

# **MICROSTRIP YAGI-UDA ANTENNA AT 2.45 GHz FOR ISM BAND APPLICATION**

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## **ABSTRACT**

This paper propose a novel design of microstrip Yagi-Uda antenna at 2.45 GHz for ISM (industrial, scientific and medical) band application. The proposed antenna consists of pair of reflector, a driven element and three directors. The antenna had achieved directivity of 5.95 dBi, gain of 4.496 dB, return loss of -41.5 dB and high efficiency. It has been fabricated on the FR-4 substrate with dielectric constant of 4.4, loss tangent of 0.02 and substrate height 1.6 mm.

Computer simulation technique (CST) MW studio software was used to simulate the design antenna. The parameter of antenna such as directivity, gain, bandwidth and antenna were analysis and also discussed.

**KEYWORDS:** Microstrip Yagi-Uda Antenna, Computer Simulation Technique (CST) MW Studio Software, Radiation Pattern, Smith Chart, Printed Circuit Board (PCB), SMA Connector