



## AFL Power Meter (850, 980, 1310, 1490, 1550 and 1625nm)

### OPM5 Optical Power Meter

#### With Innovative File Management System

The AFL OPM5 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 AFL 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 stores optical references for each calibrated wavelength and offers multiple test tone detection for fiber identification. The OPM5 is fully N.I.S.T. traceable.

#### Data Storage of Test Results

The OPM5 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.

#### Applications

- Passive Optical Networks (PON) testing
- Save test data for Report Generation with AFL TRM® Software
- OPM5-2D (Ge) for Premises LAN/WAN multimode or single-mode networks
- OPM5-3D (InGaAs) for Telecommunications networks
- OPM5-4D (Filtered-InGaAs) for high power (+26 dBm) CATV Broadband networks or DWDM system applications



#### Features

- Multimode or single-mode applications
- Wave ID (auto identification/switching)
- Multiple-wavelength testing
- 270 Hz, 330 Hz, 1 kHz, 2 kHz tone detection
- Large LCD with backlight
- Power measurements in dBm or  $\mu$ W; insertion loss in dB
- Reference power level storage
- File management system organizes stored test data
- Storage capability > 500 fibers
- USB port and Windows® compatible software for download of stored data
- Power externally via USB port
- Automatic power-off function
- Battery gauge
- Long battery life with 2 AA alkaline, optional AC adapter
- Hand-held, rugged, lightweight



FOC Part # OPM 5-4D

## OPM5 Optical Power Meter with PC Reporting Tool – TRM®



### Powerful Pair

The OPM5 Optical Power Meter 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

## Upload test data files to PC via USB to utilize powerful data management and reporting tool – TRM®

### 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 AFL 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 TRM software interface with several key components:

- Job Information:** Job ID: Job1, Job1\_Loc1\_Loc2\_File1. Includes fields for Router, Cable, File, File Info, Parameters, Customers, Connector, Comment, OperatorOne, OperatorTwo, Main Model, Main SerialNumber, and Main SerialNumber.
- Fiber Loss Data Tables:**

Fiber	1310nm A to Z	1550nm A to Z
1	2.63 dB	2.07 dB
2	2.36 dB	2.56 dB
3	2.42 dB	2.62 dB
4	2.96 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	2.74 dB
11	2.60 dB	2.31 dB
20	2.72 dB	2.79 dB
- Certification Report:**

**MANCHESTER UNIV**

Customer: MANCHESTER UNIV, Site: TULLY HILLS, Site 1: TULLY HILLS, Site 2: LYONS HALL

Job ID: 8842310P, Job Name: 8842310P, Job Date: 07/27/2009, Job Time: 10:00 AM

Operator: J. B. BROWN, Operator 2: J. B. BROWN

Cabling Standard: ISO 11801 (International Standard) at cat. 50 or 62.5 µm fiber

Number of Connections: 2, Number of Fibers: 8, Loss Limit: 0.50dB @ 1310nm, 0.50dB @ 1550nm

Date of Test	Time	Loss#	Loss	Loss	Loss	Loss	Loss	Loss	Loss
07/27/2009	10:00 AM	1	2.63	2.07	2.63	2.07	2.63	2.07	2.63
07/27/2009	10:00 AM	2	2.36	2.56	2.36	2.56	2.36	2.56	2.36
07/27/2009	10:00 AM	3	2.42	2.62	2.42	2.62	2.42	2.62	2.42
07/27/2009	10:00 AM	4	2.96	2.79	2.96	2.79	2.96	2.79	2.96
07/27/2009	10:00 AM	5	2.36	2.52	2.36	2.52	2.36	2.52	2.36
07/27/2009	10:00 AM	6	2.52	2.75	2.52	2.75	2.52	2.75	2.52
07/27/2009	10:00 AM	7	2.52	2.75	2.52	2.75	2.52	2.75	2.52
07/27/2009	10:00 AM	8	2.43	2.63	2.43	2.63	2.43	2.63	2.43

## OPM5 Optical Power Meter

### Specifications <sup>a</sup>

OPTICAL	OPM5-2D	OPM5-3D	OPM5-4D
Calibrated Wavelengths	850, 1300, 1310, 1490, 1550 nm	850, 1300, 1310, 1550, 1490, 1625 nm	850, 980, 1300, 1310, 1490, 1550, 1625 nm
Detector Type	Germanium (Ge)	InGaAs	Filtered InGaAs
Measurement Range	+6 to -60 dBm	+10 to -75 dBm	+26 to -50 dBm
Tone Detect Range	+6 to -50 dBm +6 to -45 dBm for 850 nm	+10 to -50 dBm +10 to -45 dBm for 850 nm	+6 to -30 dBm +6 to -25 dBm for 850 nm
Wavelength ID Range	+6 to -50 dBm +6 to -45 dBm for 850 nm	+10 to -50 dBm +10 to -45 dBm for 850 nm	+6 to -30 dBm +6 to -25 dBm for 850 nm
Accuracy <sup>b</sup>	±0.25 dB		
Resolution	0.01 dB		
Measurement Units	dB, dBm, µW		
<b>GENERAL</b>			
Power	2 x AA batteries, accepts standard mini-USB charger		
Adapter Caps	2.5 mm Universal Included for FC, ST, SC Connector specific adapters available		
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:**

- a. All specifications valid at 25 °C unless otherwise specified.
- b. Accuracy measured at 25 °C and -10 dBm per N.I.S.T. standards.

### Accessories

DESCRIPTION	AFL NO.
FC adapter	8800-00-0200
SC adapter	8800-00-0209
ST <sup>®</sup> adapter	8800-00-0202
LC adapter	8800-00-0225

\* See [www.AFLglobal.com](http://www.AFLglobal.com) for full list of adapter caps

### Ordering Information

INCLUDES	AFL NO.
OPM5 optical power meter, 2 x AA batteries, protective rubber boot, USB cable, Windows <sup>®</sup> compatible software, 2.5 mm Universal Adapter cap and carry case.	All OPM5 models

### Calibration Plans

AFL recommends annual calibrations on AFL 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 AFL 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.
OPM5-2D	CAL2-00-OPM5-2	CAL2-01-OPM5-2
OPM5-3D	CAL2-00-OPM5-3	CAL2-01-OPM5-3
OPM5-4D	CAL2-00-OPM5-4	CAL2-01-OPM5-4