

[MOEMS module]

Driver circuits for MEMS mirror

C13884HC / C15087

NEW

The C13884HC and C15087 are circuit boards designed to easily evaluate MEMS mirrors (1D: S12237-03P, 2D: S13989-01H / S13124-01).

FEATURES

[Driver circuit C13884HC]

- For MEMS mirror S13989-01H
- Dimensions: 65 (W) × 35 (D) × 20.9 (H) mm
- The MEMS mirror's phase state during resonance can be monitored, so the fast-axis (non-linear mode) can always be in resonance due to the feedback circuit.
- The back electromagnetic field generated in the fast-axis coil can be used to monitor the optical deflection angle of the fast-axis.
- The slow-axis (linear mode) can be driven by selecting a triangular wave, sine wave, or arbitrary waveform.

[Driver circuit C15087]

- For MEMS mirrors S13124-01 / S12237-03P
- Size: 65 (W) × 35 (D) × 5.8 (H) mm
- Both axes can be driven by a triangular wave, sine wave, or arbitrary waveform.
- The temperature sensor on the MEMS mirror chip can be used to correct the deflection angle. *S13124-01 only



Driver circuit for MEMS mirror C13884HC



Driver circuit for MEMS mirror C15087

MEMS mirror is sold separately.

Core technology



S13124-01

CORE DEVICE

MEMS mirror

The MEMS mirror S13124-01 is an electromagnetically driven mirror that incorporates unique MEMS technology. The device was made smaller by arranging the magnet beneath the mirror. Two-dimensional scanning was achieved in linear mode. Electrical current flowing in the coil surrounding the mirror produces a Lorentz force based on Fleming's rule that drives the mirror. Hamamatsu MEMS mirrors offer a wide optical deflection angle and high mirror reflectivity.

■ Features

- Electromagnetic drive MEMS mirror
- Miniature
- Wide angle
- Low voltage operation
- Mirror size: $\phi 1.95$ mm
- Mirror material: aluminum alloy

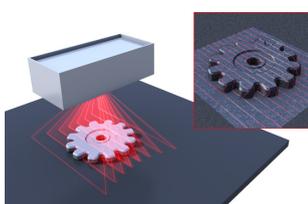
■ Scan image



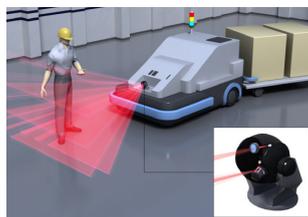
Vector scan by linear mode. ([光] means "light".)

Application examples

■ Machine vision



■ Industrial LiDAR



■ Microscope

