APPENDIX H: 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 H-1
SAR System Validation Summary – 1g

SAR System	Freq. (MHz)	Date	Probe SN	Probe Cal Point		Cond. (σ)	Perm. (εr)	CW VALIDATION			MOD. VALIDATION		
								SENSITIVITY	PROBE LINEARITY	PROBE ISOTROPY	MOD. TYPE	DUTY FACTOR	PAR
L	750	01/10/2022	7670	750	Head	0.904	43.321	PASS	PASS	PASS	N/A	N/A	N/A
H	750	01/16/2022	7409	750	Head	0.898	41.844	PASS	PASS	PASS	N/A	N/A	N/A
S	750	01/20/2022	7552	750	Head	0.866	42.809	PASS	PASS	PASS	N/A	N/A	N/A
H	835	01/16/2022	7409	835	Head	0.929	41.615	PASS	PASS	PASS	GMSK	PASS	N/A
S	835	01/20/2022	7552	835	Head	0.897	42.532	PASS	PASS	PASS	GMSK	PASS	N/A
E	835	03/17/2022	7538	835	Head	0.942	42.991	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
S	1750	01/20/2022	7552	1750	Head	1.363	40.760	PASS	PASS	PASS	N/A	N/A	N/A
N	1750	04/06/2022	7713	1750	Head	1.379	39.434	PASS	PASS	PASS	N/A	N/A	N/A
K	1900	02/09/2022	3914	1900	Head	1.447	39.519	PASS	PASS	PASS	GMSK	PASS	N/A
E	1900	03/21/2022	7538	1900	Head	1.456	39.181	PASS	PASS	PASS	GMSK	PASS	N/A
N	1900	04/06/2022	7713	1900	Head	1.466	39.162	PASS	PASS	PASS	GMSK	PASS	N/A
P	2450	01/18/2022	7410	2450	Head	1.872	38.651	PASS	PASS	PASS	OFDM/TDD	PASS	PASS
P	2600	01/19/2022	7410	2600	Head	1.990	38.359	PASS	PASS	PASS	TDD	PASS	N/A
L	3500	10/13/2021	7670	3500	Head	2.786	38.172	PASS	PASS	PASS	TDD	PASS	N/A
L	3700	10/13/2021	7670	3700	Head	2.881	38.022	PASS	PASS	PASS	TDD	PASS	N/A
L	3900	10/13/2021	7670	3900	Head	2.975	37.851	PASS	PASS	PASS	TDD	PASS	N/A
I	750	01/10/2022	7661	750	Body	0.943	54.941	PASS	PASS	PASS	N/A	N/A	N/A
H	750	01/12/2022	7409	750	Body	0.949	54.797	PASS	PASS	PASS	N/A	N/A	N/A
P	750	01/25/2022	7410	750	Body	0.949	55.454	PASS	PASS	PASS	N/A	N/A	N/A
H	835	01/11/2022	7409	835	Body	0.948	53.388	PASS	PASS	PASS	GMSK	PASS	N/A
L	1750	01/05/2022	7670	1750	Body	1.477	53.736	PASS	PASS	PASS	N/A	N/A	N/A
H	1750	01/12/2022	7409	1750	Body	1.489	53.027	PASS	PASS	PASS	N/A	N/A	N/A
K	1750	02/04/2022	3914	1750	Body	1.489	54.035	PASS	PASS	PASS	N/A	N/A	N/A
P	1900	12/21/2021	7410	1900	Body	1.568	52.329	PASS	PASS	PASS	GMSK	PASS	N/A
K	1900	02/07/2022	3914	1900	Body	1.563	52.842	PASS	PASS	PASS	GMSK	PASS	N/A
N	1900	03/29/2022	7713	1900	Body	1.479	51.092	PASS	PASS	PASS	GMSK	PASS	N/A
S	2450	01/25/2022	7552	2450	Body	2.016	52.250	PASS	PASS	PASS	OFDM/TDD	PASS	PASS
H	2600	01/13/2022	7409	2600	Body	2.168	50.881	PASS	PASS	PASS	TDD	PASS	N/A
S	2600	01/25/2022	7552	2600	Body	2.147	51.997	PASS	PASS	PASS	TDD	PASS	N/A
I	3500	10/13/2021	7661	3500	Body	3.198	49.804	PASS	PASS	PASS	TDD	PASS	N/A
I	3700	10/13/2021	7661	3700	Body	3.429	49.469	PASS	PASS	PASS	TDD	PASS	N/A
I	3900	10/13/2021	7661	3900	Body	3.675	49.133	PASS	PASS	PASS	TDD	PASS	N/A

Table H-2
SAR System Validation Summary – 10g

SAR System	Freq. (MHz)	Date	Probe SN	Probe Cal Point		Cond. (σ)	Perm. (εr)	CW VALIDATION			MOD. VALIDATION		
								SENSITIVITY	PROBE LINEARITY	PROBE ISOTROPY	MOD. TYPE	DUTY FACTOR	PAR
K	13	09/08/2021	3914	13	Head	0.744	53.216	PASS	PASS	PASS	N/A	N/A	N/A
H	2600	01/13/2022	7409	2600	Body	2.168	50.881	PASS	PASS	PASS	TDD	PASS	N/A
I	3700	10/13/2021	7661	3700	Body	3.429	49.469	PASS	PASS	PASS	TDD	PASS	N/A
I	3900	10/13/2021	7661	3900	Body	3.675	49.133	PASS	PASS	PASS	TDD	PASS	N/A
O	5250	03/10/2022	7417	5250	Body	5.470	48.210	PASS	PASS	PASS	OFDM	N/A	PASS
O	5600	03/10/2022	7417	5600	Body	5.973	47.490	PASS	PASS	PASS	OFDM	N/A	PASS
O	5750	03/11/2022	7417	5750	Body	6.190	47.228	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