASS	PASS	OFDM/TDD	PASS	PASS
AM9	2600	10/06/2021	3949	2600	Head	1.910	39.450	PASS	PASS	PASS	TDD	PASS	N/A
AM2	5250	09/20/2021	7532	5250	Head	4.620	35.200	PASS	PASS	PASS	OFDM	N/A	PASS
AM2	5600	09/20/2021	7532	5600	Head	5.010	34.600	PASS	PASS	PASS	OFDM	N/A	PASS
AM2	5750	09/20/2021	7532	5750	Head	5.180	34.300	PASS	PASS	PASS	OFDM	N/A	PASS
B	5800	10/08/2021	7552	5800	Head	5.492	35.325	PASS	PASS	PASS	OFDM	N/A	PASS
K4	750	09/16/2021	7640	750	Body	0.975	55.472	PASS	PASS	PASS	N/A	N/A	N/A
K1	750	10/21/2021	7558	750	Body	0.968	54.027	PASS	PASS	PASS	N/A	N/A	N/A
AM9	835	09/23/2021	3949	835	Body	0.998	54.634	PASS	PASS	PASS	GMSK	PASS	N/A
K4	835	10/20/2021	7640	835	Body	1.008	55.267	PASS	PASS	PASS	GMSK	PASS	N/A
K1	835	10/21/2021	7558	835	Body	1.002	53.813	PASS	PASS	PASS	GMSK	PASS	N/A
AM6	1750	08/23/2021	7416	1750	Body	1.530	51.700	PASS	PASS	PASS	N/A	N/A	N/A
G	1750	08/27/2021	7357	1750	Body	1.488	51.324	PASS	PASS	PASS	N/A	N/A	N/A
D	1750	12/07/2021	3589	1750	Body	1.492	53.904	PASS	PASS	PASS	N/A	N/A	N/A
P	1900	08/23/2021	7410	1900	Body	1.582	52.055	PASS	PASS	PASS	GMSK	PASS	N/A
AM6	1900	08/31/2021	7416	1900	Body	1.580	53.000	PASS	PASS	PASS	GMSK	PASS	N/A
AM3	1900	09/10/2021	7421	1900	Body	1.590	50.700	PASS	PASS	PASS	GMSK	PASS	N/A
AM6	2450	08/30/2021	7416	2450	Body	2.030	52.300	PASS	PASS	PASS	OFDM/TDD	PASS	PASS
AM6	2600	08/27/2021	7416	2600	Body	2.187	50.945	PASS	PASS	PASS	TDD	PASS	N/A
AM2	5250	09/16/2021	7532	5250	Body	5.420	47.900	PASS	PASS	PASS	OFDM	N/A	PASS
AM2	5600	09/16/2021	7532	5600	Body	5.920	47.300	PASS	PASS	PASS	OFDM	N/A	PASS
AM2	5750	09/16/2021	7532	5750	Body	6.140	47.000	PASS	PASS	PASS	OFDM	N/A	PASS
B	5800	10/08/2021	7552	5800	Body	6.239	47.912	PASS	PASS	PASS	OFDM	N/A	PASS

FCC ID A3LSMS906E		SAR EVALUATION REPORT		Approved by: Quality Manager
Test Dates: 11/01/21 - 12/13/21	DUT Type: Portable Handset	APPENDIX F: Page 1 of 2		

**Table F-2
SAR System Validation Summary – 10g**

SAR System	Freq. (MHz)	Date	Probe SN	Probe Cal Point		Cond. (σ)	Perm. (ϵ_r)	CW VALIDATION			MOD. VALIDATION		
								SENSITIVITY	PROBE LINEARITY	PROBE ISOTROPY	MOD. TYPE	DUTY FACTOR	PAR
G	1750	08/27/2021	7357	1750	Body	1.488	51.324	PASS	PASS	PASS	N/A	N/A	N/A
D	1750	12/07/2021	3589	1750	Body	1.492	53.904	PASS	PASS	PASS	N/A	N/A	N/A
P	1900	08/23/2021	7410	1900	Body	1.582	52.055	PASS	PASS	PASS	GMSK	PASS	N/A
AM6	1900	08/31/2021	7416	1900	Body	1.580	53.000	PASS	PASS	PASS	GMSK	PASS	N/A
AM6	2450	08/30/2021	7416	2450	Body	2.030	52.300	PASS	PASS	PASS	OFDM/TDD	PASS	PASS
AM6	2600	08/27/2021	7416	2600	Body	2.187	50.945	PASS	PASS	PASS	TDD	PASS	N/A
AM2	5250	09/16/2021	7532	5250	Body	5.420	47.900	PASS	PASS	PASS	OFDM	N/A	PASS
AM2	5600	09/16/2021	7532	5600	Body	5.920	47.300	PASS	PASS	PASS	OFDM	N/A	PASS
AM2	5750	09/16/2021	7532	5750	Body	6.140	47.000	PASS	PASS	PASS	OFDM	N/A	PASS
B	5800	10/08/2021	7552	5800	Body	6.239	47.912	PASS	PASS	PASS	OFDM	N/A	PASS

NOTE: The probes have been calibrated for both CW and modulated signals. Modulations in the table above represent test configurations for which the measurement system has been validated per FCC KDB Publication 865664 D01v01r04 for scenarios when CW probe calibrations are used with other signal types. SAR systems were validated for modulated signals with a periodic duty cycle, such as GMSK, or with a high peak to average ratio (>5 dB), such as OFDM according to FCC KDB Publication 865664 D01v01r04.

FCC ID A3LSMS906E	 PCTEST <small>Proud to be part of element</small>	SAR EVALUATION REPORT		Approved by: Quality Manager
Test Dates: 11/01/21 - 12/13/21	DUT Type: Portable Handset	APPENDIX F: Page 2 of 2		