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(57) Abstract :
 In the present world situation, we are focusing on higher data rates. So, we need to shift into advanced communication for better experience. The International Telecommunication Union (ITU) assign higher bands for telecommunication system from 250GHz to 450GHz. In this antenna design, cuboid shaped DRA (Dielectric Resonator Antenna) is designed to achieve it. The substrate dimensions are 0.69mm x 0.69mm x 0.017mm. The DRA dimensions are 0.24mm x 0.24mm x 0.05mm. The feed line dimensions are 0.44mm x 0.07mm. Two substrates are used and separated by air gap height of 0.005mm. The antenna Resonates at 405.48GHz frequency for 6G applications is also proposed and analysis of gain improvement is presented in this paper, with a reflection coefficient of -34.7694 dBi. The simulated results of single element 6G antenna have wider bandwidth of 100.04GHz from 375.36GHz to 475.41GHz at -10dB level, directive radiation pattern at E-plane and H-plane, and higher gain of 6.80 dBi. Keywords: 6G, 6G DRA antenna, high data rate, wider bandwidth, higher gain.

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