

## Switched-band vivaldi antenna

### Abstract:

A novel Vivaldi antenna with added switched band functionality to operate in a wideband or narrowband mode is presented. The antenna reconfiguration is realized by inserting four pairs of switchable ring slots into the ground plane of the structure. A wide bandwidth mode from 1.0-3.2 GHz and three narrowband modes can be selected. A fully functional prototype with PIN diodes switches has been developed. Measured results shows good performance of the proposed designs. The antenna could be a suitable solution for a multimode application requiring wideband and frequency reconfigurable antennas, such as in military applications and cognitive radio.