

# Interferometric Polarization Control

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## DESCRIPTION

This technology is a signal conditioning module. It is comprised of two cascaded variable delay polarization modulators each with an input port and an output port. An arm with an ellipsoidal mirror directs an input radiation signal from input port towards opposing rooftop mirror. A second arm with a second ellipsoidal mirror guides a signal from opposing rooftop mirror towards output port to provide an output radiation signal. A grid is placed between the mirrors respectively. A translation apparatus adjusts relative optical path length in relation to the two arms and the grid.

## FEATURES AND BENEFITS

- The basis of the variable-delay polarization modulator can be rotated at an arbitrary angle with respect to the analyzer.
- Broader pass-bands may be accommodated using more complex modulation schemes.
- This architecture enables construction of a modulator that may be made robust, broadband, and easily tunable to different wavelengths to provide frequency diversity.
- It permits complete determination of the polarization state of the incoming radiation by measurement of Stokes Q, U and V.

## APPLICATIONS

- Chemical Industry
- Pharmaceuticals
- Food and Beverage Industry

## FOR MORE INFORMATION

If you are interested in more information or want to pursue transfer of this technology, GSC-15027-1, please contact:

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