

INTEGRATED POLARISATION SPLITTER

Description:

One of the main problems in the field of integrated optics is the dependence on polarization. Various materials or optical structures have been proposed to implement both. However, all of them present serious problems at the time of their manufacture and, the differences between the dispersion constants are low and difficult to control, therefore, these devices offer solutions with a low efficiency, which requires large propagation distances and require large devices. The present invention consists of an integrated polarization splitter, so that through a polarization splitter based on a multimode interference coupler (SWG) it is capable of separating an orthogonal signal polarized into two (ET and MT, Transverse and Electric Magnetics.). It is easy to manufacture, and can be integrated with other types of photonic chip device combinations.

Keywords:

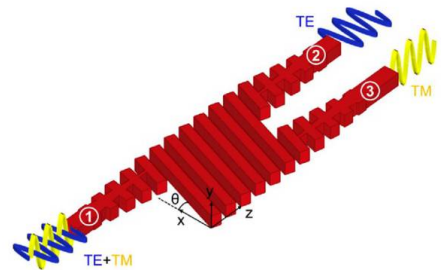
[Couplers](#), [Optics](#), [Polarizing](#), [Photonics](#), [Mmi](#)

Sectors:

[ICT](#), [Electronics](#), [Engineering](#), [Others](#)

Areas:

[Telecommunications](#), [Hardware / Devices / Components](#), [Electronics](#),
[Industrial](#), [Communications](#), [Technological Improvements](#)



Advantages:

The device is compact, with low loss and higher bandwidth, and is fabricable in a single litho pass. It is also capable of working reciprocally to combine two polarized orthogonal signals into just one.

Uses and Applications:

Device belonging to the field of optics and photonics. There are several uses for a polarized integrated splitter, some of its applications are in photonic chips and in optical communications.

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