



## OM5 Fiber Testing

This article describes how to test OM5 (lime green multimode fiber). It is also known as WBMMF (Wide Band MultiMode Fiber).

OM5 is capable of sending traffic at 4 wavelengths or 'lanes': 850nm, 880nm, 910nm and 940nm. For example, it can send 10 Gb/s in each lane, providing a total bandwidth of 40 Gb/s.

OM5 supports SWDM (Short Wavelength Division Multiplexing) to allow for a reduction in the total number of necessary fibers needed (from 8 to 2) to support 40 Gb/s or 100 Gb/s speeds.

OM5 is designed for use with VCSELs (Vertical Cavity Surface Emitted Lasers). These fibers are immediately recognizable by their bright lime green color.

The good news for fiber installers and contractors is that according to the TIA 492AAAE standard, testing for OM5 is only specified at 850nm and 1300nm, just like normal multimode cabling. This is sufficient to ensure the other used wavelengths are OK.

The following table summarizes the performance requirements and allowed loss for each OM type. The standard specifies an OM5 loss budget of 2.3dB/km at 953nm, but this is not required to be tested.

	<b>850nm</b>	<b>1300nm</b>
<b>OM1</b>	3.5 dB/km	1.5 dB/km
<b>OM2</b>	3.5 dB/km	1.5 dB/km
<b>OM3</b>	3.0 dB/km	1.5 dB/km
<b>OM4</b>	3.0 dB/km	1.5 dB/km
<b>OM5</b>	3.0 dB/km	1.5 dB/km

In summary, use the TestPro multimode fiber adapter and test OM5 the same way you would test any other multimode fiber cable.