



Ridgmount Technologies have designed a range of Fibre Optic 'Variable Optical Attenuator Switches' for singlemode applications.

Attenuation is increased by blocking the collimated beam of light between two precision ferrules. The ferrules are pre-aligned to ensure optimum coupling efficiency when minimum attenuation is required. The blocking pin is rotated or pressed to adjust the attenuation. These devices feature excellent precision over a wide attenuation range and remain stable over temperature changes.

The VOAs can be optimised for single wavelength or dual window applications and can be housed in a variety of enclosures or PCB mounts. VOAs can be configured to act as on/off devices and pressure sensors, please contact Ridgmount Technologies for more information.

Parameter	Performance	Specifications
Pigtail Connectors Options	SC / FC / ST / LC UPC / APC	IEC 61754 Interface Standards
Pigtail Cable Options	3mm Yellow LSZH or 0.9mm Buffered Fibre	Corning SMF28e 9/125 Fibre (alternative available on request).
Assembly Length	1m	Connector to Connector
Optical Performance		
Insertion Loss (Min Typical)	≤0.8dB	IEC 61300-3-4 (1310nm±40nm & 1550nm1310nm±40nm) ≤0.6dB for single wavelength or please specify.
Repeatability / Precision	±0.02dB	
Return Loss (Back Reflection)	UPC > 50dB APC > 60dB	IEC 61300-3-6 Device only > 50dB
Attenuation Range	Up to 60dB	IEC Standards
Wavelength Dependence	<0.3dB (1300nm – 1550nm)	Measured at min attenuation at 23 C
PDL	≤0.15dB	
Power Handling	≤500mW	
Mechanical Performance		
Vibration Test	<0.2dB	IEC 61300-2-1 (10Hz to 55Hz)
Mating Durability	±0.2dB	IEC 61300-2-2 (500x) Connector dependant.
Tensile Test	±0.2dB	IEC 61300-2-4 (10N)
Drop Test	±0.2dB	IEC 61300-2-12 (3 drops at 1.5m)
Environmental Performance		
Humidity Test	±0.2dB	10% to 90% Humidity
Storage Temperature	-40°C to +85°C	
Operational Temperature	0°C to +70°C [-40°C to +85°C*]	IEC 61300-2-22 *variable attenuation.
Material		
Attenuator Alignment Housing	Arcap AP1D	
Attenuator Shell / Body	Nickel Plated Brass	Other options available.
Optical Ferrules	Glass Capillary	Precision Collimators.
Fire Rating	UL 94 – Vo	All materials RoHS Compliant.
Packaging	Individual Vacuum Pack	
Labeling	Unique Serial Number on body	

Technical Data Sheet

Part No. 650 Series

DRAWN: CRP

ISSUE: C

CHECKED: ML

DATE: 01/02/08

Description: Fibre Optic Variable Optical Attenuator Switch

Dimensions in millimetres unless otherwise stated.
Do not scale.

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optimising optical fibre performance