

What is new in WDM sources?

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This presentation will describe some of the latest developments in the area of optical sources for WDM systems, including tunable lasers and multiwavelength sources. We will consider both DWDM and CWDM.

We will start by looking at the source requirements, such as wavelength switching time, for various applications. After that we will give an overview of the latest developments in source options and technologies.

The source options under discussion will include external cavity lasers, wavelength selectable laser arrays, tunable VCSELs, monolithic tunable lasers, and non-semiconductor alternatives. Numerous examples will be shown, and the characteristics and performance of the various devices will be discussed. The key performance parameters, such as tuning range, power and switching time will be related to the expected areas of application.

These areas include sparing, fixed wavelength transmitter replacement, and use in wavelength switched networks. We will pay particular attention to packaging and modules, and discuss the emergence of pluggable lasers.

Finally we will consider the prospects for uncooled operation.