

A.)

InP/InGaAsP Vertically Coupled X-Crossing Optical Add-Drop Multiplexer

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B.)

A vertically coupled InP/InGaAsP crossed waveguide optical add-drop multiplexer has been realized through the use of wafer bonding. This novel device requires only a single epitaxial growth and illustrates the use of multiple vertical layer optical interconnects for the three-dimensional routing of optical signals.

C.)

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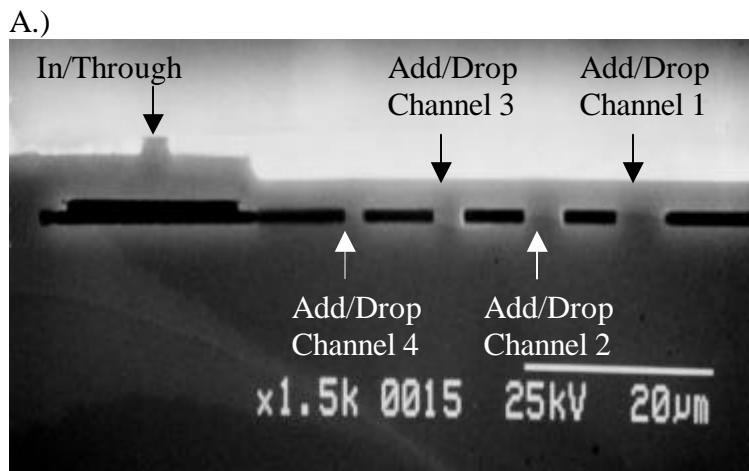


Fig. 1. SEM of cleaved output facet, including in/through waveguide and four add/drop waveguides.

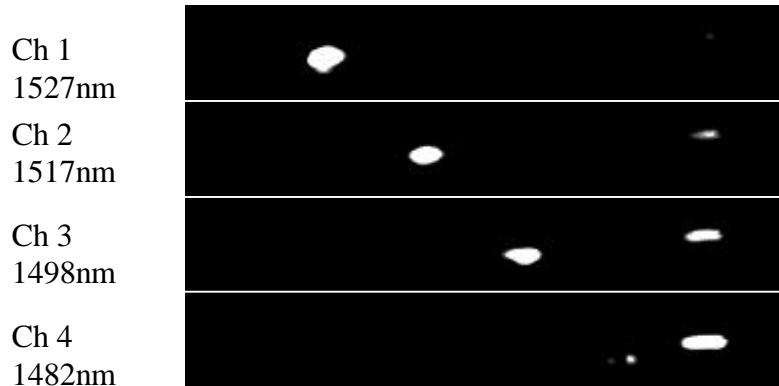


Fig. 2. Output of OADM as captured with IR camera and 80x microscope objective lens.

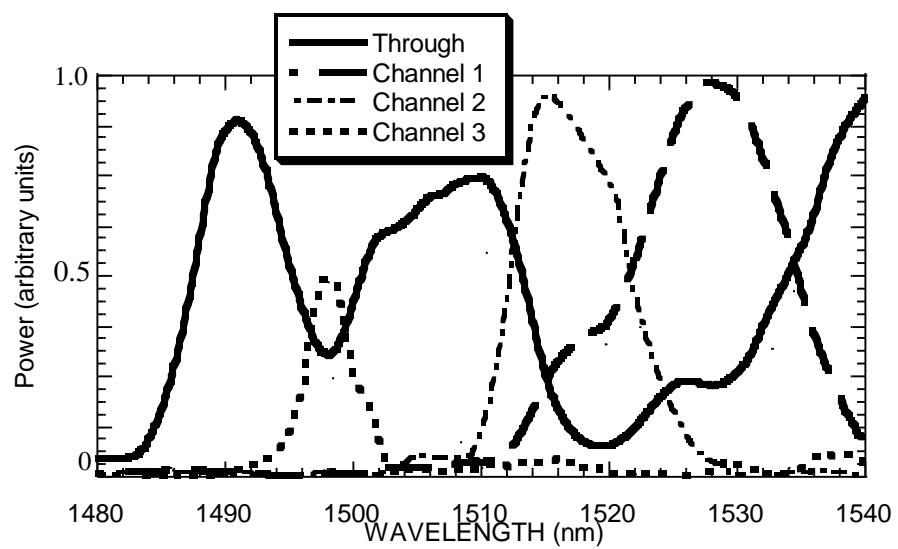


Fig. 3. Smoothed wavelength scan of OADM.