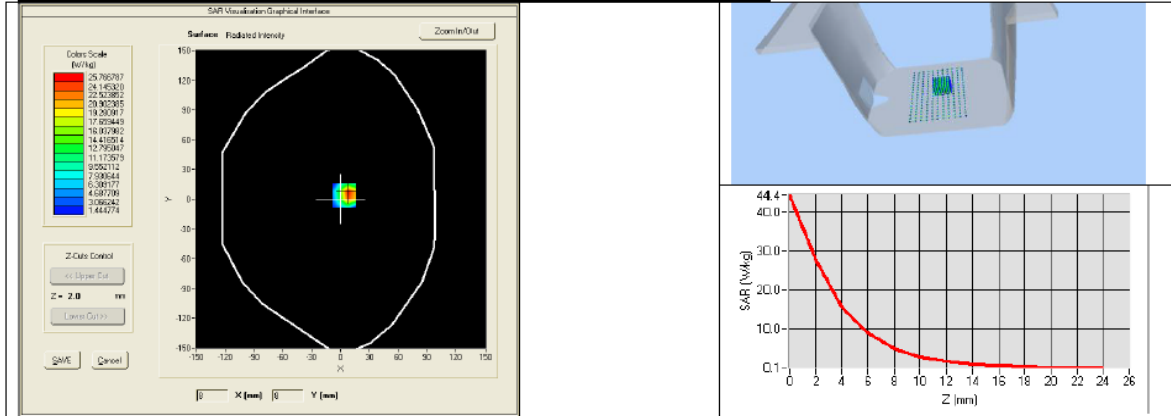




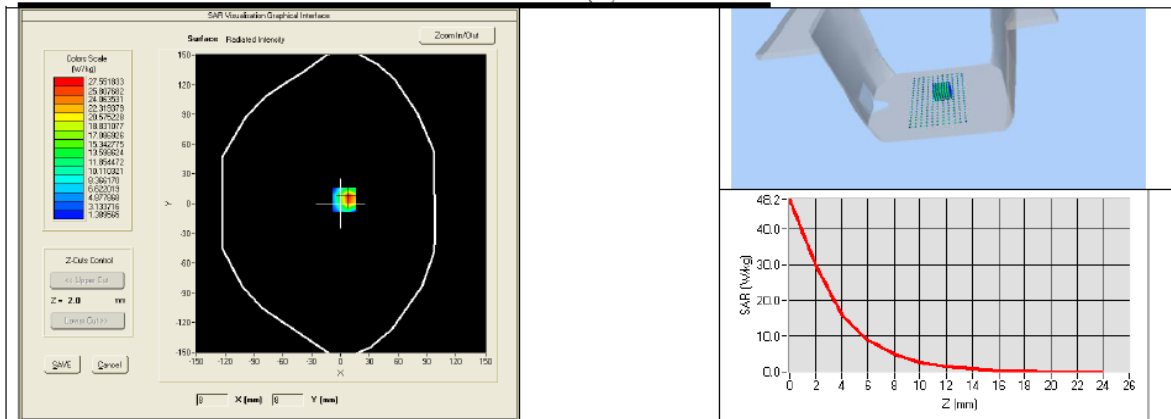
SAR REFERENCE WAVEGUIDE CALIBRATION REPORT

Ref: ACR.256.12.15.SATU.A

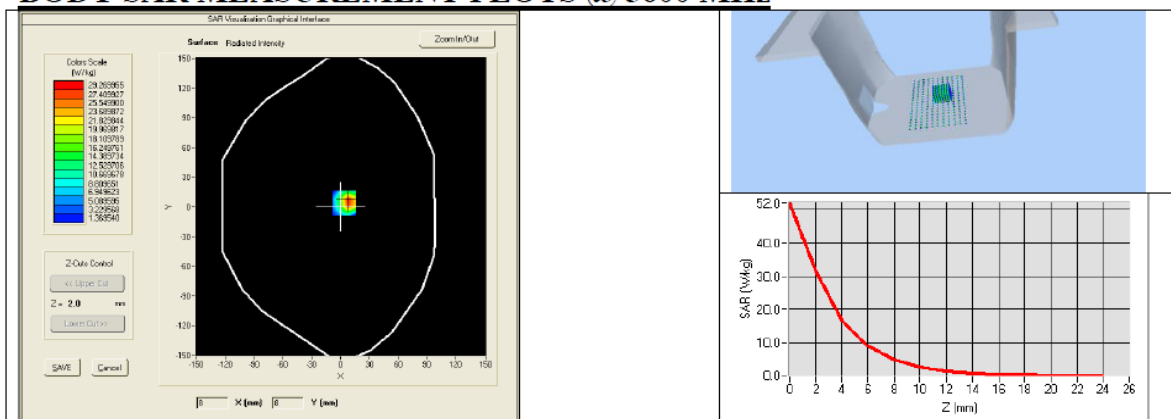
BODY SAR MEASUREMENT PLOTS @ 5200 MHz



BODY SAR MEASUREMENT PLOTS @ 5400 MHz



BODY SAR MEASUREMENT PLOTS @ 5600 MHz

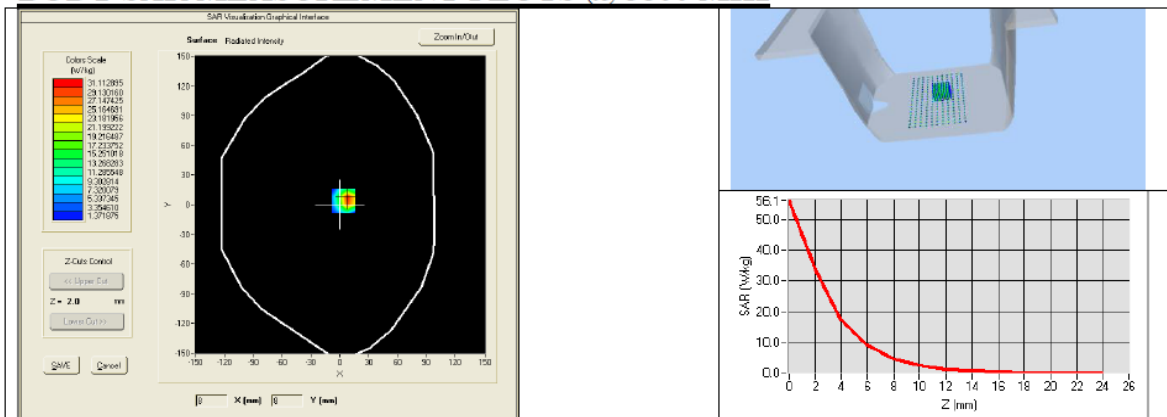




SAR REFERENCE WAVEGUIDE CALIBRATION REPORT

Ref: ACR.256.12.15.SATU.A

BODY SAR MEASUREMENT PLOTS @ 5800 MHz





8 LIST OF EQUIPMENT

| Equipment Summary Sheet | | | | |
|---------------------------------|----------------------|--------------------|---|---|
| Equipment Description | Manufacturer / Model | Identification No. | Current Calibration Date | Next Calibration Date |
| Flat Phantom | MVG | SN-20/09-SAM71 | Validated. No cal required. | Validated. No cal required. |
| COMOSAR Test Bench | Version 3 | NA | Validated. No cal required. | Validated. No cal required. |
| Network Analyzer | Rhode & Schwarz ZVA | SN100132 | 02/2024 | 02/2025 |
| Calipers | Carrera | CALIPER-01 | 01/2024 | 01/2025 |
| Reference Probe | MVG | EPG122 SN 18/11 | 10/2023 | 10/2024 |
| Multimeter | Keithley 2000 | 1188656 | 01/2024 | 01/2025 |
| Signal Generator | Agilent E4438C | MY49070581 | 01/2024 | 01/2025 |
| Amplifier | Aethercomm | SN 046 | Characterized prior to test. No cal required. | Characterized prior to test. No cal required. |
| Power Meter | HP E4418A | US38261498 | 01/2024 | 01/2025 |
| Power Sensor | HP ECP-E26A | US37181460 | 01/2024 | 01/2025 |
| Directional Coupler | Narda 4216-20 | 01386 | Characterized prior to test. No cal required. | Characterized prior to test. No cal required. |
| Temperature and Humidity Sensor | Control Company | 150798832 | 10/2023 | 10/2024 |

Appendix E: SAR SYSTEM VALIDATION

Per FCC KDB 865664 D02v01, 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 865664 D01 v01 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.

SAR System Validation Summary

| Date | Freq. [MHz] | Probe S/N | Tissue type | COND. PERM. | COND. PERM. | CW Validation | | | Mod. Validation | | |
|------------|-------------|-------------------|-------------|--------------|------------------|---------------|-----------------|----------------|-----------------|-------------|-----------------------------|
| | | | | (σ) | (ϵ_r) | sensitivity | Probe linearity | Probe isotropy | Mod. type | Duty factor | Peak to average power ratio |
| 09/09/2024 | 835 | SN 25/22 EPGO 375 | Head | 42.3 | 0.89 | PASS | PASS | PASS | GMSK | PASS | N/A |
| 09/09/2024 | 1800 | SN 25/22 EPGO 375 | Head | 40.57 | 1.36 | PASS | PASS | PASS | GMSK | PASS | N/A |
| 09/09/2024 | 1900 | SN 25/22 EPGO 375 | Head | 40.31 | 1.38 | PASS | PASS | PASS | GMSK | PASS | N/A |
| 09/09/2024 | 2450 | SN 25/22 EPGO 375 | Head | 38.99 | 1.88 | PASS | PASS | PASS | OFDM | PASS | N/A |
| 09/09/2024 | 5G | SN 25/22 EPGO 375 | Head | 36.68 | 4.45 ~ 5.08 | PASS | PASS | PASS | OFDM | PASS | N/A |

NOTE: While the probes have been calibrated for both a 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 D01v01 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 OFDM according to KDB 865664.

Appendix F: The Check Data of Impedance and Return Loss

The information are included in the SAR report to qualify for the three-year extended calibration interval;

| Impedance in head liquid | | | | | | | Date: 09/09/2024 |
|--------------------------|-----------|------------------------|--------|------------------------|------------------------|--------|------------------------|
| Freq. (MHz) | Temp (°C) | Dipole Impedance Re(z) | | | Dipole Impedance Im(z) | | |
| | | measured | Target | $\Delta (\pm 5\Omega)$ | measured | Target | $\Delta (\pm 5\Omega)$ |
| 835 | 22 | 52.30 | 51.60 | 0.7 | 2.30 | 1.70 | 0.6 |
| 1800 | 22 | 46.50 | 48.60 | -2.1 | 0.60 | -0.50 | 1.1 |
| 1900 | 22 | 50.30 | 51.70 | -1.4 | 4.20 | 4.90 | -0.7 |
| 2450 | 22 | 45.90 | 46.50 | -0.6 | -0.36 | -0.20 | -0.1 |
| 5G | 22 | 36.06 | 35.30 | 0.76 | 4.44 | 5.27 | -0.83 |

| Return loss in head liquid | | | | | Date: 09/09/2024 |
|----------------------------|-----------|-----------------|--------|---------------------|------------------|
| Freq. (MHz) | Temp (°C) | Return loss(dB) | | | |
| | | measured | Target | $\Delta (\pm 20\%)$ | |
| 835 | 22 | -30.35 | -32.78 | -7.41 | |
| 1800 | 22 | -37.89 | -36.92 | 2.63 | |
| 1900 | 22 | -24.33 | -25.64 | -5.11 | |
| 2450 | 22 | -30.95 | -29.05 | 6.54 | |
| 5G | 22 | -21.87 | -22.80 | 0.93 | |

| liquid | Freq. (MHz) | Temp (°C) | ϵ_r / relative permittivity | | | σ (s/m) / conductivity | | | ρ (kg/m ³) |
|--------|-------------|-----------|--------------------------------------|--------|--------------------|-------------------------------|--------|--------------------|-----------------------------|
| | | | measured | Target | $\Delta (\pm 5\%)$ | measured | Target | $\Delta (\pm 5\%)$ | |
| Head | 835 | 22 | 42.30 | 41.50 | 1.93 | 0.89 | 0.90 | -1.11 | 1000 |
| | 1800 | 22 | 40.50 | 40.00 | 1.25 | 1.36 | 1.40 | -2.86 | 1000 |
| | 1900 | 22 | 40.31 | 40.00 | 0.78 | 1.38 | 1.40 | -1.43 | 1000 |
| | 2450 | 22 | 38.99 | 39.20 | -0.54 | 1.88 | 1.80 | 4.44 | 1000 |
| | 5G | 22 | 36.06 | 35.30 | 0.76 | 4.44 | 5.27 | -0.83 | 1000 |

| Test Equipment | Manufacturer | Model | Serial Number | Calibration | |
|-------------------------------|-----------------|-----------------|---------------|--------------------------|-------------------------|
| | | | | Calibration Date (D.M.Y) | Calibration Due (D.M.Y) |
| Signal Generator | Agilent | N5182A | MY47070282 | Jul. 04, 2024 | Jul. 03, 2025 |
| Multimeter | Keithley | Multimeter 2000 | 4078275 | Jul. 04, 2024 | Jul. 03, 2025 |
| Network Analyzer | Agilent | 8753E | US38432457 | Jul. 04, 2024 | Jul. 03, 2025 |
| Power Meter | Agilent | E4418B | GB43312526 | Jul. 04, 2024 | Jul. 03, 2025 |
| Power Sensor | Agilent | E9301A | MY41497725 | Jul. 04, 2024 | Jul. 03, 2025 |
| Power Amplifier | PE | PE15A4019 | 112342 | N/A | N/A |
| Temperature / Humidity Sensor | Control company | TH101B | 152470214 | Jul. 04, 2024 | Jul. 03, 2025 |

*******END OF REPORT*******

