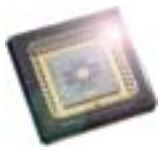
EGISMOS

E100PC

Two-Dimensional MEMS Scanning Mirror (Preliminary)

E100PC is a dual-axis MEMS micro scanning mirror provides high performance two dimensional light scanning solutions in a single monolithic chip.



E100PC Dual-axis optical scanner on a chip

Features

- High performance dual-axis MEMS scanning mirror on a single chip
- Aluminum coated mirror to maximize optical reflectivity for visible wavelength range
- Single-crystal silicon structure operated without mechanical wear
- Ultra low power consumption
- Resonant operation for low scan jitter
- Compact and lightweight
- Shock tolerant

Applications

- Laser projection display - support QVGA 320x240 & WQVGA resolution 400x240
- Laser area sensing
- Bio-medical scan inspection
- LADAR (laser detection and range sensing)
- Non contact measurement and sensing

Contact

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*MEMS: Micro-Electro-Mechanical Systems, device fabricated by silicon micromachining processes

Specifications (Preliminary)

Mirror plate size	1.2 mm circular
Mirror reflectivity	> 80% (400nm~780nm)
Power consumption	< 40 mW
Scan pattern[1]	Sinusodial & Bi-directional
Fast axis:	
Resonant frequency	10,000Hz +/- 5%
Max drive voltage	50 VAC p-p unipolar
Optical scan angle[2]	30° maximum
Slow axis:	Bi-directional
Resonant frequency	1,150Hz +/- 5%
Max drive voltage	50 VAC p-p unipolar
Optical scan angle[2]	20° maximum
Operating temperature	0°~50°C
Operating humidity	10%~85%
Package footprint	10x10 mm^2
Package	Leadless Chip Carrier

1. Mirror is resonantly operated
2. Scan angle adjustable by controlling drive voltage or duty ratio. Exceeding maximum allowable scan angle or maximum drive voltage may cause permanent damage to the mirror.