

CERTIFICATE OF ACCREDITATION

The ANSI National Accreditation Board

Hereby attests that

Gentec Électro-Optique Inc. Gentec Electro-Optics, Inc.

> 445 St-Jean-Baptiste, Suite 160 Quebec, Canada G2E 5N7

> > Fulfills the requirements of

ISO/IEC 17025:2017

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.

Jason Stine, Vice President

Expiry Date: 02 April 2027 Certificate Number: AC-2666 ANAB TO THE LOUIS OF THE LOUIS







SCOPE OF ACCREDITATION TO ISO/IEC 17025:2017

Gentec Électro-Optique Inc. Gentec Electro-Optics, Inc.

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CALIBRATION

Valid to: April 2, 2027 Certificate Number: AC-2666

Electrical – DC/Low Frequency

Parameter/Equipment	Range	Expanded Uncertainty of Measurement (+/-)	Reference Standard, Method, and/or Equipment
Monitors by Electrical	(0.1 to 0.99) μW (0.001 to 0.99) μA 1 μW to 1 W 1 μA to 20 mA	0.5 % of reading + 0.6 <i>R</i> 0.25 % of reading + 0.6 <i>R</i>	Comparison to Current Source (Direct Method)
Calibration of Power Monitors by Electrical Simulation ^{1,2}	500 nW to 30 kW 0.5 mV to 2.5 V	0.25 % of reading + 0. 6 <i>R</i>	Comparison to Digital
Calibration of Energy Monitors by Electrical Simulation ^{1,2}	50 fJ to 7.5 kJ 0.5 mV to 2.5 V	0.25 % of reading + 0. 6 <i>R</i>	Multimeter (Direct Method)

Photometry and Radiometry

Version 005 Issued: February 21, 2025

Parameter/Equipment	Range	Expanded Uncertainty of Measurement (+/-) Reference Standard, Method, and/or Equipment
	Power and Sensitivity:	
	(0.5 to 500) W	
	0.1 μV/W to 10 V/W	
	(1 064, 1 070) nm	2.5 % of reading Comparison with Laser
	(248 to 299) nm	4.1 % of reading Power Meter/Detector
	300 to 1 565) nm	3.1 % of reading (Substitution Method)
	(1 566 to 2 100) nm	4 % of reading
	(2 101 to 2 500) nm	6.7 % of reading
	10.6 µm	2.5 % of reading





Photometry and Radiometry

Parameter/Equipment	Range	Expanded Uncertainty of Measurement (+/-)	Reference Standard, Method, and/or Equipment
Optical Power Meter – XLP Series	Power and Sensitivity: (0.1 to 2) W 1 mV/W to 1 V/W (1 064, 1 070) nm (248 to 299) nm (300 to 1 565) nm (1 566 to 2 100) nm (2 101 to 2 500) nm 10.6 μm	1.9 % of reading 3.8 % of reading 2.7 % of reading 3.7 % of reading 6.6 % of reading 2.5 % of reading	Comparison with Laser Power Meter/Detector (Substitution Method)
Optical Power Meter – High Power	Power and Sensitivity: 100 W to 10 kW 15 μV/W to 15 V/W (1 064, 1 070) nm (248 to 299) nm (300 to 1 565) nm (1 566 to 2 500) nm (100 to 300) W 10.6 μm	3.6 % of reading 4.9 % of reading 4 % of reading 7.2 % of reading 4.7 % of reading	Comparison with Laser Power Meter/Detector (Substitution Method)
Optical Power Meter – PH Series, Pronto-Si	Power and Sensitivity: 5 nW to 10 mW 5 mA/W to 2 A/W (250 to 1 650) nm	1.5 % of reading	Comparison with Laser Power Meter/Detector (Substitution Method)
Optical Power Meter – IS Series	Power and Sensitivity: 100 µW to 1000 W 300 nA/W to 1 mA/W (400 to 499) nm (500 to 1 069) nm 1 070 nm	3.1 % of reading 3.3 % of reading 2.4 % of reading	Comparison with Laser Power Meter/Detector (Substitution Method)
Optical Energy Meter – QE Series	Energy and Sensitivity: (0.4 to 150) mJ 0.1 V/J to 4 kV/J 1064 nm (248 to 299) nm (300 to 1 565) nm (1 566 to 2 100) nm (2 101 to 2 500) nm 10.6 µm	2.8 % of reading 4.3 % of reading 3.3 % of reading 4.2 % of reading 6.9 % of reading 3.2 % of reading	Comparison with Laser Power Meter/Detector (Substitution Method)

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Photometry and Radiometry

Parameter/Equipment	Range	Expanded Uncertainty of Measurement (+/-)	Reference Standard, Method, and/or Equipment
Optical Energy Meter – UP and Calorimeter Series	Energy and Sensitivity: (0.5 to 2 500) J 1 μV/J to 50 mV/J (1064, 1 070) μm (248 to 299) nm (300 to 1 565) nm (1 566 to 2 100) nm (2 2101 to 2 500) nm 10.6 μm	3.4 % of reading 4.7 % of reading 3.9 % of reading 4.6 % of reading 7.1 % of reading 5.7 % of reading	Comparison with Laser Power Meter/Detector (Substitution Method)
Optical Energy Meter – PE Series	Energy and Sensitivity: 10 pJ to 33 nJ 0.1 V/μJ to 300 V/nJ (250 to 1 080) nm	2.5 % of reading	Comparison with Laser Power Meter/Detector (Substitution 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. R = resolution of unit under test.
- 2. Into loads from $100 \ k\Omega$ to $1 \ M\Omega$.
- 3. This scope is formatted as part of a single document including Certificate of Accreditation No. AC-2666.

Jason Stine, Vice President

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