

RPLIS2K-EX

Reduced-Power Line-Scan Image Sensor



◆◆◆ Key Features

- Linear sensor with 2048 pixels, including 12 optical black pixels
- 4 μm X 32 μm pixels on a 4 μm pixel pitch
- 32 μm X 8192 μm imaging area
- Fill factor >99%
- On-chip Auto Dynamic Thresholding with digital output – eliminates external ADC
- Full frame electronic shutter
- On-chip correlated double sampling
- Black pixel clamping removes global pixel offsets
- Dynamic Power Control minimizes power consumption for each operating mode
- 12/24 μV /electron programmable conversion gain
- 1.7V full scale range
- 65 dB dynamic range
- Single 3.0 V supply voltage
- Only a clock and a start pulse needed for operation
- Programmable setup register for device mode selection
- Visit www.dynamax-imaging.com for full details



(16-pin LCC)

◆◆◆ Brief Description

The RPLIS-2K-EX image sensor is an ideal sensor for a broad range of applications requiring wide dynamic range and a large aspect ratio pixel, such as bar code reading, position measurement, laser triangulation, etc. The design incorporates many on-chip features that lower the overall system cost compared to multi-chip systems using CCD's.

The RPLIS-2K-EX sensor includes full-frame snapshot shutter operation, with adjustable exposure time and programmable gain to handle varying light conditions.

The video port has line driving capability further reducing system costs. The output is user selectable as analog video output, or Dynamax Imaging's exclusive on-chip Auto Dynamic Thresholding with digital 1 bit comparator output. This circuit pre-processes the video signal by dynamically adjusting the threshold to compensate for lighting and optical variations.

On-chip analog pre-processing prior to comparator output often eliminates the need for an expensive external Analog-to-Digital converter. An easy to use programmable register is provided to allow for easy setup and operation.

◆◆◆ Applications

- Barcode
- Positioning
- Triangulation
- Scanning
- Touch Screen
- Spectroscopy

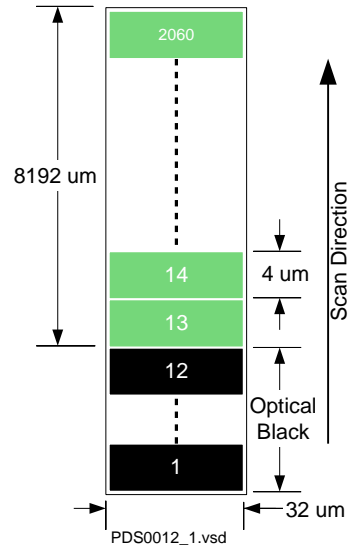


Figure 1: Pixel Array Configuration & Orientation

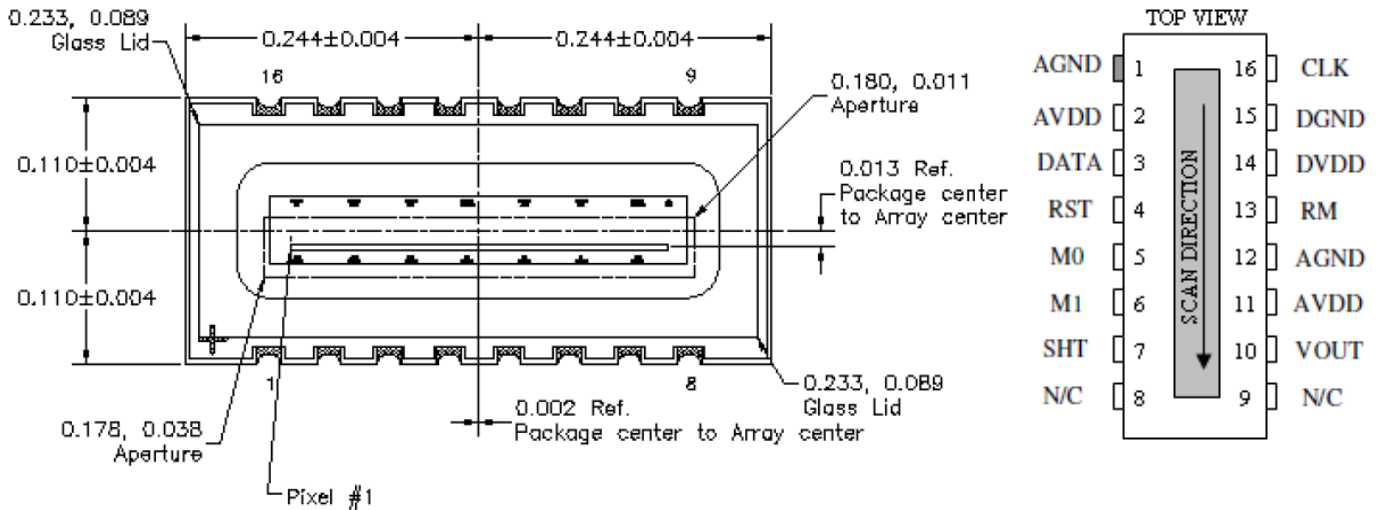


Figure 2: 16-pin LCC Package (P/N RPLIS-2028-EXB-LG)

Sales: sales@dynamax-imaging.com
 Technical Support: techsupport@dynamax-imaging.com
 Customer Support: customersupport@dynamax-imaging.com

DYNAMAX IMAGING, LLC

www.dynamax-imaging.com