APPENDIX D: 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. 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 D-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
AM12	750	06/08/2022	7499	750	Head	0.874	43.491	PASS	PASS	PASS	N/A	N/A	N/A
AM13	750	06/13/2022	7360	750	Head	0.896	43.063	PASS	PASS	PASS	N/A	N/A	N/A
AM12	835	06/08/2022	7499	835	Head	0.914	42.882	PASS	PASS	PASS	GMSK	PASS	N/A
AM5	850	07/22/2022	7490	850	Head	0.942	40.191	PASS	PASS	PASS	GMSK	PASS	N/A
AM1	1750	02/24/2022	7639	1750	Head	1.305	41.106	PASS	PASS	PASS	N/A	N/A	N/A
AM6	1900	06/08/2022	7532	1900	Head	1.451	40.772	PASS	PASS	PASS	GMSK	PASS	N/A
AM10	1900	06/08/2022	7308	1900	Head	1.305	41.750	PASS	PASS	PASS	GMSK	PASS	N/A
AM3	2450	04/04/2022	7427	2450	Head	1.807	39.520	PASS	PASS	PASS	OFDM/TDD	PASS	PASS
AM10	2600	06/02/2022	7308	2600	Head	2.058	38.219	PASS	PASS	PASS	TDD	PASS	N/A

Table D-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
AM8	750	06/01/2022	7546	750	Head	0.886	43.359	PASS	PASS	PASS	N/A	N/A	N/A
AM6	750	07/28/2022	7532	750	Head	0.868	41.699	PASS	PASS	PASS	N/A	N/A	N/A
AM12	835	06/08/2022	7499	835	Head	0.914	42.882	PASS	PASS	PASS	GMSK	PASS	N/A
AM7	835	06/10/2022	7416	835	Head	0.877	41.594	PASS	PASS	PASS	GMSK	PASS	N/A
AM1	1750	02/24/2022	7639	1750	Head	1.305	41.106	PASS	PASS	PASS	N/A	N/A	N/A
AM6	1900	06/08/2022	7532	1900	Head	1.451	40.772	PASS	PASS	PASS	GMSK	PASS	N/A
AM10	1900	06/08/2022	7308	1900	Head	1.305	41.750	PASS	PASS	PASS	GMSK	PASS	N/A
AM3	2450	04/04/2022	7427	2450	Head	1.807	39.520	PASS	PASS	PASS	OFDM/TDD	PASS	PASS
AM7	2450	06/08/2022	7416	2450	Head	1.815	38.495	PASS	PASS	PASS	OFDM/TDD	PASS	PASS
AM10	2600	06/02/2022	7308	2600	Head	2.058	38.219	PASS	PASS	PASS	TDD	PASS	N/A

NOTE: While 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.