

Product Document

TARA2000-AUT

Automotive High Power Flood Illuminator

1 General Description

The TARA2000-AUT product family is designed for the new generation of 2D and 3D of optical in-cabin sensing applications fitting with 2D near-infrared based cameras as well as time-of-flight and stereo vision systems.

2 Key Features

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

Figure 1:
Added Value of Using TARA2000-AUT

Benefits	Features
4 product configurations	At 850 nm and 940 nm Ultra-narrow, narrow and ultra-wide field of illumination
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
Automotive qualified	AEC-Q102 Grade 2
Safety compliance	ISO26262 and ASIL A compliant
Full traceability	Unit level track with 2D barcode

3 Applications

- Optical in-cabin sensing systems
- Driver monitoring
- Gesture sensing
- Interior monitoring

4 Block Diagram

The TARA2000-AUT 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.

Figure 2:
Illustration of TARA2000-AUT's Key Components

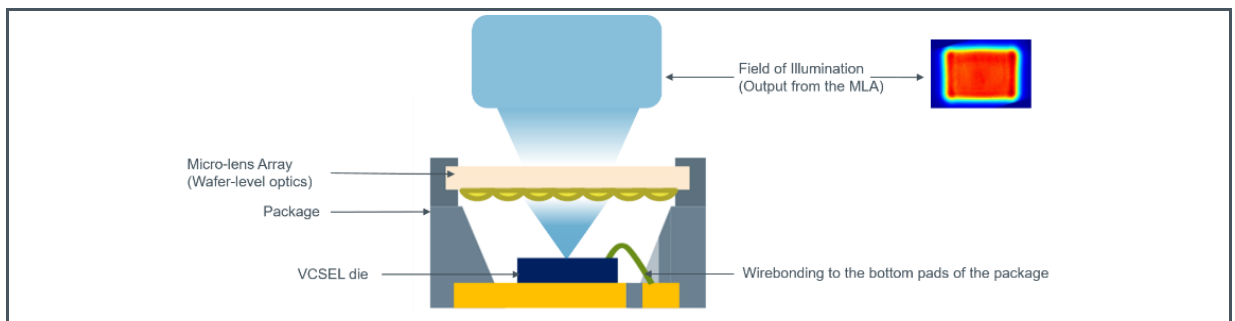
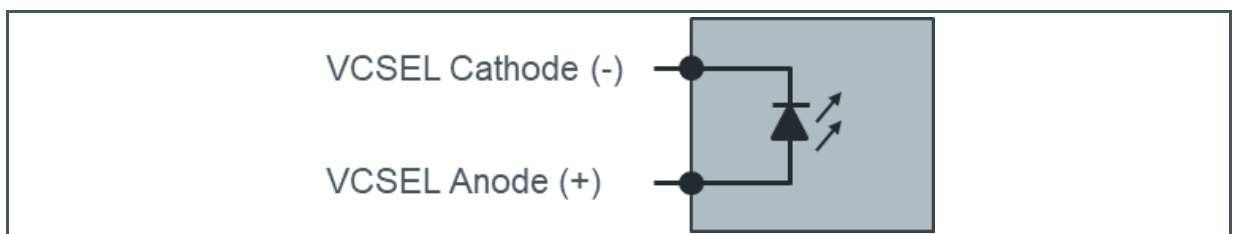


Figure 3:
Functional Blocks of TARA2000-AUT



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