

## Scope of Accreditation

**For**

### RTI Electronics, Inc.

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In recognition of a successful assessment to ISO/IEC 17025:2005 to the following Calibration and Measurement Capabilities, accreditation has been granted to **RTI Electronics, Inc.** for the following:

Accreditation granted through: **November 21, 2018**

## Calibration

### Ionizing Radiation - Dosimetry

Calibration Parameter / Equipment	Range	Reference Beam Quality (IEC 61267 code) or [PTB code] or {University of Wisconsin code}, Target/Filtration - Reference Voltage	1 <sup>st</sup> HVL (mm Al)	Expanded Uncertainty of Measurement (+/-)	Remarks
Radiography	(35 to 150) kV	(RQR 5) W/2.83 mm Al – 70 kV (RQA 5) W/23.8 mm Al – 70 kV  (RQR 9) W/3.75 mm Al – 120 kV	2.6 6.2  5.2	1.3 % of reading	Radcal RC6M Ion Chamber  Radcal RC6 Ion Chamber
Mammography	(18 to 49) kV	[MMV 28] Mo/0.03 mm Mo – 28 kV [MRV 30] Mo/0.025 mm Rh – 30 kV [WRV 30] W/0.05 mm Rh – 30 kV [WSV 30] W/0.05 mm Ag – 30 kV [WAV 30] W/0.5 mm Al – 30 kV [WAH 30] W/2.5 mm Al – 30 kV	0.32 0.39 0.52 0.56 0.41 0.98	1.3 % of reading	Radcal RC6M Ion Chamber
CT Dose	(35 to 150) kV	{UW 150 M} W/2.7 mm Al + 0.25 mm Cu – 150 kV {UW 120 M} W/6.7 mm Al – 120 kV {UW 100 M} W/4.7 mm Al – 100 kV {UW 80 M} W/2.7 mm Al – 80 kV	9.9 6.9 5.1 3.1	2.1 % of reading	Standard Imaging A101 Ion Chamber
CT-Dose Profiler	(35 to 150) kV	(RQR 9) W/3.75 mm Al – 120 kV	5.2	1.4 % of reading	Radcal RC6 Ion Chamber

**Ionizing Radiation - Dosimetry**

Calibration Parameter/Equipment	Range	Expanded Uncertainty of Measurement (+/-)	Remarks
Electrometers – DC Current	2 pA (25 to 100) pA 100 pA to 10 $\mu$ A	6.5 % of reading 0.7 % of reading 0.3 % of reading	Keithley 263
MAS meters – DC Current	0.5 mA to 10 A	0.4 % of reading	Fluke 287 & 189, Electrometer
Electrometers – Charge	2 pC (2 to 100) pC 100 pC to 100 mC	6.5 % of charge 1.5 % of charge 0.19 % of charge	Keithley 263
Non-Invasive kVp Meters	(18 to 150) kV	0.7 % of reading	HV Measurement System (Radiography, Fluoroscopy, Mammography, Dental & CT)

**Photometry and Radiometry – Spectrally-Integrated Measurements for Sources and Detectors**

Calibration Parameter/Equipment	Range	Expanded Uncertainty of Measurement (+/-)	Remarks
Luminance Responsivity	(10 to 1 000) cd/m <sup>2</sup>	3.3 % of reading	Reference Detector L100
Illuminance Responsivity	(10 to 100) lux	3.2 % of reading	Reference Detector L100

Calibration and Measurement Capability (CMC) is expressed in terms of the measurement parameter, measurement range, expanded uncertainty of measurement and remarks. 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%.

Approved by:



 R. Douglas Leonard  
Chief Technical Officer

 Date: August 17, 2016

Re-Issued: 10/23/15

Revised: 8/17/16