

Product Document



In-Cabin Sensing VCSEL Illuminators

ams.com/TARA2000-AUT

- Edge-to-edge high-power illumination over a rectangular field
- Multiple wavelength and field-of-illumination options
- Full in-house design for high efficiency and reliability
- Industry's first AECQ-102 and ISO26262 compliance

Sensing is life

ams OSRAM

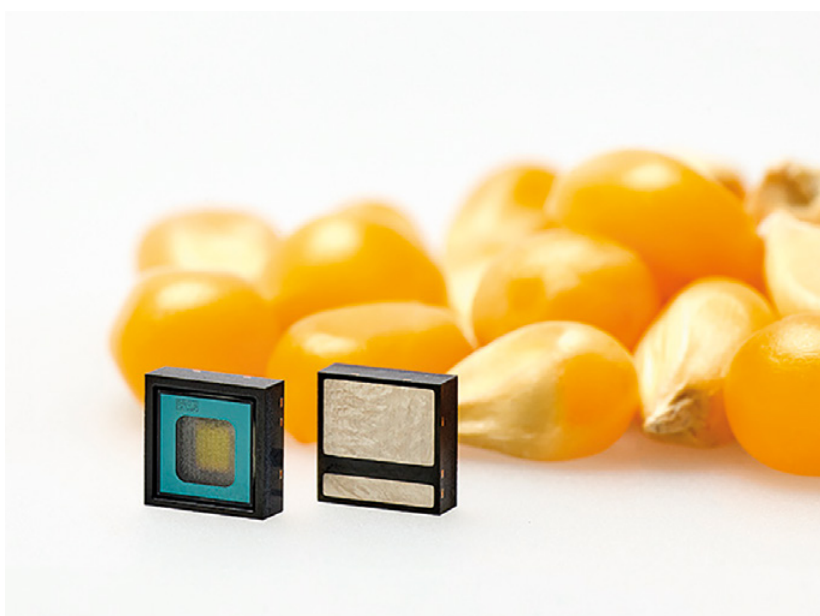
TARA2000-AUT

Automotive high-power flood illuminator

General Description

The TARA2000-AUT is designed for the new generation of 2D and 3D optical in-cabin Sensing applications, where high power illumination and high signal-to-noise ratio is required in any circumstance. VCSEL based illumination enables maximum image quality, reducing the PCB footprint, and combined with a narrow spectral bandwidth ensures high immunity against sunlight and sunglass reflections inside the vehicle.

The ultra-compact module is designed and manufactured with ams' state-of-the-art opto-electronics component manufacturing processes and is AECQ-102 and ISO26262 compliant, a first in its class. TARA2000-AUT can be used both for 2D NIR-Imaging and for 3D sensing systems such as time-of-flight and stereo vision. Different wavelength options offer flexibility to customers using different optical systems, and multiple FOI options make it the ideal fit for driver monitoring, interior monitoring, or gesture sensing.



Features

- >4W optical output power in a pulsed mode
- 3 FOI options: 46°×41° (UN), 59°×42° (N) and 125°×111° (UW)
- 2 wavelengths available: 850nm (UW) and 940nm (UN, N, UW)
- High power conversion efficiency
- Small packaging: 4.1 × 4.1 × 1.38 mm
- AECQ-102 and ISO26262 ASIL A compatible
- 2D barcode for unit level traceability

Applications

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

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