

SYSTEM AND METHOD FOR OFFSET ERROR
COMPENSATION IN COMPARATORS

ABSTRACT OF THE DISCLOSURE

An offset error compensation system is provided that includes a comparator (42) having an offset error (44), a positive receptor (56), a negative receptor (58), a positive output (60), and a negative output (62). A sequence generator (14) generates control signals (22) representing normal cycles and swap cycles. A first cross connect (46) is coupled to the positive receptor (56), the negative receptor (58), a positive input signal (52), and a negative input signal (54). The first cross connect (46) couples the positive input signal (52) to the positive receptor (56) and the negative input signal (54) to the negative receptor (58) in response to a normal cycle. The first cross connect (46) further couples the positive input signal (52) to the negative receptor (58) and the negative input signal (54) to the positive receptor (56) in response to a swap cycle. A second cross connect (48) is coupled to the positive receptor (56), the negative receptor (58), the positive output (60), and the negative output (62). The second cross connect (48) couples the positive receptor (56) to the positive output (60) and the negative receptor (58) to the negative output (62) in response to the normal cycle. The second cross connect (48) further couples the positive receptor (56) to the negative output (62) and the negative receptor (58) to the positive output (60) in response the swap cycle.

Figure 1.