

Plug-Type (Male/Female) Attenuators

CAA series – Singlemode

Description:

The plug-type singlemode attenuators are used directly on the ends of fiber optic jumpers prior to installation in adapters. These attenuators provide a fixed precise level of attenuation and feature excellent return loss. Low wavelength dependency determines them for using in WDM and DWDM transmission systems. The CAA series attenuators are available with UPC or APC polish for SC, FC, DIN and LC connector types and UPC for ST and MU connectors.



Features:

- Connector/adaptor plug type
- Precise attenuation
- Wide attenuation range, 1 dB step
- Return loss:
 - > UPC 50 dB
 - > APC 60 dB
- Low ripple broadband design for operation at wavelength 1250 to 1650 nm
- High power endurance

Application:

- Fiber optic systems
- Receiver padding for optical receiver protection
- Optical power equalization
- Linearity and dynamic range testing in laboratory equipment

Specifications:

Parameter		
Attenuation range	SC, FC, ST, MU: 1 – 20 dB, step 1 dB DIN: 5, 10, 15, 20 dB	
Operational wavelength	1250 to 1650 nm	
Stability ¹	Standard	Premium
attenuation range 1 - 4 dB	±0.5 dB	±0.5 dB
attenuation range 5 - 9 dB	±0.8 dB	±0.5 dB
attenuation range ≥10 dB	±10%	±0.5 dB
Return loss	Standard	Premium
UPC polishing	≥ 50 dB	≥ 55 dB
APC polishing	≥ 60 dB	≥ 65 dB
Side load test (EN 61300-2-24)	≤ 0.2 dB/1 N (OPTOKON adapter)	
Power durability	250 mW	
Operating temperature	-40 to 80 °C	
Storage temperature	-40 to 80 °C	

Note: 1) -40 to +80°C over 10 cycles

Ordering Code:

CAA - XX - X XX - (P) → Premium class (optional)

Attenuation
01 - 20 dB

Connector/Adaptor Type	
UPC	FC/UPC
NPC	FC/APC, 2.05 standard
NPC215	FC/APC, 2.15 standard (on demand)
USL	ST/UPC
USC	SC/UPC
NSC	SC/APC
ULC²	LC/UPC
NLC-K³	LC/APC
UDIN	DIN/UPC
UMU	MU/UPC

Note: 2) LC type only blue (LC/UPC) available
3) LC-K type only green (LC/APC) available

Dimensions:

Type	Length	Width	Note
FC	28.5 mm	10.0 mm	
SC	32.0 mm	7.5 mm	
ST	35.5 mm	10.0 mm	
DIN	56.0 mm	6.5 mm	
LC-(S)⁴	28.5 mm	6.25 mm	Single latch
LC-K	25.0 mm	6.9 mm	Double latch
MU	30.0 mm	6.1x8.5 mm	

Note: 4) CAA-XX-ULC compatible with all types of LC adapters according to the: ADP_02-01_EN-LC_adapters
CAA-XX-ULC-S suitable for both, adapters and transceivers (SFF, SFP, XFP, SFP+, ...) – available on request

Samples of Attenuators:

