The study designed and implemented quadrifilar helix antenna (QHA) for weather satellite signal reception. The antenna design and optimization were done by varying the element diameter, the radial lengths, the axial lengths, and element materials on adopted model. The simulated QHA has far-field radiation pattern in the upper hemisphere with maximum gain of 4.14dBi at 0° and omnidirectional coverage, half-power beamwidth of 140°, bandwidth of 6.5MHz, and VSWR of 1.13. The implemented QHA has major lobe in conformity with the simulated QHA with maximum gain of 10.75dB at 0°, and half-power beamwidth of 104°.
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