

IN-LINE DISTORTION CANCELLATION CIRCUITS FOR LINEARIZATION OF
ELECTRONIC AND OPTICAL SIGNALS WITH PHASE AND FREQUENCY
ADJUSTMENT

ABSTRACT OF THE DISCLOSURE

A distortion circuit is provided for correcting the distortion from a nonlinear circuit element by generating a frequency dependent signal having a sign opposite to the distortion signal produced by the nonlinear circuit and substantially the same magnitude. The distortion circuit includes an input signal and a first nonlinear device coupled to the input signal for generating a first signal and where the first nonlinear device has a first bias level. Also included is a second nonlinear device different from same first nonlinear device and coupled to the first nonlinear device for modifying the first signal to produce an output second signal, the second nonlinear device having a second bias level. A bias control means is provided for adjusting the first and said second bias levels so that the magnitude, phase and frequency of the output second signal can be adjusted.

FIGURE 5