

APPENDIX D: SAR SYSTEM VALIDATION

FCC ID: BCG-A2772

SAR EVALUATION REPORT

Approved by:
Technical Manager

DUT Type:
Watch

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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
AM6	750	8/3/2022	7532	750	Head	0.874	40.372	PASS	PASS	PASS	N/A	N/A	N/A
AM5	835	7/22/2022	7490	835	Head	0.942	40.191	PASS	PASS	PASS	GMSK	PASS	N/A
AM1	1750	2/24/2022	7639	1750	Head	1.305	41.106	PASS	PASS	PASS	N/A	N/A	N/A
AM6	1750	6/8/2022	7532	1750	Head	1.356	40.955	PASS	PASS	PASS	N/A	N/A	N/A
AM6	1900	6/8/2022	7532	1900	Head	1.451	40.772	PASS	PASS	PASS	GMSK	PASS	N/A
AM10	1900	6/8/2022	7308	1900	Head	1.397	41.75	PASS	PASS	PASS	GMSK	PASS	N/A
AM10	2450	6/2/2022	7308	2450	Head	1.882	38.829	PASS	PASS	PASS	OFDM/TDD	PASS	PASS
AM11	2450	7/26/2022	7420	2450	Head	1.855	39.794	PASS	PASS	PASS	OFDM/TDD	PASS	PASS
AM10	2600	6/2/2022	7308	2600	Head	2.058	38.219	PASS	PASS	PASS	TDD	PASS	N/A
AM8	5250	6/1/2022	7546	5250	Head	4.721	36.069	PASS	PASS	PASS	OFDM	N/A	PASS
AM8	5600	6/1/2022	7546	5600	Head	5.127	35.407	PASS	PASS	PASS	OFDM	N/A	PASS
AM8	5750	6/1/2022	7546	5750	Head	5.307	35.13	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
AM12	750	6/8/2022	7499	750	Head	0.874	43.491	PASS	PASS	PASS	N/A	N/A	N/A
AM6	750	8/3/2022	7532	750	Head	0.874	40.372	PASS	PASS	PASS	N/A	N/A	N/A
AM12	835	6/8/2022	7499	835	Head	0.914	42.882	PASS	PASS	PASS	GMSK	PASS	N/A
AM5	835	7/22/2022	7490	835	Head	0.942	40.191	PASS	PASS	PASS	GMSK	PASS	N/A
AM1	1750	2/24/2022	7639	1750	Head	1.305	41.75	PASS	PASS	PASS	N/A	N/A	N/A
AM6	1750	6/8/2022	7532	1750	Head	1.356	40.955	PASS	PASS	PASS	N/A	N/A	N/A
AM6	1900	6/8/2022	7532	1900	Head	1.451	40.772	PASS	PASS	PASS	GMSK	PASS	N/A
AM10	2450	6/2/2022	7308	2450	Head	1.882	38.829	PASS	PASS	PASS	D	PASS	PASS
AM11	2450	7/26/2022	7420	2450	Head	1.855	39.794	PASS	PASS	PASS	D	PASS	PASS
AM10	2600	6/2/2022	7308	2600	Head	2.058	38.219	PASS	PASS	PASS	TDD	PASS	N/A
AM8	5250	6/1/2022	7546	5250	Head	4.721	36.069	PASS	PASS	PASS	OFDM	N/A	PASS
AM8	5600	6/1/2022	7546	5600	Head	5.127	35.407	PASS	PASS	PASS	OFDM	N/A	PASS
AM8	5750	6/1/2022	7546	5750	Head	5.307	35.13	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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