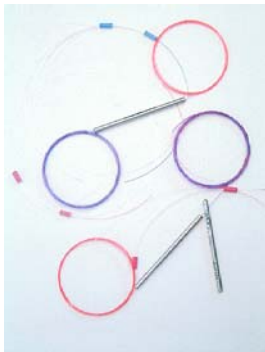


Fiber Coupler / WDM Spectral Test System

The SMR4000 is a fiber spectral loss system that allows you to perform accurate, repeatable and fast measurements of your fiber couplers, WDM's and speciality fibers. It is ideally suited to your high volume test requirements within manufacturing environments. However, various options and accessories are available that configure the system for your most demanding R&D applications.



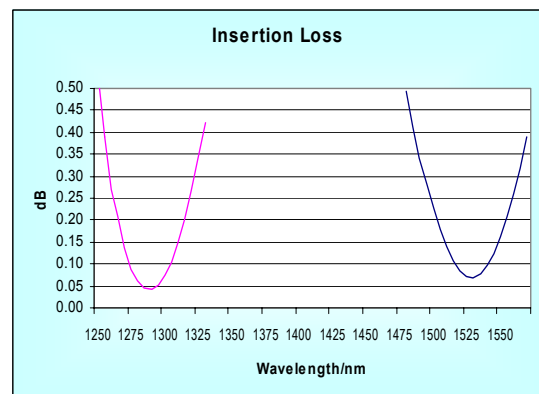
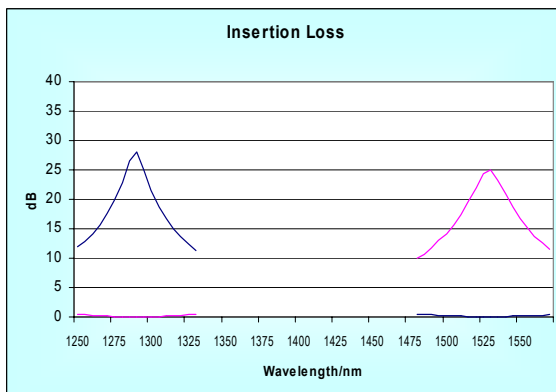
- Insertion loss
- Excess loss
- Coupling ratio
- Isolation
- Attenuation
- Cut-off wavelength



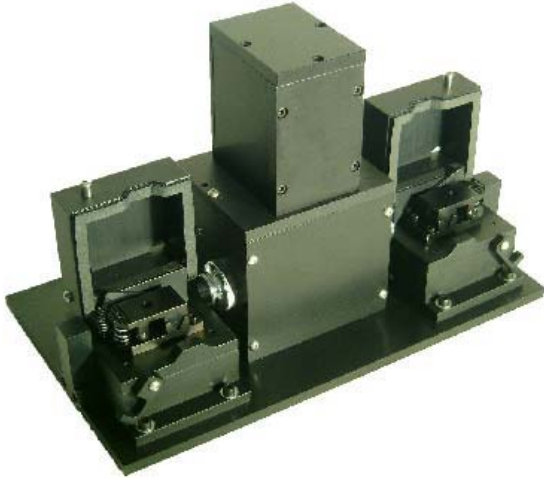
Since the early days of fiber optic research Bentham has been supplying systems for measuring fibre spectral loss. This experience will soon become apparent when you start to use the SMR4000:

- easy-to-use bare fiber clamps
- no need for X and Y axis positioning of fiber
- highly magnified image of fibre end for easy inspection of fiber cleave and contamination
- excellent reproducibility
- simultaneous measurement of both branches of devices
- Windows software guides operator through measurement sequence for 1x2, 2x2, 1x3 to 1x8 type devices

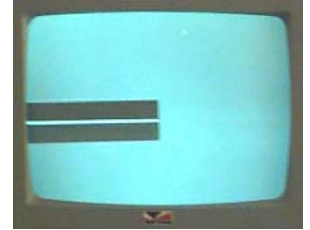
Typical 1300/1550 WDM measurement



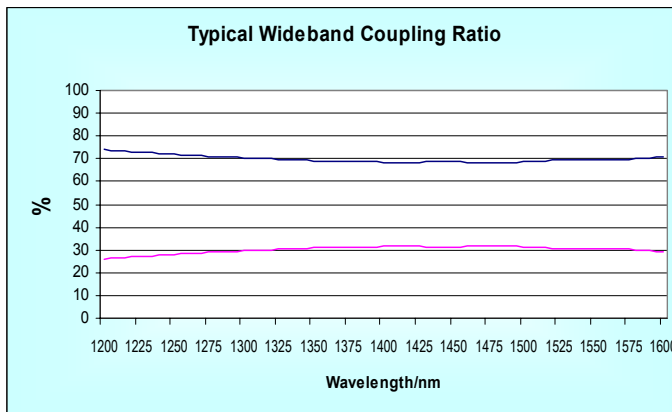
SMR4000 Fiber coupler / WDM spectral test system



The FD485 is a dual bare fiber detector unit with built-in camera-based microscope. It incorporates easy-to-use, spring-loaded clamps which fix the bare fiber securely and reproducibly. The microscope provides a x250 real image of the fiber end on a monitor screen. This is ideal for identifying poor cleaves and any contamination on the fiber.



Simply ensuring that the fiber end is approximately in the middle of the screen ensures correct Z-axis positioning of the fiber. No X or Y axis positioning is required. A shutter, which is automatically opened when the detector cover is closed, prevents hysteresis effects caused by exposure of the detector to the room lights during fibre insertion.



Alternative fiber launch



Specification

Wavelength range:	900 to 1700nm (option 350 to 1700nm)
Measurement reproducibility:	0.02 dB
Attenuation measurement:	to 40 dB with 5nm bandwidth
Minimum bandwidth (max resolution):	1nm
Wavelength accuracy:	better than +/-0.3 nm
Wavelength repeatability:	+/-0.08 nm
Measurement speed:	Typically 2λ's per second
Typical measurement time:	For wideband coupler, 980/1550 WDM, etc is 2.5 minutes. This includes time for 4 fibre strip and cleave operations, i.e. including cut-back on coupler
Fiber handling:	Spring-loaded fiber clamps
Fiber alignment:	No XY positioning required; Z position datum
Fiber viewing:	Monitor provides x250 magnified image of fiber end for easy Z positioning, cleave and contamination inspection
Windows software	guides through sequence of operations. Outputs insertion loss, excess loss, coupling ratio, isolation and ASCII files.