

DUAL BAND USING PI SHAPE SLOT LOADED PATCH ANTENNA FOR WI-MAX APPLICATIONS

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ABSTRACT

Microstrip patch antennas are strong candidates for use in many wireless communication applications. This paper proposes the use of patch antenna with pi-shaped slot to achieve dual band operation in WiMAX standard. A thick substrate helps broaden the bandwidths at two resonant frequencies. The slot loaded patch antenna resonates at 2.54 GHz and 3.45 GHz frequencies. It has been developed to be used in future Wi-max technology. The simulated bandwidths are 4.01% and 11% at 2.54 GHz and 3.45 GHz respectively. The return losses for these dual bands are -20dB and -16.77 dB respectively.

KEYWORDS: Wi-Max Antenna, Impedance Bandwidth, CST Microwave Studio, Pi-Slot Patch