

APPENDIX D: SAR SYSTEM VALIDATION

FCC ID: BCG-A2771	SAR EVALUATION REPORT	Approved by: Technical Manager
DUT Type: Watch		APPENDIX D: Page 1 of 2

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. (ϵ_r)	CW VALIDATION			MOD. VALIDATION		
								SENSITIVITY	PROBE LINEARITY	PROBE ISOTROPY	MOD. TYPE	DUTY FACTOR	PAR
AM7	2450	2/15/2022	7674	2450	Head	1.768	39.138	PASS	PASS	PASS	OFDM/TDD	PASS	PASS
AM9	5250	4/12/2022	7638	5250	Head	4.721	36.069	PASS	PASS	PASS	OFDM	N/A	PASS
AM9	5600	4/12/2022	7638	5600	Head	5.127	35.407	PASS	PASS	PASS	OFDM	N/A	PASS
AM9	5750	4/12/2022	7638	5750	Head	5.19	34.6	PASS	PASS	PASS	OFDM	N/A	PASS

Table D-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
AM3	2450	4/4/2022	7427	2450	Head	1.807	39.520	PASS	PASS	PASS	OFDM/TDD	PASS	PASS
AM7	2450	2/15/2022	7674	2450	Head	1.768	39.138	PASS	PASS	PASS	OFDM/TDD	PASS	PASS
AM9	5250	4/12/2022	7638	5250	Head	4.721	36.069	PASS	PASS	PASS	OFDM	N/A	PASS
AM9	5600	4/12/2022	7638	5600	Head	5.127	35.407	PASS	PASS	PASS	OFDM	N/A	PASS
AM9	5750	4/12/2022	7638	5750	Head	5.190	34.60	PASS	PASS	PASS	OFDM	N/A	PASS

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.

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