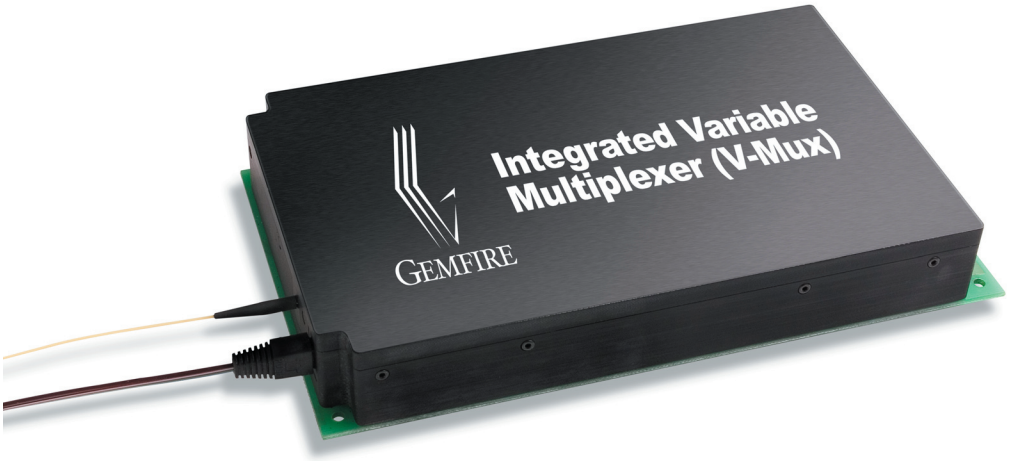


INTEGRATED VARIABLE MULTIPLEXER (V-MUX)

PhotonIC

The Gemfire V-Mux offers best-in-class performance by uniting our unique VOA (variable optical attenuator) array with well-established silica AWG (arrayed waveguide grating) technology. The result is a device that offers convenient digital control with low power consumption, a fast response time, and outstanding optical performance. It comes in various configurations of 8-40 channels and is offered in both a Gaussian and a wide-band version. The attenuation range is 10 or 20dB. Some typical applications for the Gemfire V-Mux include:

- Pre-emphasis at Transmitters
- Dynamic Channel Balancing at MUX Location
- Dynamic Channel Leveling at Add/Drop Sites
- Receiver Overload Control
- Optical Channel Blocking

Low Power Consumption

Wide Attenuation Range

Compact Footprint

Very Low PDL At All Attenuation Levels

8-40 Channels

Gaussian And Wide-Band Options

Integrated AWG Temperature Control

GEMFIRE
Bringing new ideas to light™

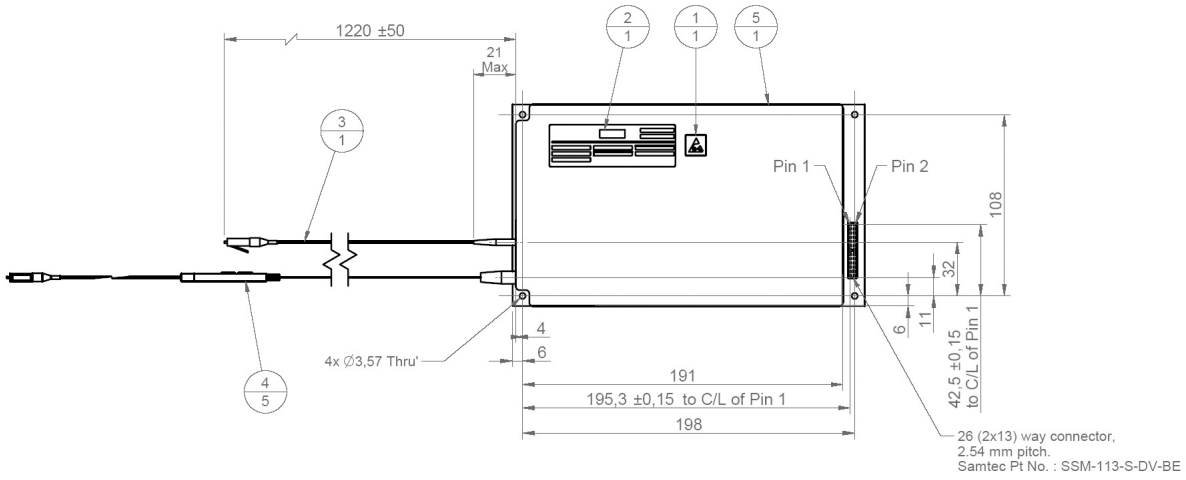
40-Channel Wide-Band Specifications

Channel Count	40
Channel Spacing	100GHz
Wavelength Range[1]	1529-1604nm
Clear Window	200pm
Insertion Loss (across clear window)	7dB
Insertion Loss Uniformity	1.2dB
-1dB Passband	0.4nm
Polarization dependent loss (across clear window)[2]	0.5dB
Attenuation range[3]	10dB
Chromatic Dispersion	20ps/nm
Adjacent Channel Crosstalk	-25dB
Non-Adjacent Channel Crosstalk	-35dB
Maximum Integrated Crosstalk	-22dB
Optical Return Loss	-40dB
Dimensions (L x W x H)[4]	210 x 120 x 30mm

All parameters are worst-case across clear window, temperature and polarization

1. Four variants offered for C- and L-Band
2. At 0dB of attenuation. Maximum PDL @ 10dB: 0.8dB across clear window
3. 20dB upon request; Gaussian option also available
4. Standard 40-channel package. More-compact packages also availabe.

40-Channel Standard Package



Available in 8-40 channel configurations with multiple connector types and custom packaging.

Gemfire Corporation
1220 Page Avenue
Fremont, California 94538
510-438-7500 or 1-866-4GEMFIRE
www.gemfire.com

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