# Description

Corning Cable Systems now offers Variable Optical Attenuators (VOAs). These attenuators are designed to meet Telcordia's specifications for temperature and humidity stability and are prealigned for optimum coupling efficiency.

Corning Cable Systems' variable optical attenuators come preassembled as cable assemblies. Each assembly comes equipped with your choice of most standard connector types. Different connectors can be terminated onto fiber ends to meet specific customer requirements.

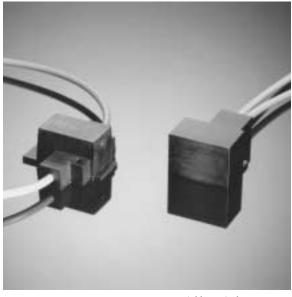
Attenuator power levels can be adjusted by rotating the threaded radial screw. Rotating the screw changes the gradient filter's position within the beam and varies the power level coupled into the receiver fiber. Corning Cable Systems variable optical attenuators exhibit low back-reflection and are used in various applications — receiver padding, system testing/installation, optical power equalization, and lab/field use.

# Features / Benefits

- Threaded radial screw enables easy adjustment of power levels
- Accommodates most standard connector types in a variety of cable lengths
- Different connectors can be specified per fiber end
- Low back-reflection
- Single-mode or multimode
- Two mounting screws included

#### Cable

Color-coded for easy identification, optical cord is available in single-mode or multimode (50 or  $62.5 \mu m$ ) fiber types in simplex 2.9 mm configurations. A wide variety of other specialty cords, including passive devices, are also available.



Variable Optical Attenuators (Multimode on left and Single-mode on right) | Photo CCA11

# **Connector Choices**

## ST® Compatible

- Precise zirconia ceramic ferrule
- Easy-to-use, positive bayonet mounting system

#### **Enhanced ST Compatible**

- Unique "isolated ferrule" design
- Single-mode ST compatible
- Increased resistance to adverse environments
- Zirconia ceramic ferrule with Ultra PC polish
- Angled PC polish available

# SC

- Ideal for high-density applications
- High-precision ceramic ferrule
- Angled PC polish available

#### FC

- All-zirconia ceramic ferrule
- High-performance threaded mounting system

#### D4

- All-zirconia ceramic ferrule
- High-performance threaded mounting system



# Variable Optical Attenuators

# Corning Cable Systems

**Specifications** 

> 30 dB	
0.8 to 1.6 μm	
< 2.5 dB	
Better than 0.2 dB	
< -50 dB (< -55 dB available upon request)	
8 turns of trimpot screw	
-40° to +75°C	
0.03 dB/°C	
< 0.5 dB change for 10 days at 40°C at 90% RH	
2.9 mm, aramid yarn reinforced	
4 m (standard)	
1 m	
	0.8 to 1.6 μm  < 2.5 dB  Better than 0.2 dB  < -50 dB (< -55 dB available upon request)  8 turns of trimpot screw  -40° to +75°C  0.03 dB/°C  < 0.5 dB change for 10 days at 40°C at 90% RH  2.9 mm, aramid yarn reinforced  4 m (standard)

# **Ordering Information**



Use the following options to construct the part number:

# Select connector for C1 (equipment side) leg.

#### Single-mode

21 = FC Angled PC

62 = D4 Ultra PC

65 = SC Angled PC

54 = FC Ultra PC

58 = SC Ultra PC

61 = ST® Compatible Ultra PC

81 = ST Compatible Enhanced

00 = No connectors (pigtail)

## Multimode

36 = D4 PC

17 = FC PC

39 = SC PC, ceramic

50 = ST Compatible PC, ceramic

# Leg Lengths

#### Single-mode

C1 leg = Specified in Option 4 C2 leg = Balance of assembly Tolerance =

-0/+0.3 m per leg

# Multimode

C1 leg = Specified in Option 4 C2 leg = Balance of assembly Tolerance =

-0/+0.34 m on the C1 leg -0/+0.25 m on the C2 leg

#### **Part Number Example**

#### 58611RMV4724010

Single-mode VOA, 2.9 mm cable, C1 leg length equals 2.4 mm and C2 leg length equals 7.6 mm with single-mode SC UPC connector installed on the C1 leg and single-mode ST compatible UPC connector installed on the C2 leg.

# 2 Select connector for C2 leg.

#### Single-mode

21 = FC Angled PC

62 = D4 Ultra PC

65 = SC Angled PC

54 = FC Ultra PC

58 = SC Ultra PC

61 = ST Compatible Ultra PC

81 = ST Compatible Enhanced

00 = No connectors (pigtail)

#### Multimode

36 = D4 PC

17 = FC PC

39 = SC PC, ceramic

50 = ST Compatible PC, ceramic

00 = No connectors (pigtail)

#### 3 Select fiber type.

1RMV47 = Single-fiber single-mode

1CMV40 = Single-fiber 50 µm multimode

1KMV42 = Single-fiber 62.5 μm multimode

#### Select leg length for C1 (equipment side) leg. (C2 leg equals balance of assembly.)

XX = Choose appropriate number to match the desired meter length (even number increments only).

For example, choose "14" if the desired length is 1.4 m, "36" for 3.6 m, etc.

# 5 Select total length of assembly in meters (m). (Must be greater than C1 leg length specified in Option 4.)

Example: 005 = 5 meters

Note: If your requirements are different from the options listed above, please contact your Corning Cable Systems Customer Service at 1-800-743-2671.

