時域反射量測儀的分析與校準

柯易良、吳俊德

E-mail: 9707891@mail.dyu.edu.tw

摘 要

時域反射量測儀(Time-domain Reflectometry, TDR)萃取出待測物(device under test, DUT)的時域參數，利用Gans與快速傅立葉轉換(fast Fourier transform, FFT)，把時域(time-domain)資訊轉成頻域(frequency-domain)參數。 由於時域反射量測儀的校準(calibration)技術尚未成熟，本論文敘述了時域反射量測儀的基本工作原理，以網路分析儀校準技術為基礎應用於TDR上，單埠網路使用SOL校準方法，雙埠網路使用SOLT的方法，藉由程式移除校準程序所產生的系統誤差，求得待測物實際的散射參數，透過實驗結果探討分析轉換方法與校準技術的可行性。

關鍵詞 : 時域反射量測儀 ; 校準

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