

## A Low Profile Dual Polarized Slot Coupled Patch Antenna

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**Abstract :** A low profile, dual polarized, slot coupled patch antenna is designed and developed in this paper. The antenna has a measured bandwidth of 17.2% for return loss  $> 15$  dB and pair ports isolation  $> 23$  dB. The gain of the antenna is over 10 dBi and the half power beam widths (HPBW) of the antenna are  $80^{\circ}$  in the horizontal plane and  $39^{\circ}$  in the vertical plane. The cross polarization discrimination (XPD) is less than 20 dB in HPBW. Within the operating band, the performances of good impedance match, high ports isolation, low cross polarization, and stable radiation patterns are achieved.

**Keywords :** dual polarized, patch antenna, slot coupled, base station antenna

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