

APPENDIX D: SAR SYSTEM VALIDATION

FCC ID: BCG-A2698	SAR EVALUATION REPORT	Approved by: Technical Manager
DUT Type: Wireless Earbud		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 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 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	
AM4	2450	03/11/2022	3837	2450	Head	1.800	39.784	PASS	PASS	PASS	OFDM/TDD	PASS	PASS
AM9	5250	04/12/2022	7638	5250	Head	4.606	35.527	PASS	PASS	PASS	OFDM	N/A	PASS
AM9	5600	04/12/2022	7638	5600	Head	5.018	34.950	PASS	PASS	PASS	OFDM	N/A	PASS
AM9	5750	04/12/2022	7638	5750	Head	5.190	34.628	PASS	PASS	PASS	OFDM	N/A	PASS

NOTE: While the probes have been calibrated for both CW and modulated signals, all measurements were performed using communication systems calibrated for CW signals only. 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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