PERRY JOHNSON LABORATORY ACCREDITATION, INC.

Certificate of Accreditation

Perry Johnson Laboratory Accreditation, Inc. has assessed the Laboratory of:

Quantifi Photonics Limited

12 - 14 Parkway Drive, Rosedale, Auckland, New Zealand 0632

(Hereinafter called the Organization) and hereby declares that Organization 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 (as outlined by the joint ISO-ILAC-IAF Communiqué dated April 2017):

Electrical and Optical Calibration
(As detailed in the supplement)

Accreditation claims for such testing and/or calibration services shall only be made from addresses referenced within this certificate. This Accreditation is granted subject to the system rules governing the Accreditation referred to above, and the Organization hereby covenants with the Accreditation body's duty to observe and comply with the said rules.

For PJLA:

Tracy Szerszen
President

Initial Accreditation Date:	*Issue Date:*	*Expiration Date:*
March 04, 2022	March 04, 2022	May 31, 2024
Revision Date:	*Accreditation No.:*	*Certificate No.:*
June 20, 2023	111484	L22-183-R1

Perry Johnson Laboratory Accreditation, Inc. (PJLA)
755 W. Big Beaver, Suite 1325
Troy, Michigan 48084

The validity of this certificate is maintained through ongoing assessments based on a continuous accreditation cycle. The validity of this certificate should be confirmed through the PJLA website: www.pjlabs.com

Certificate of Accreditation: Supplement

Quantifi Photonics Limited
12 - 14 Parkway Drive, Rosedale, Auckland, New Zealand 0632
Contact Name: Mr. Larry Mu Phone: +64 9 478 4849

Accreditation is granted to the facility to perform the following calibrations:

Optical

MEASURED INSTRUMENT, QUANTITY OR GAUGE	RANGE OR NOMINAL DEVICE SIZE AS APPROPRIATE	CALIBRATION AND MEASUREMENT CAPABILITY EXPRESSED AS AN UNCERTAINTY (±)	CALIBRATION EQUIPMENT AND REFERENCE STANDARDS USED
Fiber Optics Power Measuring Equipment [F]	+27 to -45 dBm (800 to 900 nm)	0.215 dB	Comparison against a Reference Power meter, IEC 61315:2019 (5.1) VIAVI MOPM-C1PMH4-MPMHP, EXFO IQ-1102x, Keysight 81624B. Procedure CWI-01, CWI-02, CWI-03, CWI-05, CWI-10
	+27 to -45 dBm (960 to 1 600 nm)	0.21 dB	Comparison Against a Reference Power Meter IEC 61315:2019 (5.1) VIAVI MOPM-C1PMH4-MPMHP, EXFO IQ-1102x, Keysight 81624B. Procedure CWI-01, CWI-02, CWI-03, CWI-05, CWI-10
	+27 to -45 dBm (1 600 to 1 635 nm)	0.24 dB	Comparison Against a Reference Power Meter IEC 61315:2019 (5.1) VIAVI MOPM-C1PMH4-MPMHP, EXFO IQ-1102x, Keysight 81624B. Procedure CWI-01, CWI-02, CWI-03, CWI-05, CWI-10
Optical Power Linearity Measuring Equipment [F]	+10 to -45 dBm (800 to 1 635 nm)	0.015 dB	Comparison Against a Reference Power Meter, IEC 61315:2019 (7.3) VIAVI MOPM-C1PMH4-MPMHP, EXFO IQ-1102x, Keysight 81624B. Procedure CWI-01, CWI-02
	+27 to +10 dBm (800 to 1 635 nm)	0.036 dB	Comparison Against a Reference Power Meter, IEC 61315:2019 (7.3) VIAVI MOPM-C1PMH4-MPMHP, EXFO IQ-1102x, Keysight 81624B. Procedure CWI-01, CWI-02

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Insertion Loss Measuring Equipment [F]	Up to 40 dB (800 to 1 635 nm)	0.075 dB	Reference Power meter, IEC 61300-3-4:2013 5.4.6 VIAVI MOPM-C1PMH4-MPMHP, EXFO IQ-1102x, Keysight 81624B. Procedure CWI-01
Attenuator Linearity Measuring Equipment [F]	Up to 40 dB (800 to 1 635 nm)	0.023 dB	Reference Power meter, IEC 61300-3-4:2013 5.4.6 VIAVI MOPM-C1PMH4-MPMHP, EXFO IQ-1102x, Keysight 81624B. Procedure CWI-01
Wavelength Measuring Equipment [F]	600 nm to 1 450 nm (499.654 1 THz to 206.753 5 THz) and 1 650 nm to 1 700 nm (181.692 4 THz to 176.348 5 THz)	104.60 pm	EXFO IQ-5320-EA Yokogawa AQ6370D-02 IEC 62129-1 IEC 62129-2 Procedure CWI-03, CWI-10
	1 450 nm to 1 650 nm (206.753 5 THz to 181.692 4 THz)	4.80 pm	EXFO IQ-5320-EA Yokogawa AQ6370D-02 IEC 62129-1 IEC 62129-2 Procedure CWI-03, CWI-10

Electrical

MEASURED INSTRUMENT, QUANTITY OR GAUGE	RANGE OR NOMINAL DEVICE SIZE AS APPROPRIATE	CALIBRATION AND MEASUREMENT CAPABILITY EXPRESSED AS AN UNCERTAINTY (±)	CALIBRATION EQUIPMENT AND REFERENCE STANDARDS USED
DC voltage Equipment to Source [F]	1 mV to 10 V	418.25 uV	Keysight 34461A Procedure CWI-02

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Accreditation is granted to the facility to perform the following calibrations:

1. The CMC (Calibration and Measurement Capability) stated for calibrations included on this scope of accreditation represents the smallest measurement uncertainty attainable by the laboratory when performing a more or less routine calibration of a nearly ideal device under nearly ideal conditions. It is typically expressed at a confidence level of 95 % using a coverage factor *k* (usually equal to 2). The actual measurement uncertainty associated with a specific calibration performed by the laboratory will typically be larger than the CMC for the same calibration since capability and performance of the device being calibrated and the conditions related to the calibration may reasonably be expected to deviate from ideal to some degree.

2. The laboratories range of calibration capability for all disciplines for which they are accredited is the interval from the smallest calibrated standard to the largest calibrated standard used in performing the calibration. The low end of this range must be an attainable value for which the laboratory has or has access to the standard referenced. Verification of an indicated value of zero in the absence of a standard is common practice in the procedure for many calibrations but by its definition it does not constitute calibration of zero capacity.

3. The presence of a superscript F means that the laboratory performs calibration of the indicated parameter at its fixed location. Example: Outside Micrometer^{F} would mean that the laboratory performs this calibration at its fixed location.

4. Measurement uncertainties obtained for calibrations performed at customer sites can be expected to be larger than the measurement uncertainties obtained at the laboratories fixed location for similar calibrations. This is due to the effects of transportation of the standards and equipment and upon environmental conditions at the customer site which are typically not controlled as closely as at the laboratories fixed location.

5. This is the primary site for all quality management system activities.