



Multiple Band Polarization Rotating Phased Array Element

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The Invention

A multiple band phase shifter includes a first dielectric layer, a conductive layer, a second dielectric layer, and for each central operating frequency of a plurality of central operating frequencies, a switch, a plurality of vias, and a conducting pattern layer. Each via is formed of a conductive material that extends through the first dielectric layer, through a third dielectric material formed in and through the conductive layer, and through the second dielectric layer and is connected to a first throw arm or a second throw arm of the switch. The conducting pattern layer includes conductors electrically connected to a distinct via. An electric polarization of a reflected electromagnetic wave is rotated by 90 degrees when the switch is positioned in the first conducting position and the electric polarization of the reflected electromagnetic wave is rotated by -90 degrees when the switch is positioned in the second conducting position.

Additional Information

For More Information About the Inventors

- [John Booske](#)

Tech Fields

- [Information Technology : Hardware](#)
- [Information Technology : Networking & telecommunications](#)

For current licensing status, please contact Michael Carey at mcarey@warf.org or 608-960-9867