

VOA MULTIPLEXERS

Intelligent Channel Power Equalizer (VMUX)

Multiplexer with an independently controlled MEMS attenuator on every input, for flattening channel power in one device.



Key Features

- Independent attenuation on every channel
- Attenuation and multiplexing integrated in a single module
- MEMS actuation, proven for durability and reliability
- Removes a discrete VOA and two splices per channel
- Suitable for closed-loop power equalization

Applications

- ROADM and amplifier line cards
- Pre-amplifier channel power equalization
- DWDM systems requiring per-channel power control
- Optical transport nodes with dynamic channel loading

Overview

A VMUX puts a variable optical attenuator on each input channel ahead of the multiplexer. Every wavelength can be trimmed independently, so a spectrum arriving with uneven channel powers leaves flattened, without a separate VOA and two splices per channel.

Attenuation is set by MEMS elements, the same mechanism used in our standalone MEMS attenuators, chosen for durability under repeated actuation over a deployed lifetime.

Flattening at the multiplexer is what keeps a downstream amplifier operating in its linear region and stops strong channels from stealing gain from weak ones.

Specifications

Function

PARAMETER	VALUE
Attenuation Element	MEMS, one per channel
Control	Independent per-channel attenuation

NOTES

1. Channel count, wavelength plan and connector type are configured to order. Contact sales for the specification sheet matching your channel plan.

Order or request a quote

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lightwitphotonics.com

Monday–Friday, 8:00 AM – 6:00 PM Pacific

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Specifications are subject to change without notice and do not constitute a warranty. Confirm all parameters with Lightwit Photonics sales before ordering.