

## CAE301 “ELFIS”

The “ELFIS” image sensor combines a unique set of desired image sensor features, the result of a “beyond state of the art” design legacy and LFoundry’s LF11IS technology with BSI.

### Features

- 1920x1080 pixels
- 15  $\mu\text{m}$  pixel pitch
- Global shutter using a “GS” CMOS technology with buried storage node
- TID, SEU and SEL rad-hard design
- QE > 90% by backside illumination
- Read noise using CDS 2.5  $e^-_{\text{RMS}}$
- $Q_{\text{FW}}$  in HDR mode 250000  $e^-$
- “True” High Dynamic Range method based on the patented “3-level TG” method, reaching a single exposure, single integration time, synchronous dynamic range > 100dB

### Application

Space missions earth observation

Space missions sky observation

Scientific high speed imaging

Imaging in nuclear environment

### The evaluation kit includes

- Ceramic packaged ELFIS sensor, thick HIRES epi BSI flavor
- PCB board with socket and CMOUNT lens holder
- ADC and frame grabber on PCB
- GiGe interface
- Demonstration program running on PC via GiGe interface

