Making Light Work Lighter
General Photonics

LASER COMPONENTS®

ACTIVE TIMING/ DELAY MODULES

Fiber Stretcher (FST-001)

The FST-001-B is a piezo-driven fiber stretcher with a long optical delay range of up to 3 mm. The device comes complete with a piezo driver packaged in a user-friendly small enclosure. Only +12 VDC is required to power the unit. One attractive feature is that the device is controlled by up to four independent PZTs, so that the user has the option to drive each PZT individually, for high resolution, or collectively, for large stroke. In addition, each PZT can be controlled either with an analog signal or a 12-bit TTL signal. During analog control, the driving circuit simply acts as a 4-channel voltage amplifier with 30V/V amplification. Alternatively, the output voltage can be controlled by a computer equipped with a digital I/O card, or by a microprocessor. The FST-001-B enables applications from sensing to medical imaging, interferometry, and spectrum analysis. At General Photonics, we stretch the fiber hard to make your work more relaxed.

Specifications[1]:

Optical Path Delay Range	> 3 mm (in air)
Phase Change Sensitivity	810 π/V at 1550nm, (analog input, using 4 channels)
Internal Voltage Amplification	30 V/V
Max. Voltage On PZT	140 volts
Resonance Frequency	2.2 ± 0.3 kHz
Insertion Loss	< 0.2 dB
Insertion Loss Variation	< 0.1 dB
Return Loss	> 65 dB
PDL	< 0.05 dB
Fiber Type	SMF-28 standard, others available by request
Wavelength Range[2]	1260 to 1620 nm
Maximum Optical Power	1000 mW min.
Analog Input	4 channels, 4.7 volts max. for each channel
Digital Input	20-pin digital connector to accept 12 bit TTL control signal.
Software	None
Operation Temperature	0 to 50 °C
Storage Temperature	-40 to 80 °C
Dimensions	170 (L) × 106 (W) × 38.6 (H) mm

Note:
1. Specifications in table are for standard configuration with SMF-28 fiber, without connectors, tested at 1550nm.

Features:

- Large Delay Range
- High Speed
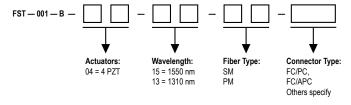- Low Insertion Loss
- Analog and Digital Control
- User Friendly

Applications:

- Sensors
- Interferometers
- Medical Imaging
- Spectrum Analysis
- OCT

Tech Info:

- Optical Coherence Tomography Technologies

Ordering Information:

FST — 001 — B — ☐☐ — ☐☐ — ☐☐ — ☐

Actuators:
04 = 4 PZT

Wavelength:
15 = 1550 nm
13 = 1310 nm

Fiber Type:
SM
PM

Connector Type:
FC/PC,
FC/APC
Others specify