Structural Design of Magneto-Optical Circulator

We propose an optical circulator formed of a magneto-optical cavity in a 2D photonic crystal. With spatially engineered magnetic domain structures, the cavity can be designed to support a pair of ...

The width of the metal microstrip is 3 m. Multiple turns of microstrip can be used with two levels of metal to reduce the current requir d, as is done with magnetic recording heads. We characterize the ...

We propose an approach for the design of resonant cavities employed in magnetophotonic crystal (MPC) circulators and isolators.

We present a design of on-chip optical circulator that is ultra-compact, with a footprint on a single-wavelength scale, using rotating non-reciprocal states in a two-dimensional magneto-optical photonic ...

Abstract--In this paper, we propose a development of a T-shaped circulator based on a 2D-photonic crystal, which has a simple and compact structure. This structure makes the non-reciprocal ...

In this work, a three-port optical circulator based on magneto-optical cavity on two-dimensional triangular lattice is designed which has simple cavity structure and it is easy to fabricate. Numerous simulations ...

We theoretically present the model of six-port circulator with a ring of magneto-optical rods symmetrically coupled to the waveguides in a two-dimensional triangle-lattice photonic crystal.

In this paper, we propose theoretically and numerically demonstrate in 2D a broadband, low-loss, and reflectionless magneto-optic circulator operating for the fundamental transverse ...

The practical implementation of a PMC surface and its integration to the suggested circulator, as schematically shown in Figure 4, is beyond the scope of this paper, since our main objective is to ...

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