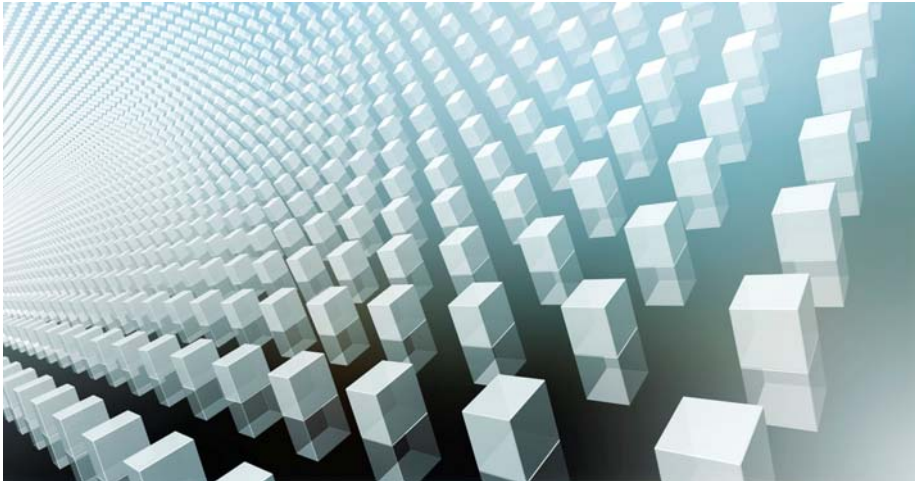


CCD Linear Image Sensor

CCD (Charge Coupled Device)

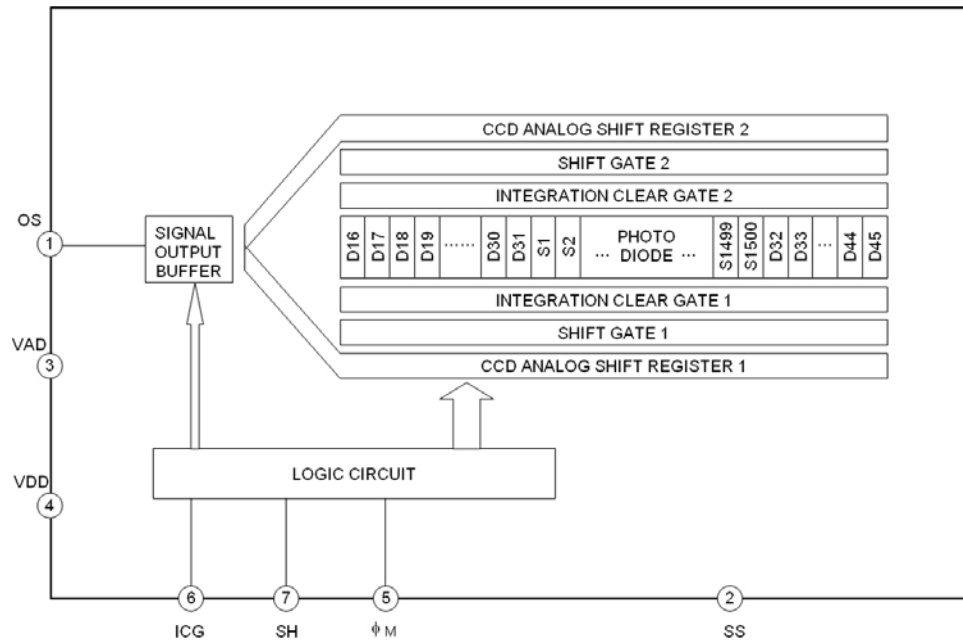
TCD1103GFG**1500-elements, embedded electronic shutter function, for barcode scanner.**

The TCD1103GFG is a high sensitive and low dark current 1500-elements linear image sensor. This device consists of sensitivity CCD chip. The TCD1103GFG has electronic shutter function (ICG). Electronic shutter function can keep always output voltage constant that vary with intensity of lights.

■ Features

- ▶ Number of Image Sensing Elements: 1500
- ▶ Image Sensing Element Size: 5.5 μ m \times 64 μ m
- ▶ Photo Sensing Region: High sensitive and low dark current pn photodiode
- ▶ Internal Circuit: CCD Drive Circuit
- ▶ Power Supply: Only 3.0V Drive (Min.)
- ▶ Function: Electronic Shutter, Sample and Hold Circuit
- ▶ Package: 16 pin GLCC

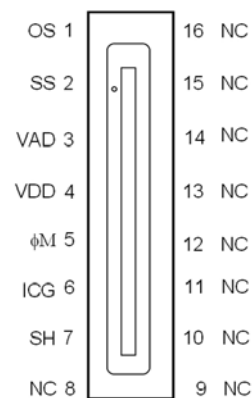
Circuit Diagram



Pin Names

| Pin No. | Symbol | Name |
|---------|---------------|------------------------|
| 1 | OS | Output signal |
| 2 | SS | Ground |
| 3 | VAD | Power (Analog) |
| 4 | VDD | Power (Digital) |
| 5 | $\emptyset M$ | Master clock |
| 6 | ICG | Integration clear gate |
| 7 | SH | Shift gate |
| 8 to 16 | NC | Non connection |

Pin Connections (top view)



» For further information about Toshiba Sensors, please visit <http://www.semicon.toshiba.co.jp/eng/product/sensor/index.html>

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