## Integrated Circuits Division

## Features

- CMOS Technology
- Drives Segment or Active Matrix Displays
- 16 V to 57.5 V Output Drive ( $\mathrm{V}_{\mathrm{DD}}$ to $\mathrm{V}_{\mathrm{EE}}$ )
- 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 |
| :--- | :--- |
| MXEI2240WB | Gold Bumped Die / Wafer Form |
| MXEI2240XB | Gold Bumped Die / Waffle Pack |



## Description

The MXEI2240 is a 240 -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 WALKO input.

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

The MXEI2240 is designed to operate over a temperature range of $-40^{\circ} \mathrm{C}$ to $+85^{\circ} \mathrm{C}$, and is available as Gold Bumped Die in Wafer Form or Waffle Pack.

Figure 1. Functional Block Diagram


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