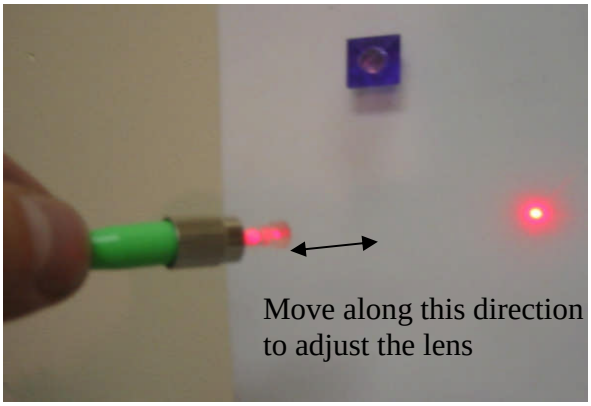
Miniature optical fiber collimator: Model 011

Testing report



Model 011 collimator consists of precise optical lens assembly and can be attached directly to FC-, SC- or ST- type optical connector as shown in the photo. Please notice that FC connectorized fiber pigtail is not included.

It collimates or focuses beams from different multi- or single-mode fiber patch-cords, or couples collimated beams into SM, MM or PM optical fibers. Model 011 contains aspheric lens, controllable along Z-axis only, providing collimation of focusing adjustment. Collimator is a compact device, having ~7x12 mm size.
Collimated beam diameter: 0.6- 1.5 mm (for small core size glass fibers).

- small size: ~5x10 mm
- adjustable focusing/collimation
- can work with FC-, SC- or ST- connectorized fiber
- broadband (VIS-IR), can operate with SM, MM, PM fiber
- epoxy-free light pass for high power operation

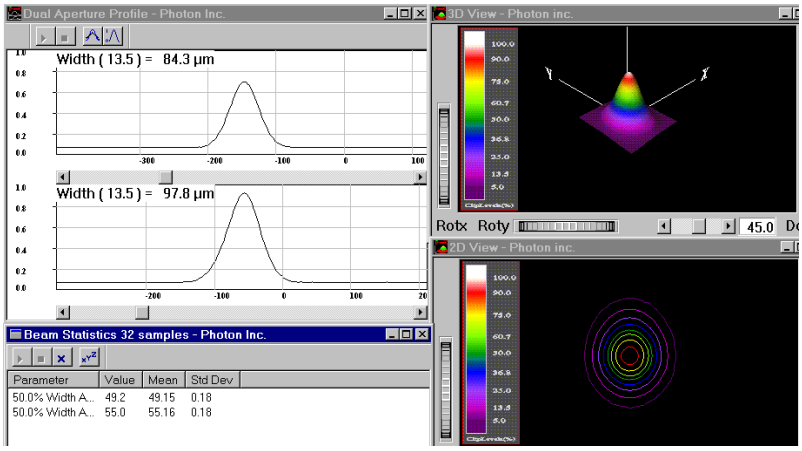
It is recommended to use optical beam profiler when adjusting collimator position in focusing mode. To achieve optical collimation mode, fully insert connector into collimator body.
Use IPA and Q-tips to clean optical lens of the collimator.

Testing Report

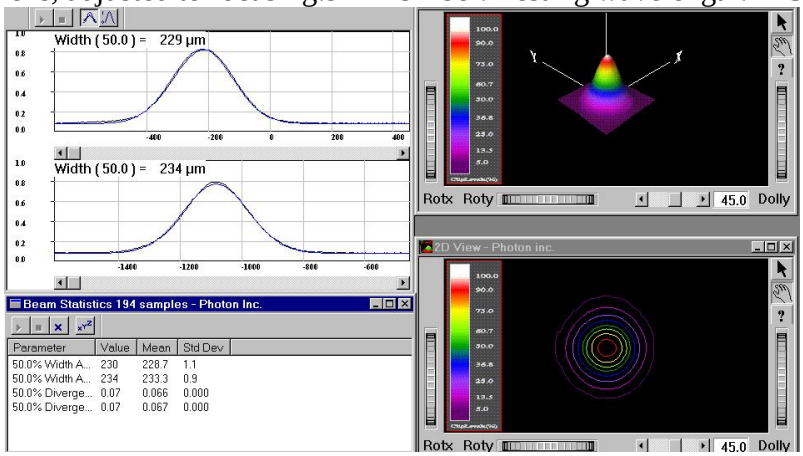
Part Number:	Model 011		
Unit Number:	WTO-0285	WTO-0286	WTO-0435
Package type	4	4	4
Tested with Optical fiber patch-cord	FC/APC-FC/APCsmf-28; 2 m long, FC/APC-FC/APC Hi980; 1.5 m long,		
Test power, mW	~10		
Max power, mW	~500		
Test wavelength, nm	~1560nm, 975 nm		
Snap-on collimator position is set to:	focusing		
Test working distance, mm	40		
Beam diameter FWHM*, um	~52	~51	~55
Beam diameter FWHM, um**	~39	~39	~40
Return optical loss, dB	-43	-43	-42
Test temperature	21C		

- *Measured at central wavelength of ~1560 nm with smf-28 fiber patch-cord
- **Measured at central wavelength of ~980 nm with Spectran Hi980 fiber patch-cord

OPTICAL BEAM PROFILES



Typical optical Field profile for focused beam, measured at distance ~ 40 mm from the lens, adjusted to focusing.smf-28 fiber. Testing wavelength: ~1560 nm



* Field profile for collimated beam, measured at distance ~ 200 mm from the collimator lens. smf-28 fiber. Testing wavelength: 1560 nm

Devices have been tested using following equipment:

Optical microscope:	Nikon
Light sources:	LD-5BB; LD-04BB; LD-3BB (WT&T)
Temperature:	(WT&T)
Back-reflection meter:	ODB6 (WT&T)
Optical field distribution:	BeamScan/BeamPro (PHOTON Inc)
Power meter:	ML910B (Anritsu Inc)
T&M/Quality control:	Operator 6