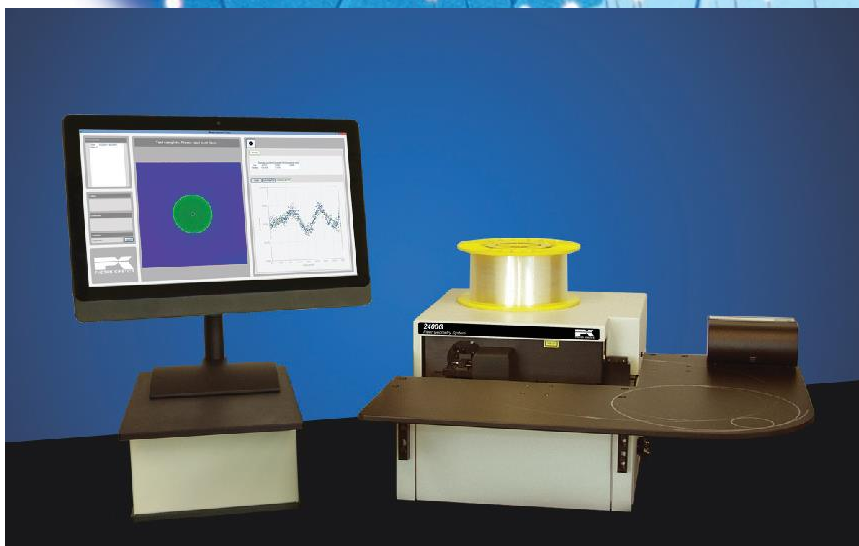


2400G Fiber Geometry System



**Essential measurement capability
for fiber manufacturers**

Based on the factory-proven 2400, the 2400G Fiber Geometry System provides high-performance characterization of single-mode and multimode fiber geometry on a Windows-based measurement platform with an operator-friendly graphic user interface. The 2400G can also be optionally configured to perform other measurements such as coating geometry and fiber curl. With high-speed fiber handling, simple fiber alignment and fast data acquisition, the 2400G delivers accurate, repeatable and reliable characterization of the both single-mode and multimode fiber geometry in the most demanding test environments.

High-speed Fiber Preparation and Loading

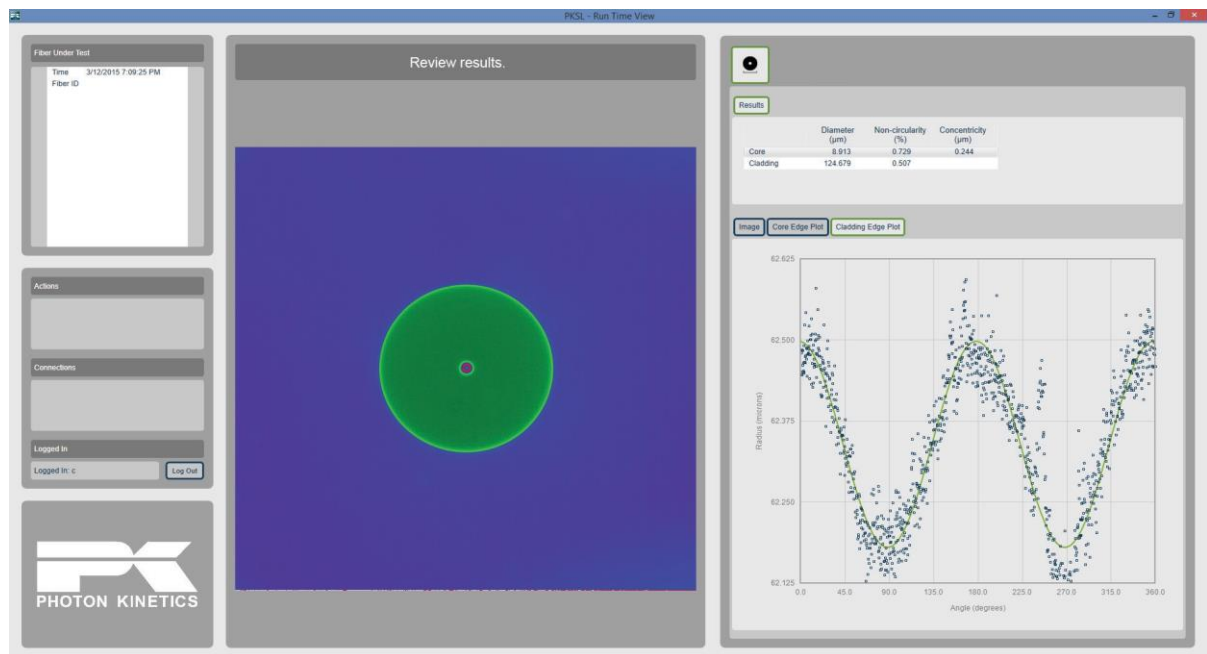
For many fiber measurements, the time required to prepare and load test samples is often longer than the time it takes to actually perform the measurement. That's why Photon Kinetics pioneered high-speed fiber handling tools that have been integrated with virtually all of our fiber measurement systems. Precision fiber holders with compatible cleavers allow you to cleave both fiber ends, load them and begin testing in less than 30 seconds. The unique ability to inspect fiber end-faces prior to the start of data acquisition ensures that time is not wasted because of contamination or defects on the fiber end-faces that could affect measurement results.

Simple, Graphical User Interface

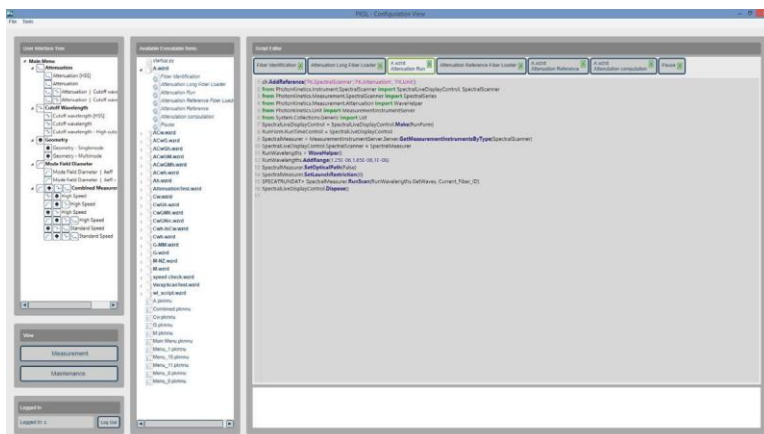
The 2400G is a member of the Photon Kinetics Scripting Language (PKSL) test family. This means that the 2400G features a simple, easy-to-use, graphical user interface designed specifically for production test operators. But, behind this uncluttered user interface the PKSL software provides powerful test customization and other capabilities unrivaled by any other fiber test instrument.

Production-proven, Modular Design

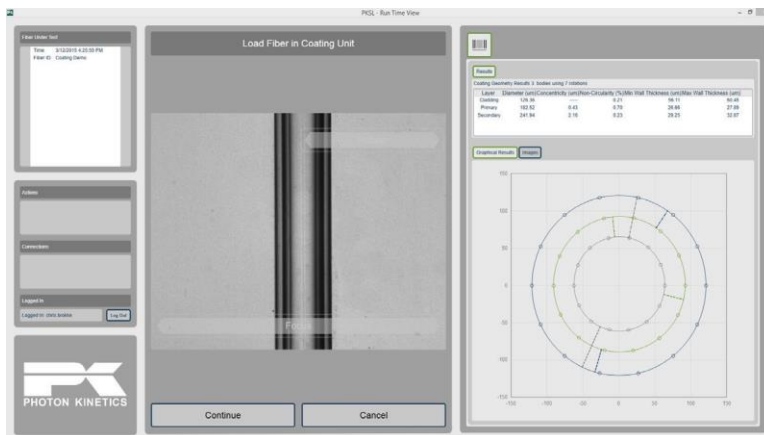
It is essential that production fiber test systems function reliably day after day. The basic 2400G design and components have proven this level of dependability for years in the factories of the world's leading fiber manufacturers. The system employs a modular optical system that enables a wide range of fiber geometry measurements to be made on a compact measurement platform. Modularity also makes the 2400G easy to maintain, reducing test station downtime.



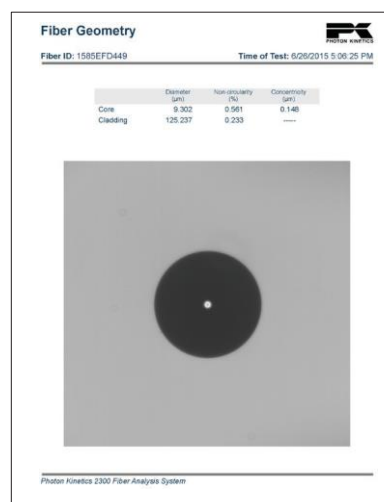
Test customization begins with the PKSL Test Wizard which steps the user through the selection of measurements to perform with the 2400G system and/or options, plus loading/alignment, test parameter and results handling options. Once the Test Wizard has created a test sequence, the resulting test sequence script can be edited by the user, enabling an even greater test customization. Other PKSL capabilities include the ability to create customized test selection menus and have them displayed in local language.



While the standard 2400G performs only fiber geometry measurements, the system is able to perform coating geometry and fiber curl characterization with the addition of the 2402G and 2411G options. The 2402G Coating Geometry Option provides fast, reliable dark field measurements on fibers having colored or natural coatings up to 500 μm OD, while the 2411G Fiber Curl Option measures the curl radius of standard 125 μm cladding fibers.



The 2400G offers several options for displaying, printing and storing test results. These include simple display of results in the Results Panel of the main Measurement View, pre-formatted reports that can be printed and/or saved, and storage of the results files to a local disk or remote network location. Saved results can be viewed offline with the included PK File Viewer application. Measurement results, and all associated data can also be stored to the included SQL Express database. More customized data storage or results reporting can be obtained by modifying the PKSL test script, or by incorporating custom script files either created by the user or supplied by Photon Kinetics as a special option.



Specifications

2400G Fiber Geometry		
Applicable Standards	ITU-T Recommendation G.650.1 IEC 60793-1-20 TIA FOTP-176	
Fibers Measured	Single-mode and Multimode Cladding diameter: 60 to 140 μm	
Numerical Aperture		
Launch Measurement	0.40 0.45	
Measurement Wavelengths		
Core and Cladding	850 $\pm$ 25 nm	
Repeatability ¹	Single-mode	Multimode
Core Diameter	$\leq 0.05 \mu\text{m}$ ²	$\leq 0.08, \leq 0.09, \leq 0.10 \mu\text{m}$ ³
Cladding Diameter	$\leq 0.05 \mu\text{m}$	$\leq 0.05 \mu\text{m}$
Core Non-Circularity	$\leq 1.0\%$ ²	$\leq 1.0\%$ ³
Cladding Non-Circularity	$\leq 0.1\%$	$\leq 0.1\%$
Core/Clad Concentricity	$\leq 0.04 \mu\text{m}$	$\leq 0.05 \mu\text{m}$
Measurement Time	< 1 minute (including fiber prep)	
Laser Safety Compliance	IEC 60825-1 Class 1	

Notes:

- 1-sigma, 5 repetitions, fiber end not moved, assumes measured cleave angle ≤ 1.5 degrees.
2. For a fiber with a nominal mode field diameter $\geq 9 \mu\text{m}$ at 1310 nm.
3. 50, 62.5 and 100 μm core diameters.

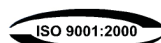
2402G Coating Geometry and 2411G Fiber Curl Options		
	2402G	2411G
Applicable Standards	Side-view light distribution IEC 60793-1-21 TIA FOTP-195	Side-view microscopy IEC 60793-1-34 TIA FOTP-111
Fibers Measured	Coating diameter: $\leq 500 \mu\text{m}$ Coating layers translucent at 970 nm	Cladding diameter: 125 μm Nominal Curl radius: 1 to 100 μm
Measurement Wavelength	970 nm nominal	Not Applicable
Repeatability	Coating diameter: $\leq 0.5 \mu\text{m}$ ¹ Cladding/coating concentricity: $\leq 0.5 \mu\text{m}$ ¹ Coating non-circularity: $\leq 0.5\%$	Curl radius: $\leq 1\%$ (re-measure) ² : $\leq 2.5\%$ (re-load) ²
Accuracy	Not applicable	$\leq 2.0\%$
Measurement Time	< 90 seconds	< 65 seconds

Notes:

- 1-sigma, 7 angular positions, fiber not removed.
- 2-sigma, 2 revolutions, 6 measurement positions per revolution, 4m curl radius.

Photon Kinetics includes products formerly branded as York Technology, PK Technology, GN Nettest and NetTest.

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