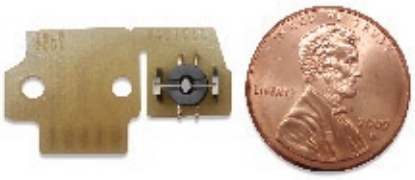


TALP3001

Single-Axis High Speed MEMS Scanning Mirror

The TALP3001 is a single-axis resonant scanning mirror with a fast spin-up and high reflectivity for lasers with wavelengths from visible blue to infrared. Designed as the high speed mirror in a two-mirror raster scanner, the TALP3001 can be used for laser-based imaging, objection detection, or range finding applications as well as laser projection display.

XGA Resolution for Laser-Based Imaging and Display

Competitively, the TALP3001 offers a smaller form factor while delivering a higher resonance frequency than other scanning mirrors on the market. The 29 kHz operating frequency supports display and imaging resolutions up to XGA, and its electromagnetic position sensor provides a video sync signal already integrated into the mirror's package. With its highly reflective and flat mirror surface, the TALP3001 provides a large depth of field for deep focus in imaging and display applications.

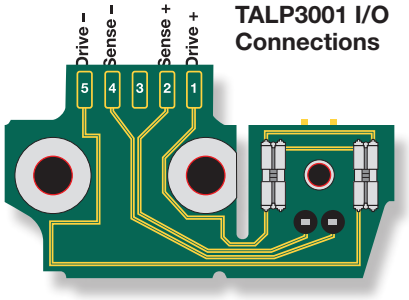
Key Benefits

- Produces large scan area in small footprint
- Enables large depth of field
- Supports up to XGA resolution
- Provides video synchronization capability
- Offers rotational amplitude stabilization
- Suitable for battery-powered applications

Key Specifications	
Mechanical Rotation Angle (deg)	+/- 15
Resonant Frequency (nominal)	29 kHz
Max Drive (V)	24
Max Power (mW)	170
Wavelength Range	430 nm -10 µm
Optical Surface	1.5 mm x 0.75 mm ellipse
Static Flatness (Radius of Curvature)	8 m
Integrated Position Sensor	Yes

Design into More Environments

The TALP3001's high immunity to mechanical shock and vibration allow it to be used in more demanding environments compared to competing components. Additionally, the TALP3001's low drive voltage, low power requirements, and small footprint support battery-powered implementations inside portable devices.



TALP3001 I/O Connections

For more information about TI Analog Mirrors, visit
www.ti.com/analogmirrors

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