



# OZ OPTICS LTD.

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## RECEPTACLE AND HYBRID STYLE VARIABLE ATTENUATORS

### FEATURES:

- Compact, rugged housing
- High resolution
- Wide wavelength range
- Wide variety of connectors available
- Polarization insensitive
- Multimode, singlemode and polarization maintaining fiber versions
- **LOW COST!**

### APPLICATIONS:

- CATV, LAN, and Telecommunications use
- Receiver padding
- Test and measurement
- Optical power equalization

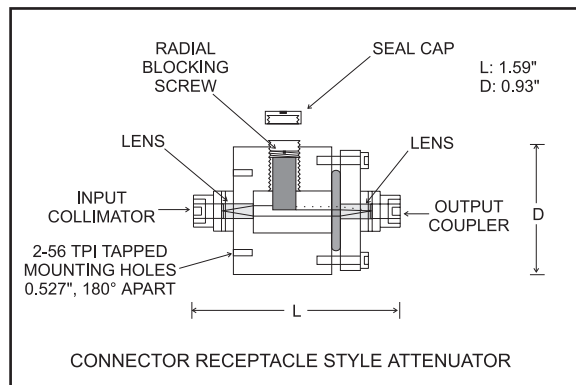
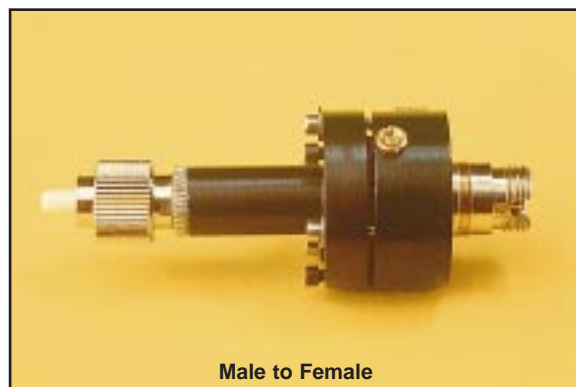
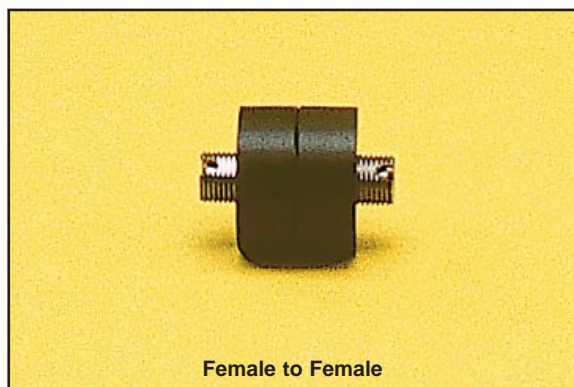
### PRODUCT DESCRIPTION:

Variable and hybrid attenuators consist of two baseplates with lenses. The two baseplates are aligned for optimum coupling efficiency using a patented alignment technique. A threaded radial screw is used to block the collimated beam between the two lenses. Rotating the screw changes its position within the collimated beam, thus varying the power level coupled into the receiver fiber. Because the attenuator works by directly blocking the beam, it is polarization insensitive.

Hybrid style male-to-female attenuators are used in applications where the attenuator size and fiber lengths are an issue. A new version of the receptacle and hybrid style attenuators now exist, offering 35dB backreflection for single mode applications at 1300nm and 1550nm.

### SPECIFICATIONS:

- Insertion Loss:** 4dB for singlemode attenuators, 2dB for multimode attenuators
- Backreflection:** 15dB for receptacle style attenuators (BB-200 style), 35dB for 1300/1550nm singlemode hybrid style attenuators (BB-100 and BB-300 style)
- Attenuation Range:** 2 to 80 dB with 0.01dB resolution up to 10dB, 0.1dB resolution up to 30 dB
- Available Wavelengths:** 400-1625nm
- Polarization Sensitivity:** Less than 0.01dB change over all input polarization states



**Figure 1**

## ORDERING INFORMATION:

### Receptacle style attenuator:

Receptacle Code: 3 = NTT-FC/PC, Super, and Ultra NTT-FC/PC  
8 = AT&T-ST  
5 = SMA 905  
SC = SC

BB-200-XY-W-F

Fiber type: M = Multimode  
S = Singlemode  
P = Polarization maintaining

Wavelength: Specify in nanometers  
(Example: 633 for 633nm)

### Low backreflection receptacle style attenuator:

BB-300-XY-1300/1550-S-35<sup>†</sup>

### Hybrid style male to female attenuator:

BB-100-1X-W-a/b-F-15-Y<sup>††</sup>

Wavelength: Specify in nanometers  
(Example: 633 for 633nm)

Fiber core/cladding sizes, in microns  
9/125 for 1300/1550 singlemode fiber  
See tables 1 to 5 for other standard fiber sizes

Fiber type: M = Multimode  
S = Singlemode  
P = Polarization maintaining

Connector Code: 3 = NTT-FC/PC  
3S = Super NTT-FC/PC  
3U = Ultra NTT-FC/PC  
3A = Angled NTT-FC/PC  
8 = AT&T-ST  
5 = SMA 905  
SC = SC  
SCA = Angled SC

### Low backreflection hybrid style male to female attenuator:

BB-300-1X-1300/1550-9/125-S-35-Y<sup>††</sup>

<sup>†</sup> Low backreflection attenuators are only available for Super NTT-FC/PC, SC and AT&T-ST connectors.

<sup>††</sup> Angled NTT-FC/PC and angled SC female receptacles are unavailable for hybrid attenuators. Only angled NTT-FC/PC and angled SC male connectors are available.