When creating splitters, the cores of multiple fibers are melted together and twisted until the correct splitting ratio is achieved. Many solutions for these products do not offer real-time updates of the optical power fast enough to efficiently manufacture these components or enough channels to monitor all legs of the splitter simultaneously. Likewise, optical switch companies who seek to improve their switching speed or characterize the isolation of paths when changing channels might require many channels of high-speed optical power monitoring.

### Monitoring Fast Power Fluctuations

During the assembly of optical components it is sometimes necessary to monitor the performance to tune the component to comply with specifications. The faster this process can be monitored, the faster the component can be assembled and qualified. With the high-speed optical power data capturing capabilities of the OP740, these processes can be streamlined and manufacturing time reduced.

OptoTest's OP740 boasts sampling rates of up to 125,000 samples per second and is available with up to 24 channels per unit. High-speed results are visible on the full color touchscreen display in user-configurable sets of up to 24 channels. This will allow the user to view power readings for multiple channels at the same time without using software, simplifying test procedures where data doesn't need to be recorded but optical power needs to be monitored.
OP740 High-Speed Multichannel Optical Power Meter

Software allows users to run more advanced tests, such as high-speed data logging and open-ended dropout testing with user-configurable pass/fail thresholding. Additional OP740s can be loaded in to support higher channel count applications. In order to support the increased sampling rates, the OP740 also features a USB 3.1 port for faster data transmission in addition to the USB 2.0 port for legacy applications and backwards compatibility with OP710s.

The OP740 retains many of the existing specifications of the current OP710, such as its accuracy, wide dynamic range, and broad spectrum of accepted wavelengths. The configuration of ports is also customizable, with options for channel count, detector type, and adapter interface, among others.

Key Benefits

- Up to 24 individual detectors in a 2U rack mountable mainframe
- Able to read from all 24 channels simultaneously
- Variable sample rate (up to 125,000 samples/second, 8µs sampling rate)
- Full color touchscreen display
- Single channel and user-configurable multichannel display
- Color-coded Pass/Fail results
- USB 3.1 communication
- Universal adapter interface
- Measurement range
  - InGaAs: +6dBm to -72dBm
  - Silicon: +3dBm to -65dBm
- Broad wavelength spectrum
  - InGaAs: 830nm to 1700nm
  - Silicon: 400nm to 1100nm
- Relative accuracy of 0.02dB

Specifications

<table>
<thead>
<tr>
<th>1mm InGaAs</th>
<th>3mm Silicon</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sampling Speed</td>
<td>variable, max 125,000 samples/second</td>
</tr>
<tr>
<td>Measurement Range</td>
<td>+6dBm to -72dBm at 1490nm</td>
</tr>
<tr>
<td>Wavelength Spectrum</td>
<td>830nm to 1700nm</td>
</tr>
<tr>
<td>Relative Accuracy</td>
<td>±0.02dB</td>
</tr>
<tr>
<td>Channel Count</td>
<td>Up to 24 in one enclosure</td>
</tr>
</tbody>
</table>

Other detector options available. For more details, see the OptoTest General Specifications.

Contact us

To learn more about the OP740 High Speed Multichannel OPM and schedule a free demonstration, contact our Sales Team. Let OptoTest help you with the right test solution: sales@optotest.com | 1.805.987.1700