

**Features**

- CMOS Technology
- Drives Segment or Active Matrix Displays
- 16V to 47V Output Drive ( $V_{DD}$  to  $V_{EE}$ )
- Selectable Output Shift Direction and Polarity
- 3 Output Switching Modes
- Cascadable (4 Maximum)

**Applications**

- eBooks / eReaders
- Electronic Shelf Labels / Point Of Purchase Displays
- Mobile Phones / Portable Hand Held Devices
- Smart Cards
- Signage

**Ordering Information**

Part	Description
MXEI2300WB	Gold Bumped Die / Wafer Form
MXEI2300XB	Gold Bumped Die / Waffle Pack



**Description**

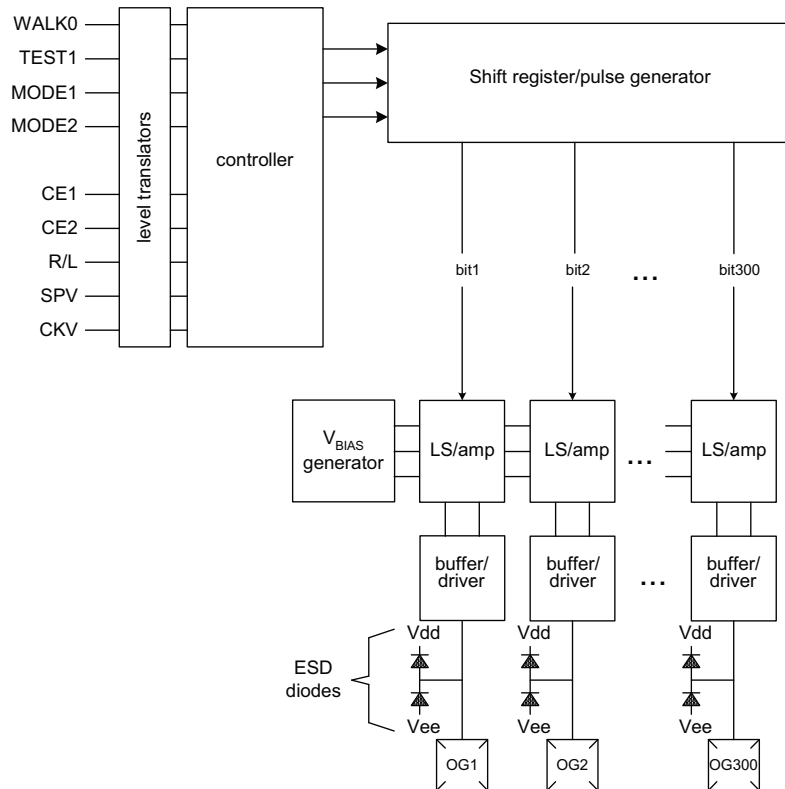
The MXEI2300 is a 300-bit serial shift register, level translator, and high voltage buffered driver. The shift register is seeded by the CE1, CE2, R/L, SPV, and CKV inputs.

The output pulse pattern is selected with the MODE1 and MODE2 inputs. A one-pulse, continuous two-pulse, jumping two-pulse, or no-pulse pattern can be generated. Pulse polarity is selected with the WALK0 input.

The register output bits are amplified rail-rail from  $V_{EE}$  to  $V_{DD}$ , and the output strength of the buffer drivers is modulated by the  $V_{BIAS}$  generator. This allows the OGN outputs to be continuously optimized for peak performance while minimizing transients over a wide operating range.

The MXEI2300 is designed to operate over a temperature range of  $-40^{\circ}\text{C}$  to  $+85^{\circ}\text{C}$ , and is available as Gold Bumped Die in Wafer Form or Waffle Pack.

**Figure 1. Functional Block Diagram**



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