

**Circular Shaped Microstrip Patch Antenna
at 14.6 GHz**

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ABSTRACT

In this paper, a circular shaped ground-fed patch antenna is designed, simulated, built and tested. The operating antenna frequency is 14.6 GHz with -15.68 dB input and 8.14 dB gain. Furthermore, the antenna does not only have a circular shaped build but also is supported with a triangle, square and column shapes.

EXISTING SYSTEM

- Due to their low-profile and conformable geometry, they are widely used as embedded antennas in handheld wireless devices and military equipment.
- However, intensive research is required to improve the inherent disadvantages of this antenna, such as: narrow bandwidth, low efficiency, spurious feed radiation, poor polarization purity and limited power capacity.

PROPOSED SYSTEM

- In this paper, a circular shaped ground-fed patch antenna is proposed.
- Circular patch is the second most popular shape and can be easily analyzed and modified to produce a range of impedance values, radiation patterns and frequencies of operation.
- Among the four most popular feed techniques, coax-fed method has low spurious feed radiation and is easy to match.

SYSTEM REQUIREMENTS

HARDWARE REQUIREMENTS:

- Processor - intel core i3
- RAM - 2GB
- Hard Disk - 20 GB

SOFTWARE REQUIREMENTS:

- Ansoft HFSS(High Frequency Structure Stimulator)

REFERENCE

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