



CERTIFICATE OF ACCREDITATION

The ANSI National Accreditation Board

Hereby attests that

Radcal Corporation
426 West Duarte Road
Monrovia, CA 91016

Fulfills the requirements of

ISO/IEC 17025:2017

and national standard

ANSI/NCSL Z540-1-1994 (R2002)

In the field of

CALIBRATION

This certificate is valid only when accompanied by a current scope of accreditation document.
The current scope of accreditation can be verified at www.anab.org.

A handwritten signature in black ink, appearing to read 'R.D.L.', is positioned above a horizontal line.

R. Douglas Leonard Jr., VP, PILR SBU

Expiry Date: 01 July 2023

Certificate Number: AC-1553



This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2017.
This accreditation demonstrates technical competence for a defined scope and the operation of a laboratory
quality management system (refer to joint ISO-ILAC-IAF Communiqué dated April 2017).

**SCOPE OF ACCREDITATION TO ISO/IEC 17025:2017
AND ANSI/NCSL Z540-1-1994 (R2002)**

Radcal Corporation

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CALIBRATION

Valid to: **July 01, 2023**

Certificate Number: **AC-1553**

Ionizing Radiation

Parameter/Equipment	Range	Expanded Uncertainty of Measurement (+/-)	Reference Standard, Method, and/or Equipment
Dose, Diagnostic (40 to 150) kV (1.4 to 14) mm Al HVL	(1 to 100) mGy	3.3 % of reading	Internal Method (Anode/Filter W/Al, W/Cu)
Dose, Mammographic (20 to 50) kV (0.15 to 1.4) mm Al HVL	(1 to 100) mGy	3.3 % of reading	Internal Method (Anode/Filter W/Al, W/Ag, W/Rh, Mo/Mo, Mo/Rh, Rh/Rh)
Non-Invasive kVp, Diagnostic	(40 to 150) kVp	0.055 kV	Dynalyzer Internal Method (Anode/Filter W/Al, W/Cu)
Non-Invasive kVp, Mammographic	(20 to 40) kVp	0.21 kV	Dynalyzer Internal Method (Anode/Filter W/Al, W/Ag, W/Rh, Mo/Mo, Mo/Rh, Rh/Rh)
Invasive kVp	(10 to 75) kV	0.16 kV	Dynalyzer Internal Method
Anode Current Fluoro mode Rad mode	(10 to 20) mA (50 to 250) mA	0.14 mA 0.43 mA	HP 34401A Multimeter Internal Method
Filament Current	2.5 A +/- 5 % (0.1 to 1) A	0.013 A 2 % of reading	Shunt Internal Method
Dynalyzer Display	± (40 to 150) kV (25 to 1 000) mA	0.1 % of reading 0.083 % of reading	HP 34401A Multimeter Internal Method

Ionizing Radiation

Parameter/Equipment	Range	Expanded Uncertainty of Measurement (+/-)	Reference Standard, Method, and/or Equipment
mAs	(0.001 to 9 999) mAs	0.15 % of reading	90M9 mAs sensor, HP 5315A Counter Internal Method
Gamma	(5 to 20) μ Gy/min (0.02 to 3) mGy/min 30 mGy/min	3.3 % of reading	Reference Chambers, ¹³⁷ Cs, ⁶⁰ Co, Internal Method

Calibration and Measurement Capability (CMC) is expressed in terms of the measurement parameter, measurement range, expanded uncertainty of measurement and reference standard, method, and/or equipment. The expanded uncertainty of measurement is expressed as the standard uncertainty of the measurement multiplied by a coverage factor of 2 ($k=2$), corresponding to a confidence level of approximately 95%.

Notes:

1. On-site calibration service is available for this parameter, since on-site conditions are typically more variable than those in the laboratory, larger measurement uncertainties are expected on-site than what is reported on the accredited scope.
2. This scope is formatted as part of a single document including Certificate of Accreditation No. AC-1553.



R. Douglas Leonard Jr., VP, PILR SBU

