Abstract

One of the major challenges in next-generation, highly integrated, wireless system-on-packages (SOP) is to integrate the antenna into the package. The multilayer low temperature cofired ceramic (LTCC) is an attractive technology in this domain as it offers desired integration of antenna as well as miniaturization due to the high dielectric constant of substrate material. Antenna design for wide band applications is also a major challenge. This paper presents design of an aperture coupled microstrip patch antenna on LTCC substrate operating in the 24.125 GHz ISM band. Bandwidth of more than 5 GHz is achieved by adding gap coupled parasitic patch elements on all four sides of the fed patch and by cutting cavity beneath the
patch elements.

References

- Scrantom, Charles Q., and Gregory J. Gravier. "LTCC TECHNOLOGY Where we are and where we are going." - IV(2000).

**Index Terms**

| Computer Science | Wireless Communication |

**Keywords**

- Aperture Coupled
- Embedded Cavity
- Gap Coupled Parasitic Patch Array
- Ltcc