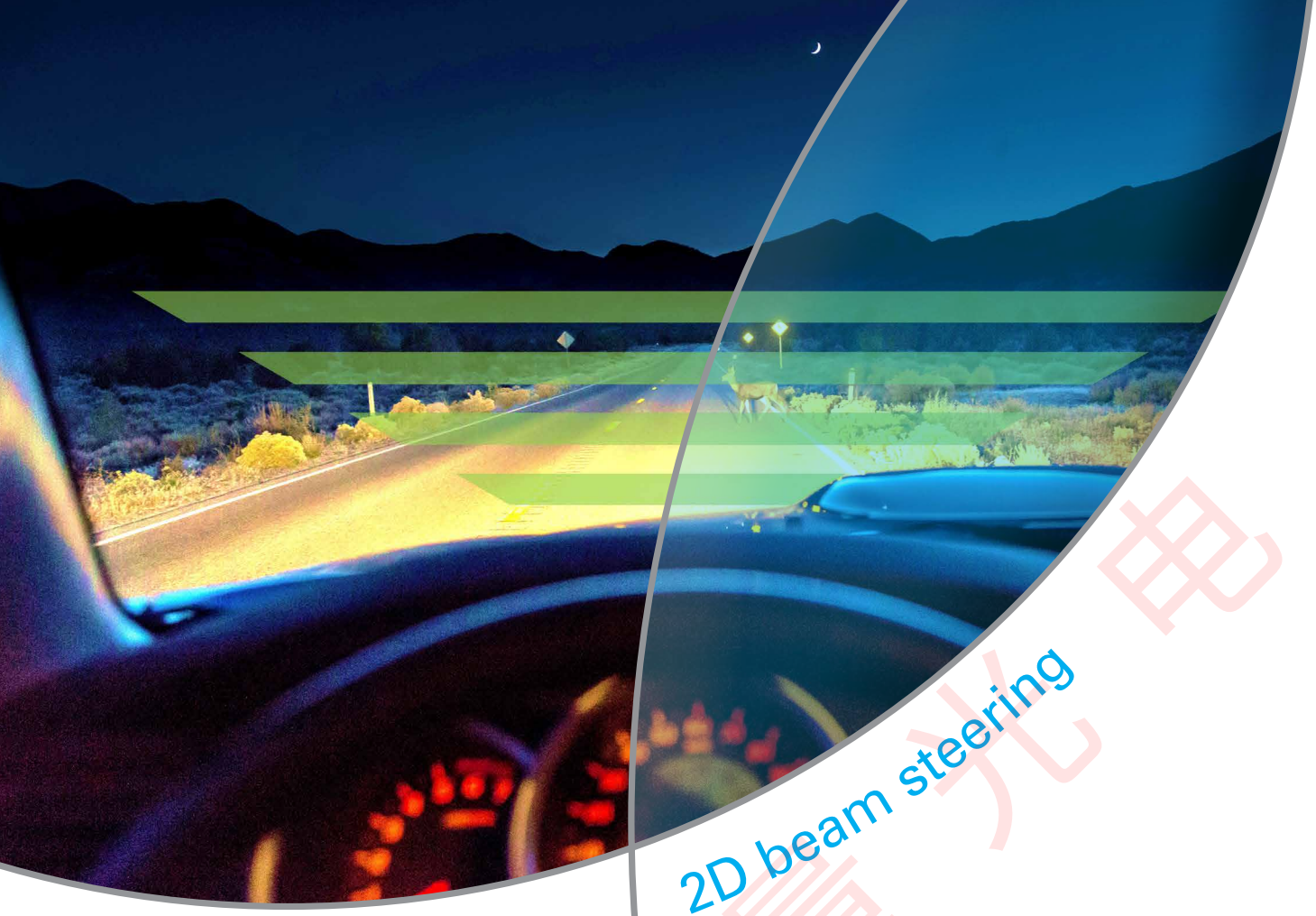

2D beam steering

Dual axis vector scan mirror with accurate position feedback

The compact MR-15-30 series combines the benefits of a large mirror surface with an exceptionally large tilt angle. The mirror is suitable for automotive (LiDAR, headlights, ADAS), biometric, vision and medical applications. A built-in feedback system guarantees high precision position control.

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Dual axis vector scan mirror with position feedback

MR-15-30

Compact, fast and precise beam steering

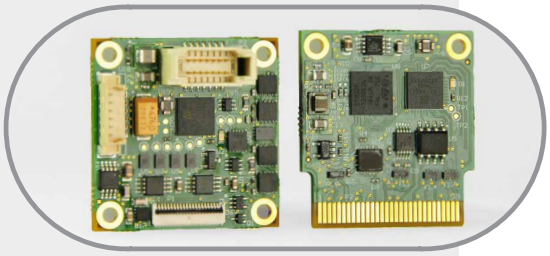
The dual axis mirror series MR-15-30 is the ideal choice for applications that require large deflec-tions combined with a compact form factor. With a mirror size of 15mm the MR-15-30 achieves up to ±25° mechanical tilt, which results in up to ± 50° optical deflection. The mirror includes a position feedback system which allows it to be accurately controlled to <5 µrad with a standard PID controller.

In contrast to galvo mirror heads, the virtual rotation point is very close to the mirror surface. The mirrors are available for use with light in different wavelength ranges such as UV, VIS, and NIR.

Specifications

Scan direction	bi-axial
Mechanical tilt angle (DC & dynamic)	±25° X axis; ±25° Y axis
Mirror diameter	15 mm
Resolution (closed loop)	<5 µrad
Repeatability RMS (typical)	30 - 100 µrad
Full scale bandwidth	20 Hz
Small signal bandwith	350 Hz
Step response (0.1° step / 20° step)	1.4 ms / 7.5 ms
Mirror coating	gold, protected silver
Mirror reflectivity (gold coating)	avg >97% for NIR
Mirror flatness (P-V)	λ/2

OEM driver



The mirror can be controlled by a compact driver that is available with an evaluation board and as OEM version.

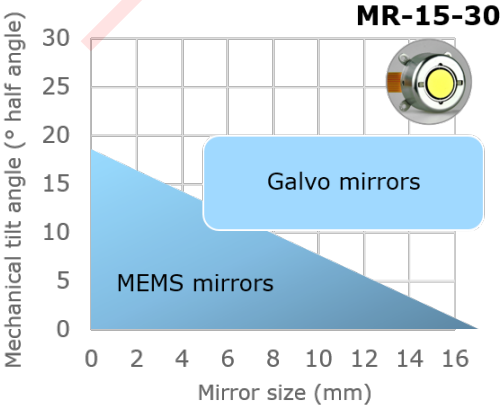
> Interfaces: USB, SPI, analog
> Proxy board (left) + CPU board (right) constitutes a high volume OEM solution
> Proxy board (left) + CPU board (right) + carrier board (not shown) is a low-volume OEM solution
> Release: in Q3/Q4 2018

Advantages

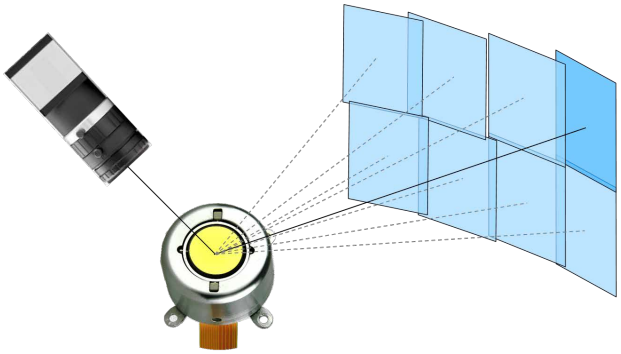
> Large 2D scan angle
> Compact
> Precise

Applications

> Automotive (LiDAR, dynamic headlights, ADAS)
> Vision (field-of-view expansion, zoom)
> Biometric (eye-tracking) & diagnostic equipment
> 3D printing



Field-of-view expansion



For more information, please contact info@auniontech.com