

# Analysis of Reconfigurable and Deployable Miura-Ori Reflectarrays for Satellite Applications

*Abstract*—A foldable reconfigurable ReflectArray (RA) based on the Miura-Ori origami pattern is presented for CubeSat deep space communications. The array is designed at 8.425 GHz and it can provide a single beam or dual beams. The beamscanning capabilities are a function of the aperture fold ( $\theta_a$ ) and are showcased using a time saving analytical model.