

# Highest-Speed Solid-State Laser Beam Deflector

## Highlights

- ✓ Bi-direction voltage-controlled continuous and step scanning
- ✓ Scan up to 10 degrees deflection at 10k - 100kHz
- ✓ Compact size and wide operation wavelength range: 488 – 3,500 nm
- ✓ “All solid state”, “Opto-electronic” deflector without moving parts

## Applications

- ✓ Bio Medical Fields i.e. OCT light source , Microscope
- ✓ Industrial Fields i.e. Laser marker , Laser processing
- ✓ Environmental Fields i.e. Gas sensor , Laser Radar

## KTN Deflector Module



1D KTN deflector module & Driver amplifier



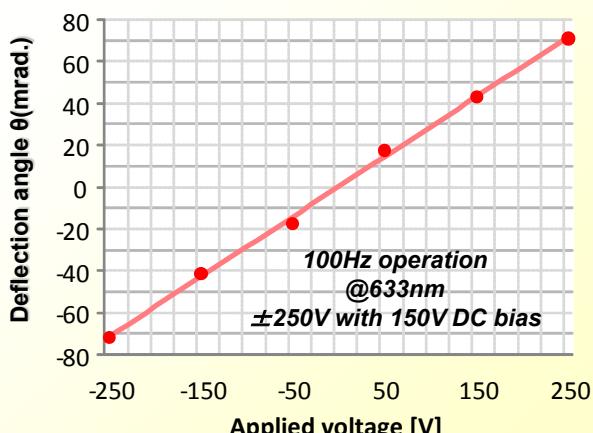
KTN deflector chip

KTN deflector mount module

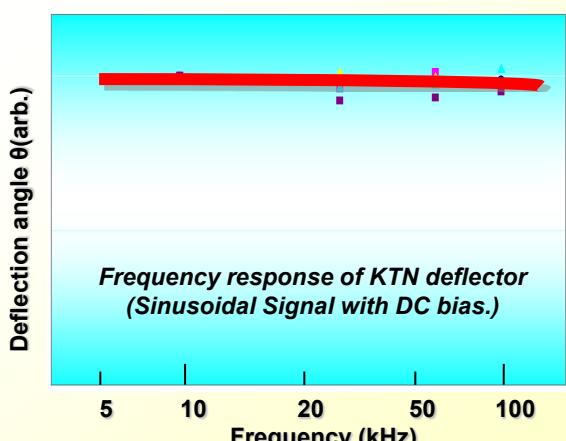
### Specifications

Deflection angle	Visible	1235-1385nm	1475-1625nm
1D	150mrad	120mrad	120mrad
2D Horizontal	150mrad	120mrad	120mrad
2D Vertical	120mrad	96mrad	96mrad
Operation frequency	10k -100kHz		
Beam diameter	0.5 mmφ		
Dimension	23 × 23 × 50mm <sup>3</sup> (1D) 40 × 40 × 80mm <sup>3</sup> (2D)		

## Voltage-controlled Scanning



## Frequency Response



\*KTN ( $\text{KTa}_{1-x}\text{Nb}_x\text{O}_3$ ) : Potassium Tantalate Niobate