

40 Channel Integrated PLC Reconfigurable Optical Add/Drop Multiplexer



Key Features



- Complete ADD and DROP functionality
- Less than 9 dB express path insertion loss for the ROADM node
- Fully integrated optical channel monitoring (OCM) for fault detection
- Automatic per-channel optical power control (DCE)
- 16 node cascadability for 10G
- East-west separable design
- Broadcast and select compatible architecture
- DPRAM or I2C communication interface

Applications

- Metro core and regional DWDM
- CATV/MSO
- Enterprise

JDSU's Agile Optical Switch family provides the broadest portfolio of ROADM solutions designed to match the requirements of major market segments. They are the building blocks of Agile Optical Networks and provide the flexibility to remotely reconfigure any or all wavelengths, thereby reducing time-to-service, simplifying the network and streamlining planning and management. This results in significant Opex and Capex reductions and faster time to revenue. In addition, they enable the cost effective creation and deployment of more complex network architectures.

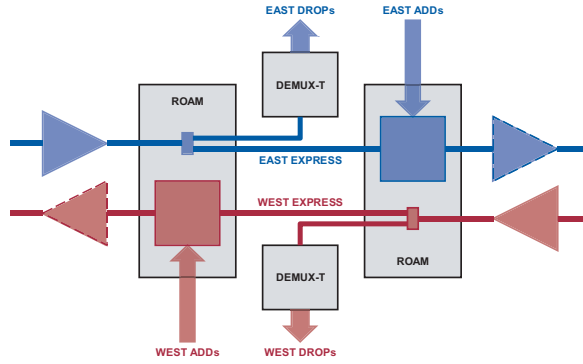
The JDSU 40 channel Integrated PLC Reconfigurable Optical Add/Drop Multiplexer (PLC ROADM) is designed for system developers building dense wavelength division multiplexing (DWDM) networks for telecommunications, CATV/MSO, and enterprise applications.

The 40 channel JDSU PLC ROADM has ultra-low insertion loss and wide passband and provides complete passive functionality, integrating fast reconfiguration/protection switches, per channel tap-monitors and variable optical attenuators (VOAs), and full MUX/DEMUX. In addition, all necessary control electronics are integrated internally, and the modules are provided with a high-level command interface. With this level of integration, the JDSU PLC ROADM provides full optical-channel monitoring (OCM) on every port, fault detection, automatic dynamic channel equalization (DCE), and supports SONET/SDH protection switching.

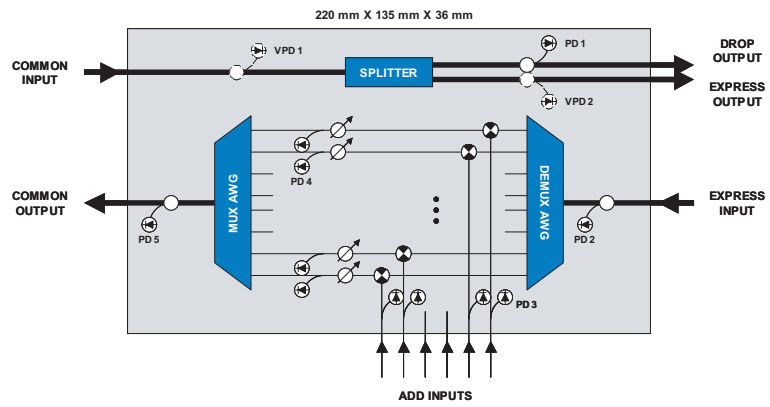
The JDSU PLC ROADM integrates a level of DWDM system management comparable to that found in SONET/SDH systems, eliminating the need for add-on monitoring and performance management technologies. Because it enables remote reconfiguration, it provides more flexibility than fixed OADM's. The JDSU IPLC ROADM greatly reduces day-one installation costs, operating complexity, and seamlessly enables future expansion.

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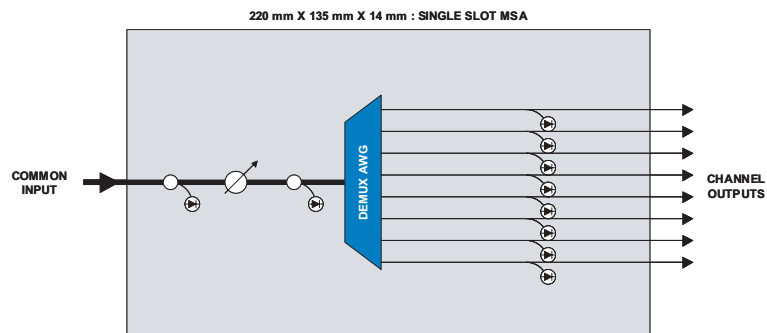
East-West Separable Node Architecture



Reconfigurable Optical Add Module



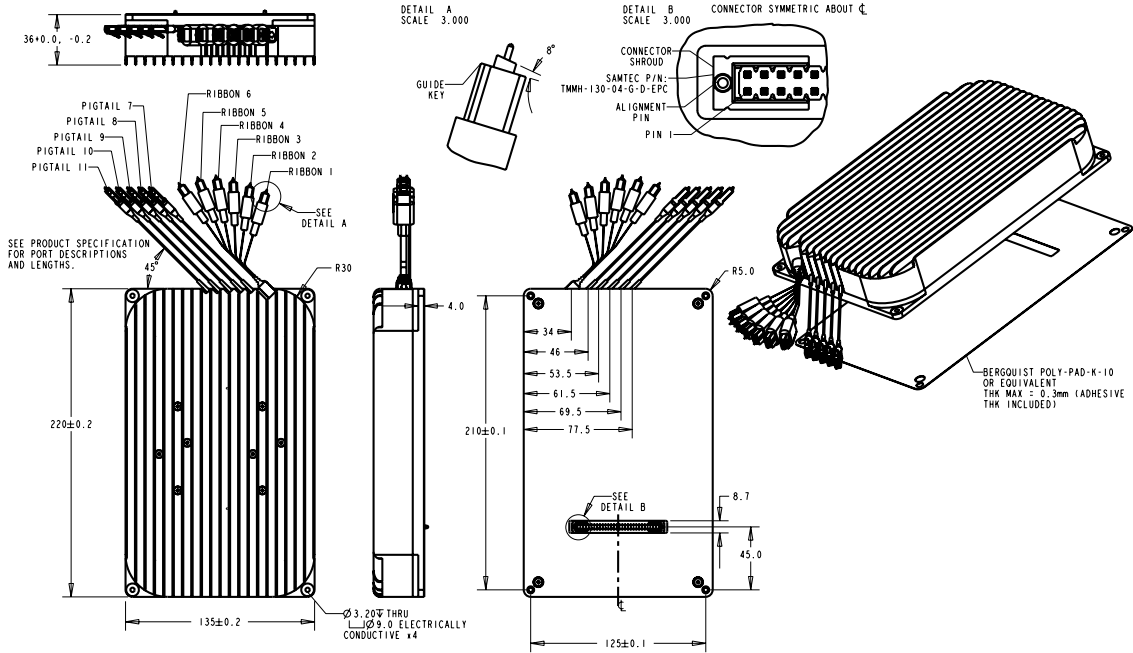
Monitored Demultiplexer Module



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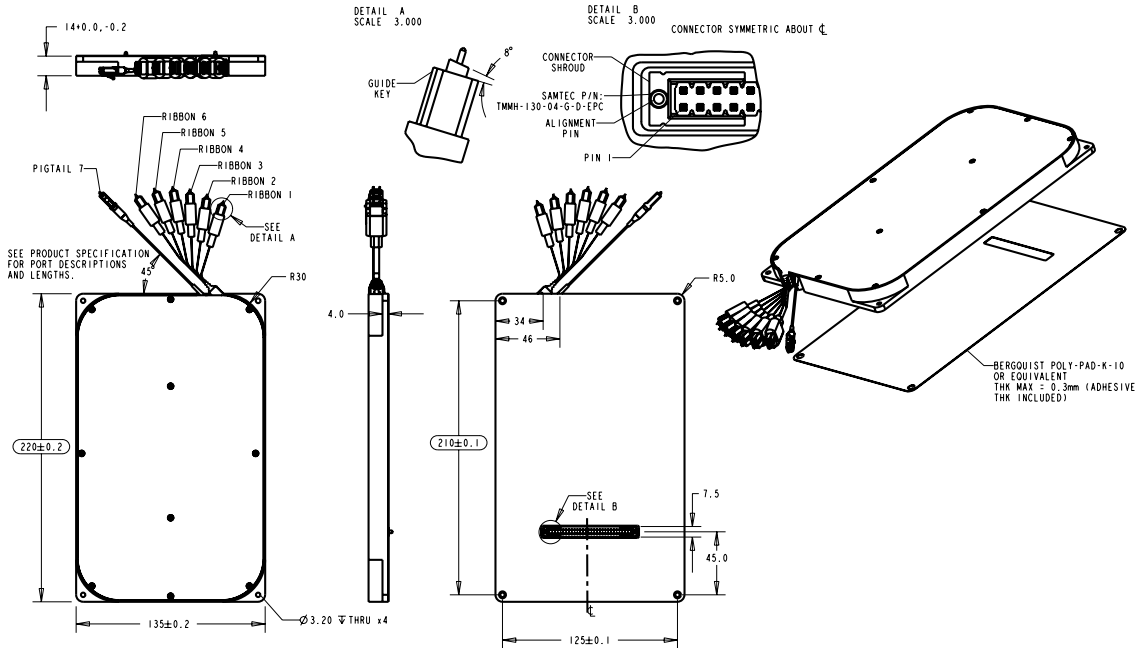
IPLC Reconfigurable Optical Add Module (ROAM) Dimensions Diagram

(Specifications in mm unless otherwise noted. Contact JDSU for mechanical dimensions for the ROAM module with DPRAM interface.)



IPLC Monitored DEMUX (DEMUX-T) Module Dimensions Diagram

(Specifications in mm unless otherwise noted. Contact JDSU for mechanical dimensions of the DEMUX-T module with DPRAM communications interface.)



Optical Specifications

Parameter	ROAM Module	DEMUX-T Module
Insertion loss	7.5 dB EXP, 5.7 dB ADD	5.8 dB
Bandwidth at 1 dB ripple	37.5 GHz EXP, 50 GHz ADD	25 GHz
Adjacent channel crosstalk	23 dB ADD	25 dB
Non-adjacent cross crosstalk	30 dB EXP	34 dB
PDL	0.5 dB at 10 dB attenuation	0.5 dB
Chromatic dispersion	± 25 ps/nm EXP, ± 20 ps/nm ADD	± 20 ps/nm
PMD	1.0 ps EXP, 0.5 ps ADD	0.5 ps
VOA dynamic range	25 dB	25 dB

Note: The above values are EOL, over operating temperature range, polarizations and ITU passband of 13.75 GHz

In order to meet specific customer requirements, JDSU offers customization for the following ROADM parameters:

- Channel wavelength plan
- Number of channels
- Filter bandwidth
- Splitter ratio on drop path
- Fiber pigtail lengths

Ordering Information

For more information on this or other products and their availability, please contact your local JDSU account manager or JDSU directly at 1-800-498-JDSU (5378) in North America and +800-5378-JDSU worldwide or via e-mail at customer.service@jdsu.com.

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