Passive Component/Connector Test Solution (PCT)

VIAVI Solutions' Passive Component/Connector Test solution (PCT) offers a high-speed, small footprint, modular system for testing optical connectivity products, characterizing insertion loss (IL), return loss (RL), length, and polarity across various fiber types with best-in-class measurement precision.

Optical connectivity is critical to central office, data center, and military applications, driven by the demand for increased bandwidth and reliable connector variants. It helps optimize cost reduction and production speed, enabling manufacturers to prioritize high-quality optical performance, increase production throughput, and consistently fulfill orders.

The VIAVI MAP-300 automation environment allows easy scaling of solutions with intuitive, easy to use SCPI commands.

Key Benefits

- Scalable modular platform
- Small footprint
- Integrated automation
- Database interface and report generation
- MPO and MTP capable
- Growth enabling

Applications

- IL, RL and length testing optical connectors and cable assemblies, structured-cabling solutions, and optical splitters
- Single-mode and multimode applications
- Multifiber assemblies automated testing
- Verifying continuity and polarity of large multifiber assemblies
- Measuring RL of line cards and receptacle-based transponders

Trusted by Industry Leaders

VIAVI Solutions' MAP mainframe has become a trusted choice in the optical manufacturing testing market. With a growing number of industry leaders relying on our IL/RL measurement system, customers can be confident in the reliability and performance of our solutions.

Fast and Accurate; World Class Metrology with Innovative Workflow

Pre-screen the device under test, increasing throughput by up to 400 percent of test time using the FastIL feature. Troubleshoot furcation point failures quickly and easily with the Single Ended Insertion Loss tool. For unique fiber types, the Index of Refraction can be set to preserve the precise length accuracy.

Small and Modular; Pay as you Grow

Add switches and power meters at any time. The modular MAP mainframe makes VIAVI the most compact solution on the market. The modular nature of the MAP also allows expansion of test capabilities and channel count as your requirements grow. VIAVI has been building metrology grade optical switches for more than 30 years. To further simplify workflow, several standard third-party accessories can be used including a standard mouse, keyboard, label printers and ASCII text entry based barcode readers.

Built on 30 Years of Integrated VIAVI Optical Design

World leader in optical switches for T&M applications (not just re-purposed components). The legacy of the VIAVI PCT system extends back to the popular JDSU RX meter. With years of experience in loss and return loss measurement, plus VIAVI-designed optical switches, we can offer fast, small, and accurate test solutions.

Scripting with Enterprise-wide Data Management Options

The VIAVI PCT system includes an onboarding scripting and centralized database function, the PCT Control Center (PCT-CC). Enabling enterprise-wide automation in production environments, PCT-CC allows users to write automation procedures (scripts) for the PCT and acts as the primary interface between all PCT software (PCTMax, PCTLite, PCTrm). It leverages an SQL database which allows multiple PCT stations to write data to the same central database.

Simple Reliable Remote Automation for Ease of Integration

Every function that can be performed on the easy-to-use Graphical User Interface (GUI) can be easily replicated using standard SCPI commands. The PCT application can be integrated with external automation environments, such as LabVIEW or Python. Its full set of standard commands can be used through a Local Area Network (LAN) or ethernet connection.

Supported Globally with Local Calibration and Services

VIAVI products come with standard three-year warranty and VIAVI PCT is supported by a unique calibration service to provide the ultimate customer convenience and flexibility. Customers can make use of any of three options for calibrating their PCT modules, as well as any supporting modules.

1. FlexCal calibration service, a VIAVI-designed, automated test system is delivered to the customer's site, and the customer is provided remote training to setup and use this innovative system.

2. Return to Factory service is a comprehensive service option that includes, functional testing, recalibration, implementation of necessary engineering changes, software upgrade, calibration sticker/cert and calibration report.

3. VIAVI offers an onsite calibration service, for customers that are unable to return their product to VIAVI for service and where full service is key. With this option, a skilled VIAVI technician comes directly to the customer site.