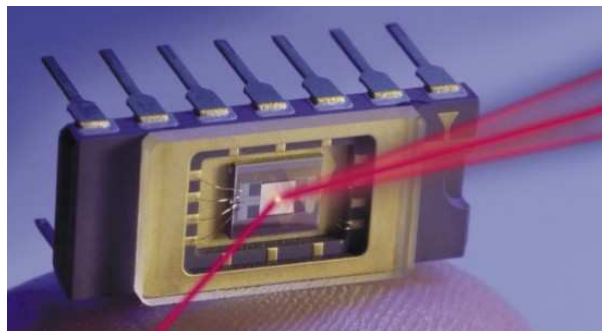


- The exceptional Fraunhofer-technology from the leading manufacturer IPMS Dresden.
- Scanning Micromirrors for 1D and 2D laser beam deflection
- The optical MEMS device you can actually purchase
- Low power consumption, digital drive signal  $\leq 70$  V
- Broadband reflector  $>80\%$  in 300..2500 nm
- Select from 8 of-the-shelf devices and test them in your lab
  - 150 Hz .. 34 kHz
  - large deflection: 16..80° optical scan range
  - 0.5..2 mm mirror diameter



### Description

Scanning Micromirrors are a fascinating innovation. A tiny tiltable mirror in a microchip oscillates and lets a reflected laser beam scan an area (2D) or a straight line (1D). The devices move accurately and at a very high speed without wear or aging.

Scanning Micromirrors are versatile optical MEMS devices that can enhance or enable numerous applications like pattern or image capture, direct writing, pattern projection, laser printers and all kinds of laser measurement techniques.

The resonant nature of the devices is key to their accuracy and stability and also to efficient mass fabrication and testing. But please be aware that you cannot hold the mirror in a tilted position. There is no oscillation below resonance. And deflection decreases quickly above resonance! Further advantages are low drive voltages, almost no current, purely digital drive signal and excellent resistance against shock and vibration.

### Microscanner Demonstrators in ceramic DIP14

For your evaluation we offer a number of pre-designed of-the-shelf devices. You can get acquainted with the technology and its performance. You can verify the principal feasibility of your microscanner application. And you can develop and approve your system design.

no	type	diameter [mm] axis:	frequency [kHz]		plate deflection [± deg]		drive voltage [V]	
			Fast	slow	fast	slow	fast	slow
21	D15B0.25	1,5		0,25		19		20
22	D15B0.4B0.3	1,5	0,44..0,22	0,3..0,15	15..17	4.7	18	20
23	D20B1.3B0.2	2	1,3	0,2	10	11	50	30
24	D05B35B0.15	0,5	34,5	0,15	8	12,5	70	30
25	D20B0.5	2		0,5		21		50
26	D10B19B0.6	1	19	0,57	5,2	14	70	35
27	D06B28B1.2	0,6	27,8	1,2	7,5	20	70	60
28	D05B15	0,5		14,5		11,2		50

These devices are offered as demonstrators for evaluation purpose only. We cannot give any warranty, if the demonstrators are used in a commercial product. In particular we cannot accept any form of liability.

The demonstrator devices come in ceramic DIP14, not sealed and suitable only for lab environments. Optionally the lid can even be easily detachable. The DIP14 allows for flexible handling and easy mounting in order to give you quick access to the results you need.

The next step on your roadmap can be a Semi-Custom Design, a Full-Custom Design or even a Custom Technology Development depending on your technical requirements and the targeted volumes.

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