

Product Document

EGA2000

Industrial High Power Flood Illuminator

1 General Description

The EGA2000 product is a family of integrated high-power flood illuminators composed of a VCSEL die and a micro-lens array (MLA) embedded in a package assembled with **ams** state-of-the-art component manufacturing processes. The MLA enables an optimized field of illumination for different options of field of view of cameras depending on the applications: narrow, wide and ultra-wide.

2 Key Features

The product allows improved efficiency, reduced footprint, and overall improved system performance.

Figure 1:
Added Value of Using EGA2000

Benefits	Features
Six product configurations	At 850 nm and 940 nm with 3 options of field of illumination Fitting with indoor and outdoor applications as well as targeted imaging sensors quantum efficiency
Small package size	4.1 mm x 4.1 mm x 1.38 mm ±0.100 mm
Power efficient	4 W optical power in pulsed and quasi-continuous wave High power conversion efficiency
Easy component mounting	Standard lead-free solder reflow compatible
Uniform power distribution	100% tested for uniformity in the far field
Full traceability	Unit level track with 2D barcode

3 Applications

The product family targets industrial mass market applications. Here below an example of applications (but not limited to) with focus on 2D NIR imaging cameras and 3D time-of-flight systems:

- Factory Automation: e.g. Machine Vision, Volume Measurement
- Home automation: e.g. Smart Cleaning Robot, Smart Robotic Chef, Smart Speaker
- Smart City: e.g. Smart Banking, Contactless Access Control, Delivery Robot
- Entertainment: e.g. Night Vision for War game, Object Avoidance, Avatar

4 Block Diagram

Figure 2:
Illustration of EGA2000's Key Components

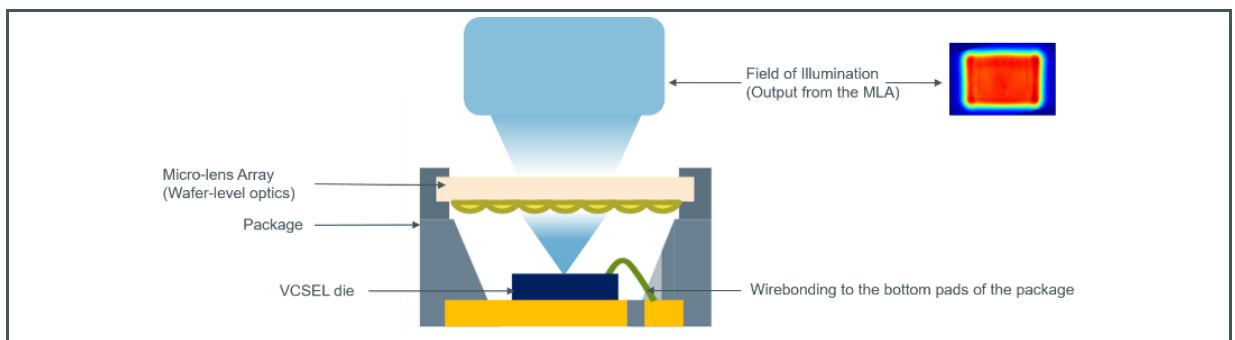
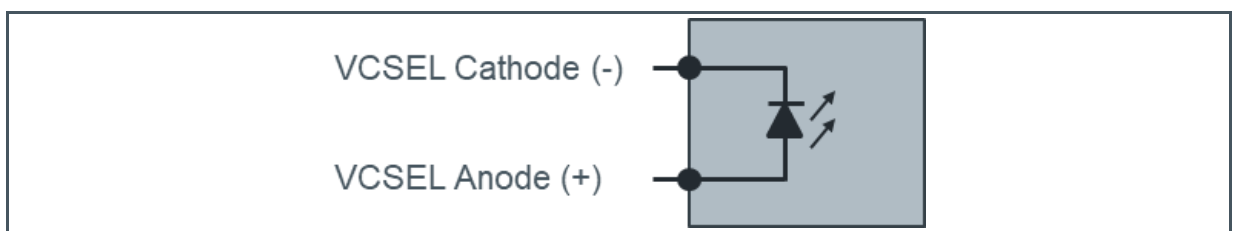


Figure 3:
Functional Blocks of EGA2000



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