

Annex E. Calibration Certificates

ID	Device	Type/Model	S/N	Manufacturer	Calibration Certificate
004-006	Dosimetric E-field Probe	EX3DV4	7604	SPEAG	"See attachments"
405-000	3500 MHz System Validation Dipole	D3.5GHzV2	1123	SPEAG	"See attachments"
404-000	3700 MHz System Validation Dipole	D3.7GHzV2	1093	SPEAG	"See attachments"
071-000	750 MHz System Validation Dipole	D750V3	1136	SPEAG	See attached files

Dipole calibration

According to the KDB 865664 D01, a dipole must be calibrated using a fully validated SAR system according to the tissue dielectric parameters and SAR probe calibration frequency required for device testing. However, instead of the typical annual calibration recommended by measurement standards, longer calibration intervals of up to three years may be considered when it is demonstrated that the SAR target, impedance and return loss of a dipole have remain stable according to the following requirements.

The test laboratory must ensure that the required supporting information and documentation are included in the SAR report to qualify for the three-year extended calibration interval; otherwise, recommend annual calibration applies.

Immediate re-calibration is required for the following conditions:

1. When the most recent return-loss result, measured at least annually, deviates by more than 20% from the previous measurement (i.e. value in dB \times 0.2) or not meeting the required 20 dB minimum return-loss requirement.
2. When the most recent measurement of the real or imaginary parts of the impedance, measured at least annually, deviates by more than 5 Ohm from the previous measurement

The below results show the latest return loss and impedance measurements for each dipole performed by the lab:

ID #405-000 Dipole 3500 MHz Body TSL			
	Return Loss [dB]	Impedance [Ω]	Date
Original Calibration	-31.40	51.30 + 2.40j	2021-05-21
Dipole verification	-32.34	51.90 - 1.57j	2023-06-06
ID #404-000 Dipole 3700 MHz Body TSL			
	Return Loss [dB]	Impedance [Ω]	Date
Original Calibration	-21.00	41.30 + 2.30j	2021-05-21
Dipole verification	-24.16	46.30 + 4.67j	2023-06-06
ID #404-000 Dipole 750 MHz Body TSL			
	Return Loss [dB]	Impedance [Ω]	Date
Original Calibration	-27.9	49.4 - 4.0 j	2021-01-21
Dipole verification	-30.3	48.4 - 2.6 j	2022-11-30