

# 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

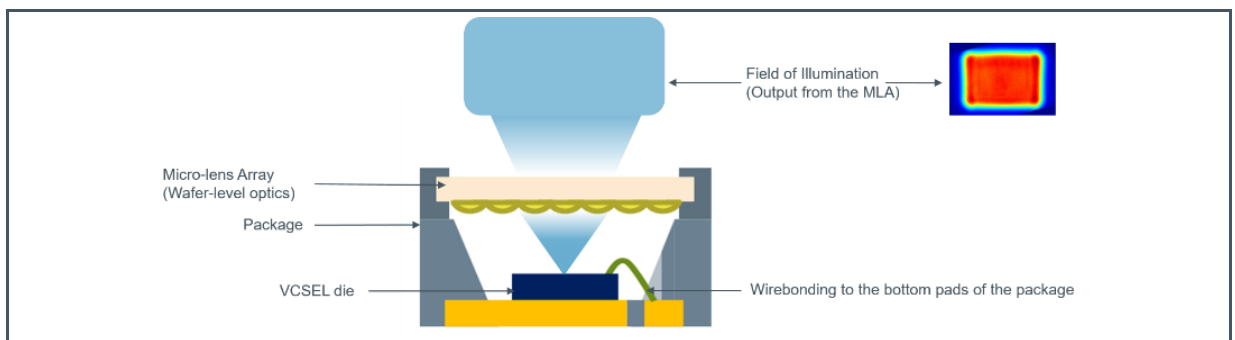
## 3 Applications

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:

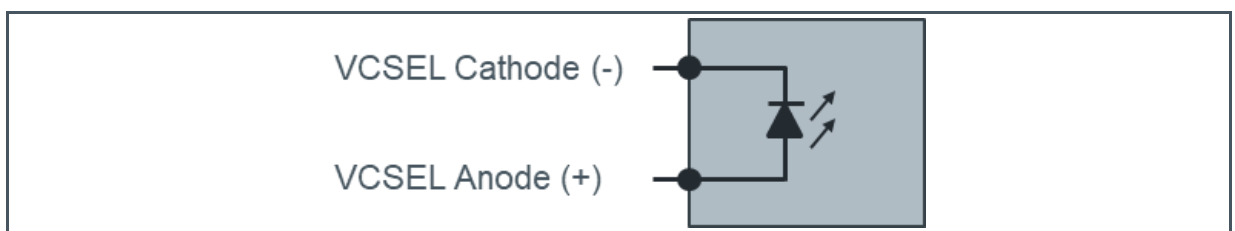
- Factory Automation: e.g. Machine Vision, Volume Measurement
- Home automation: e.g. Smart Cleaning Robot, Smart Robotic Chef, Smart Speaker
- Smart City: e.g. Smart Banking, Contactless Access Control, Delivery Robot
- Entertainment: e.g. Night Vision for War game, Object Avoidance, Avatar

## 4 Block Diagram

**Figure 2:**  
Illustration of EGA2000's Key Components



**Figure 3:**  
Functional Blocks of EGA2000



### Headquarters

ams AG  
Tobelbader Strasse 30  
8141 Premstaetten  
Austria, Europe  
Tel: +43 (0) 3136 500 0

Please visit our website at [www.ams.com](http://www.ams.com)

Buy our products or get free samples online at [www.ams.com/Products](http://www.ams.com/Products)

Technical Support is available at [www.ams.com/Technical-Support](http://www.ams.com/Technical-Support)

Provide feedback about this document at [www.ams.com/Document-Feedback](http://www.ams.com/Document-Feedback)

For sales offices, distributors and representatives go to [www.ams.com/Contact](http://www.ams.com/Contact)

For further information and requests, e-mail us at [ams\\_sales@ams.com](mailto:ams_sales@ams.com)

Copyright ams AG. Trademarks Registered. All rights reserved. The material herein may not be reproduced, adapted, merged, translated, stored, or used without the prior written consent of the copyright owner.