

# Comparative Analysis of Array 2×2 Double Bi Circular Microstrip Antenna with the Empirical Formula

Putu Artawan<sup>1</sup>, Yono Hadi Pramono<sup>1</sup>, Mashuri<sup>1</sup>

<sup>1</sup>Institut Teknologi Sepuluh Nopember (ITS), Surabaya, Indonesia

## Abstract

Comparative Analysis of Array 2x2 Double Bi-Circular Microstrip Antenna was started by doing numeric analysis with empirical formula that supports the counting in relation to the characteristics antenna that is optimally applied in Wi-Fi communication system. The result of analysis that was obtained as Antenna Parameter such as VSWR (0.59), SWR (4.58), Reflection Coefisien (0.28) and Return Loss (-11.06dB). And with the COMSOL programme was result VSWR (0.63), SWR (4.01), Reflection Coefisien (0.23) and Return Loss (-12.77dB). This study was obtained design of Double Bi-Circular Microstrip Antenna with more optimal characteristics parameter in its application in Wi-Fi communication System that will be applied as pointer antenna which is better and taught.