

# Conoptics Inc. manufacturers of electro-optic modulators and modulation systems.

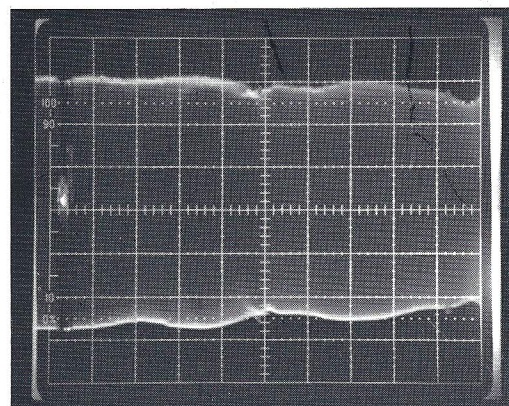
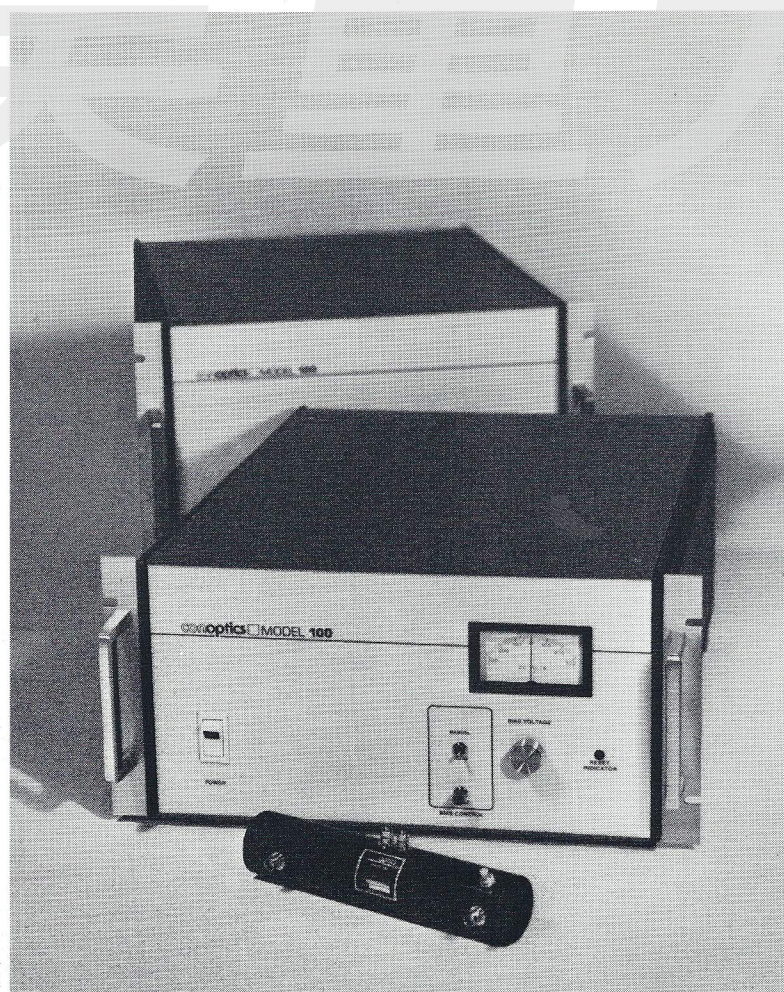
Conoptics Inc. was formed in 1981, in Danbury, Ct. to manufacture laser modulators and modulation systems incorporating the Pockels effect. During the past two years a group of engineers and technicians with an accumulated experience of 100 years in this field have developed a complete line of versatile and unique electro-optic modulators and modulation systems.

Conoptics line of modulators include the Model 370, which is a four crystal 45 X cut ADP Pockels Cell with a half wave voltage of 230v @ 633nm or 180v @ 488nm: The model 380 series all employ the same crystal cut and dimensions, but differ in their electrode configuration and line impedance as a function of bandwidth capability.

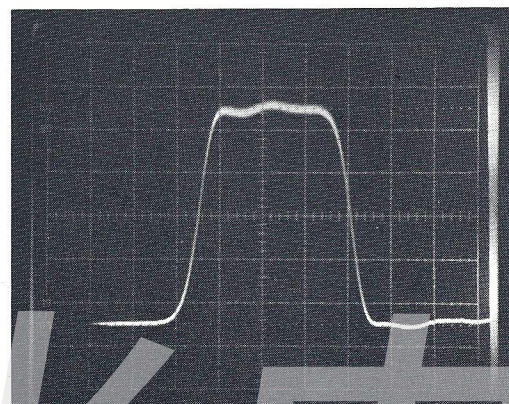
The 380 series is available in two port or 4 port configurations. The two port version is available in 50 ohm (employed in our Model 50) or 100 ohm (employed in our Model 25). The four port version is available only in 50 ohm impedance which is employed in our Model 100.

Systems of 10, 25, 50 and 100 MHz (-3db) bandwidth are available, along with autobias controls for image, data or disc recording.

## Model 100



Detected Swept Response (50 Mhz Markers)



Detected Pulse Response (5 ns/div.)

## Specifications

Modulation Bandwidth	DC to 100 mhz (-3db) -.2db @ 25 mhz -.75db @ 50 mhz -1.7db @ 75 mhz	Typical
Rise & Fall Time	≤3.5ns (10-90%)	
Input Signal	IVP-P bipolar, unipolar positive or negative. (±3v max without damage)	
Input Impedance	50Ω ± 2% @ DC, VSWR ≤1.12 through 100 mhz	
Forward voltage gain	39db (90vp-p push-pull/section output maximum.) A vernier gain adjust of ± 15% is provided internally.	
Signal/Noise Ratio	≥60db, (Does not include laser noise, electrical measurement only)	
Dynamic Optical Efficiency	80% @ 488nm.	
Optical Bandwidth	400nm to 800nm	
Modulator Useable Aperture	2.5mm square.	
Extinction Ratio	500/1 @ 633nm 250/1 @ 514nm 200/1 @ 488nm Measured with 1.2mm beam dia (1/e <sup>2</sup> ) @ a distance of 1 meter	
Maximum Optical Throughput Power	3.5w/mm <sup>2</sup> TEM OO q	
Cooling	Forced air cooled, drive electronics & power supply.	