MEMS Tilting Micro-Mirror

1. Key Specifications

- Single or dual axis tilting
- Mirror size: ø0.82, ø1.0, ø1.2, ø1.5, ø3.5 mm in diameter
- Max. tilt angle range: X +/-7.5 deg., Y +/-2.5 deg.
- Electrostatic actuation (quasi-static actuation); visually zero power consumption

2. Specifications

Parameters	Conditions	Unit	Specifications		
			Min	Typical	Max
Mirror Diameter	Circular (or effective)	mm		Ø0.82, Ø1.0, Ø1.2, Ø1.5, Ø3.5	
Mirror Flatness	ROC	m	0.8	1	5
Reflectivity (Al or Au reflector)	1260-1660 nm	%	96		99
Power Handling		mW			500
Damage Voltage	X and Y axes	V	70		
Actuation Voltage	X axis, at room temp.	V			60
	Y axis, at room temp.	V			60
Max Tilt Angle	X	deg.	+/- 2.5		+/- 7.5
	Y	deg.	+/- 2.2		+/- 2.5
Resonant Frequency	X	Hz	1,300		2,100
	Y	Hz	1,100		2,100
Response Time	From neutral to max tilt angle using a step function input	ms			1
Temperature Stability	Over -5 to 75 °C	deg.			0.001
Durability	Hermetically sealed	Cycle		10^9	
Operating Temperature		°C	-5		75
Storage Temperature Range	5% humidity	°C	-40		85
Baking Temperature	Less than 3h	°C			110
Wire Bond Temperature	Less than 5min	°C			150