

ABSTRACT

SCANNING NONLINEAR JUNCTION DETECTION METHOD AND DEVICE

The present invention discloses a scanning nonlinear junction detection method and device. The method comprises following steps: S1. dividing a detection region into multiple sub-regions, transmitting, by a transmission unit, signals to all the sub-regions one by one; S2. receiving, by a reception unit, signals fed back from the sub-regions, obtaining amplitude of harmonic components measured from all the sub-regions according to the signals fed back; if a harmonic component of a certain sub-region exceeds a preset value, determining that a nonlinear junction is present in the sub-region. The device comprises a transmission unit, a reception unit, a detection signal control unit, a reception data processing unit, and a control and display unit. In the present invention, a detection region is divided into multiple sub-regions, an amplitude threshold of each sub-region is detected, and then a sub-region in which a nonlinear junction is located is determined, so an accurate position and direction in which the nonlinear junction is located are quickly determined, an occurrence of missing scanning is avoided, and speed and efficiency of searching for the nonlinear junction are improved.

Figure 5