



## Features (SMLP5-5 Test Kit)

- Wave ID reduces test time
- Hand-held, rugged, lightweight
- Cost-effective, easy-to-use
- N.I.S.T traceable
- OLS4 Quad Light Source
- Dual or single Wave ID, CW, Tone
- Industry standard 2 kHz test Tone
- 50 µm and 62.5 µm mandrels
- OPM5-2D Optical Power Meter
- File management system organizes stored test data
- Storage capability >500 fibers
- USB port for download of stored data
- TRM™ PC Reporting Tool (Windows® compatible)
- Apply certification rules to test results
- Create professional test reports
- Archive test results

## Applications

- Certify multimode and single-mode links per TIA/EIA standards
- Fiber identification prior to splicing
- Passive Optical Networks (PON) testing
- Save test data for report generation with NOYES TRM Software

## NOYES®

### SMLP5-5 Test Kit with Wave ID, Set Reference, and Data Storage

The SMLP5-5 test kit combines the OPM5-2D optical power meter and OLS4 integrated LED and laser light source and is ideally suited for testing fiber optic networks with hybrid (single-mode and multimode) cables.

The OLS4 features 850/1300 nm LED output from a multimode output port and 1310/1550 nm laser output from a single-mode output port. Each wavelength may be transmitted individually at CW or with user selectable modulated Tone(SM output). Also, each wavelength may be transmitted with Wave ID. Both output ports are equipped with UCI based removable adapters to allow the output connectors to be inspected and cleaned.

The OPM5-2D is a full-featured, hand-held optical power meter designed for measuring optical power in premise, telco, or broadband networks and for performing insertion loss measurements on multimode or single-mode fiber optic links. The standard Wave ID feature (when used with NOYES OLS series light sources) automatically detects and sets the wavelength(s), preventing setup and measurement errors. It significantly increases efficiency and reduces technician errors—and saves testing time—by eliminating the need to test each wavelength individually. The OPM5-2D stores optical references for each calibrated wavelength and offers multiple test tone detection for fiber identification.

### Data Storage of Test Results

The OPM5-2D File Management system allows technicians to organize test results into multiple files and transfer stored results via USB to a PC for analyzing, generating reports, and printing. The supplied powerful PC Analysis and Reporting Tool (TRM® - Test Results Management software) allows users to apply industry standards based rules to test results and create comprehensive certification reports. Users can generate network Pass/Fail results demonstrating compliance to industry standards and illustrate headroom. TRM is a Windows® compatible software. The SMLP5-5 test kit is fully N.I.S.T. traceable.

**NOYES®**

### SMLP5-5 Test Loss Test Kit with PC Reporting Tool – TRM®



#### Powerful Pair

The SMLP loss test kit and TRM® Test Results Management software are a powerful pair.

- Increases efficiency
- Reduces technician errors
- Simple to operate with minimal training required
- Provides customized professional reports

#### Target Markets

Anyone testing fiber links who requires report generation applications include:

- Data networks
- Telecommunications providers
- CATV
- Industrial

#### WaveID Increases Efficiency and Reduces Errors

- Enables users to test two wavelengths simultaneously
  - Significantly reduces test time by eliminating the need to test each wavelength individually
- Automatically detects and sets received wavelengths
  - Eliminates loss measurement errors by automatically matching OPM to transmitted wavelength

#### Straightforward Results Storage and Easy File Management in the Field

- Simple to use interface allows for easy separation of results into files
- Keep cable/job results separated for fast customer report generation
- Access to files and results allows for quick and easy retest of fibers

## NOYES®

# SMLP5-5 Test Kit with Wave ID, Set Reference, and Data Storage

### File Naming and Data Management Editor

- Manage job information (Ends, Cable ID, Comments, and Operators) to meet documentation specifications in reports
- Create bi-directional results
- Combine results from multiple OPMs to create a complete job report
- Automatic backup of data

### Create Certification Results to Industry Standards (TIA/ISO/EN and applications)

- Apply standards-based rules to loss results
- Generate Pass/Fail information for each fiber
- Demonstrate compliance to industry standards

### Customized Reports

- Create professional personalized reports with company logos
- Reports meet accepted industry documentation standards
- Save common report options for quick generation of future reports
- Recall previously stored settings to save time generating reports for repeat customers
- Create certification reports showing fiber Pass/Fail results based on customer/consultant specifications, Industry Standard, and Industry Applications
- Show headroom values for the primary rule (typically the industry standard)
- Use PC analysis to verify if previously measured fibers (tested with NOYES loss test equipment) meet loss requirements of Standards and Rules

### Superior Customer Support

- Dedicated customer service, technical support and field sales available to support customers
- Knowledgeable timely technical support and customer service

The screenshot displays the NOYES SMLP5-5 software interface. It includes a menu bar (Home, OPM Editor, OTR Trace Viewer, OLTS Viewer/Editor, OTR Trace), a 'Results' window for 'Job1 Loc1\_Loc2 File1', and a 'Certification Results' window for 'MANCHESTER UNIV'.

**Test Results Table:**

| Fiber | 1310nm A->Z | 1550nm A->Z |
|-------|-------------|-------------|
| 1     | 2.63 dB     | -2.07 dB    |
| 2     | 2.38 dB     | 2.56 dB     |
| 3     | 2.42 dB     | 2.62 dB     |
| 4     | 2.56 dB     | 2.79 dB     |
| 5     | 2.36 dB     | 2.52 dB     |
| 6     | 2.52 dB     | 2.75 dB     |
| 7     | 2.52 dB     | 2.75 dB     |
| 8     | 2.43 dB     | 2.63 dB     |
| 9     | 2.52 dB     | 2.74 dB     |
| 10    | 2.71 dB     | 2.90 dB     |
| 11    | 2.65 dB     | 2.91 dB     |
| 12    | 2.36 dB     | 2.54 dB     |
| 13    | 2.60 dB     | 2.85 dB     |

**Certification Results Summary:**

- Number of Connections:** 2
- Number of Splices:** 0
- Loss Limit:** 800m (3.58 dB), 1300nm (3.39 dB), 2000 Meters

**Summary Table:**

| Date of Test | Time    | Fiber # | Loss (dB) | Length (m) | Pass | Headroom (dB) |
|--------------|---------|---------|-----------|------------|------|---------------|
| Jul 27, 2009 | 3:35 PM | 1       | 2.63      | 1.42       | Pass | 0.01          |
| Jul 27, 2009 | 3:36 PM | 2       | 2.38      | 1.42       | Pass | 0.88          |
| Jul 27, 2009 | 3:36 PM | 3       | 2.42      | 1.42       | Pass | 0.67          |
| Jul 27, 2009 | 3:36 PM | 4       | 2.56      | 1.42       | Pass | 1.05          |
| Jul 27, 2009 | 3:37 PM | 5       | 2.36      | 1.42       | Pass | 0.86          |
| Jul 27, 2009 | 3:37 PM | 6       | 2.52      | 1.42       | Pass | 0.67          |
| Jul 27, 2009 | 3:38 PM | 7       | 2.52      | 1.42       | Pass | 0.80          |
| Jul 27, 2009 | 3:38 PM | 8       | 2.43      | 1.42       | Pass | 1.09          |
| Jul 27, 2009 | 3:38 PM | 9       | 2.52      | 1.42       | Pass | 0.67          |
| Jul 27, 2009 | 3:38 PM | 10      | 2.71      | 1.42       | Pass | 0.90          |
| Jul 27, 2009 | 3:38 PM | 11      | 2.65      | 1.42       | Pass | 0.67          |
| Jul 27, 2009 | 3:38 PM | 12      | 2.36      | 1.42       | Pass | 0.88          |
| Jul 27, 2009 | 3:38 PM | 13      | 2.60      | 1.42       | Pass | 0.67          |

# NOYES® SMLP5-5 Test Kit with Wave ID, Set Reference, and Data Storage

## OLS4 Light Source Specifications <sup>a</sup>

| OPTICAL               | MM OPTICAL PORT   |                    | SM OPTICAL PORT  |                |
|-----------------------|---|--------------------|--|----------------|
| Wavelength            | 850<br>±30 nm   | 1300<br>-10/+50 nm | 1310<br>±20 nm   | 1550<br>±20 nm |
| Emitter Type          | LED   |                    | Laser  |                |
|                       | Class I FDA 21 CFR 1040.10 and 1040.11,<br>IEC 60825-1: 2007-03 |                    |  |                |
| Spectral Width        | 40 nm (typ)   | 120 nm (typ)       | 5 nm (max)   | 5 nm (max)     |
| Output Power          | >-20 dBm,<br>62.5 µm multimode <sup>b</sup>                     |                    | 0 dBm,<br>9 µm single-mode   |                |
| Output Stability      | ±0.1 dB over 8 hours<br>(after 5-minute warm-up)                |                    | ±0.05 dB over 1 hour<br>(after 15-minute warm-up)<br>±0.1 dB over 8 hours<br>(after 15-minute warm-up) |                |
| <b>GENERAL</b>        |   |                    |  |                |
| Power                 | 2 AA batteries, optional AC adapter                             |                    |  |                |
| Battery Life          | Typical 30 hours,<br>minimum 20 hours                           |                    | Typical 72 hours,<br>minimum 40 hours  |                |
| Available Adapters    | SC FC, ST, LC   |                    |  |                |
| Operating Temperature | -10°C to 50°C, 90 % RH (non-condensing)                         |                    |  |                |
| Storage Temperature   | -30°C to 60°C, 90 % RH (non-condensing)                         |                    |  |                |
| Size (H x W x D)      | 14.0 x 8.1 x 3.8 cm (5.5 x 3.2 x 1.5 in)                        |                    |  |                |
| Weight                | 0.29 kg (0.65 lb)   |                    |  |                |

## OPM5-2D Specifications <sup>a</sup>

| OPTICAL                | OPM5-2D                                   |
|------------------------|---|
| Calibrated Wavelengths | 850, 1300, 1310, 1490, 1550 nm            |
| Detector Type          | Germanium (Ge)                            |
| Measurement Range      | +6 to -60 dBm                             |
| Tone Detect Range      | +6 to -50 dBm<br>+6 to -45 dBm for 850 nm |
| Wavelength ID Range    | +6 to -50 dBm<br>+6 to -45 dBm for 850 nm |
| Accuracy <sup>c</sup>  | ±0.25 dB                                  |
| Resolution             | 0.01 dB                                   |
| Measurement Units      | dB, dBm, µW                               |
| <b>GENERAL</b>         |   |
| Power                  | 2 AA batteries, optional AC adapter       |
| Battery Life           | 300 hours                                 |
| Operating Temperature  | -10°C to 50°C, 90 % RH (non-condensing)   |
| Storage Temperature    | -30°C to 60°C, 90 % RH (non-condensing)   |
| Size (H x W x D)       | 14.0 x 8.1 x 3.8 cm (5.5 x 3.2 x 1.5 in)  |
| Weight                 | 0.26 kg (0.58 lb)                         |

### Notes:

- All specifications valid at 25°C unless otherwise specified.
- Output power will be approximately 3 dB less if a 50 µm mandrel-wrapped jumper is used instead of a 62.5 µm mandrel-wrapped jumper.
- Accuracy measured at 25°C and -10 dBm per N.I.S.T. standards.

## Ordering Information

Test jumpers and connector adapters are required for operation (purchased separately). Test jumpers with a variety of connector styles and fiber types and adapter caps for most common connectors may be purchased from AFL.

| INCLUDES   | AFL NO. |
|--|---------|
| OLS4 optical light source, OPM5-2D optical power meter, AA batteries, protective rubber boots, adapter cap, USB cable, PC reporting tool - TRM® (Windows® compatible), 50 and 62.5 µm mandrels, and carry case | SMLP5-5 |

## Calibration Plans

AFL recommends annual calibrations on NOYES Test and Inspection products. Prepaid Cal plans offer two annual calibrations at a discounted price, a convenient calibration expiration email service, express calibration services and access to the NOYES product knowledge base. Cal Plus plans offer the same services as the Cal plans with the addition of a two year extended warranty (three years total coverage).

| MODEL   | 2 YR CAL PLAN   | 2 YR CAL PLUS PLAN |
|---------|-----------------|--------------------|
|         | AFL NO.         | AFL NO.            |
| SMLP5-5 | CAL2-00-SMLP5-5 | CAL2-01-SMLP5-5    |



## NOYES International Sales and Service Contact Information

Available at [www.AFLglobal.com/NOYES/Contacts](http://www.AFLglobal.com/NOYES/Contacts)