

## عنوان مقاله:

Modified U-Slot Stacked Micro-Strip Patch Antenna for Ultra- Wideband Applications in S Band, C Band and X Band

## محل انتشار:

مجله مکانیک کاربردی و محاسباتی، دوره 3، شماره 4 (سال: 1396)

تعداد صفحات اصل مقاله: 9

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## خلاصه مقاله:

The U-slot micro-strip patch antennas were originally developed for bandwidth broadening applications. This study presents a transmission line feed to modify the U-slot stacked rectangular micro-strip patch antenna for Ultra-Wide Band (UWB) communications. The modified antenna has a U-cut loaded with parallel slits and corner slots and is printed on a dielectric substrate of FR4 with relative permittivity ( $\epsilon_r$ ) of 4.4, the thickness of 1.59 mm and the tangent loss of 0.025. The results show that the proposed antenna achieves an impedance bandwidth of 11.55 GHz (2.1 – 13.65 GHz) with the return loss  $< (-10)$  dB. This antenna can be employed for ultra-wideband applications in S Band, C Band and X Band. The proposed patch antenna is designed and simulated by using IE3D 14.0 software. Simulation results are presented in terms of the resonant frequency, the return loss, VSWR, the impedance bandwidth and the impedance matching

## کلمات کلیدی:

UWB antenna; VSWR; IE3D; Return Loss

## لینک ثابت مقاله در پایگاه سیویلیکا:

<https://civilica.com/doc/719837>

