

Benchtop LCD Drivers

Features

- Adjustable switching frequency and voltage settings
- Internal or external frequency control
- Convenient, standalone operation
- Complete user documentation
- Out-of-the-box functionality
- Basic cables included
- Operates in minutes
- CE compliant

Applications

- Mates perfectly with BNS XT Series of Optical Shutters and Polarization Rotators
- General purpose liquid crystal device (LCD) driver
- Laboratory LCD evaluation
- Product development

Benefits

- Full functionality
- High reliability
- Convenience
- Ease of use

Description

Boulder Nonlinear Systems, Inc. (BNS) now offers a versatile line up of liquid crystal device (LCD) drive electronics for general purpose and laboratory requirements. Our new XT Series Benchtop LCD Drivers are designed to drive the XT Series of Optical Shutters and Polarization Rotators.

These Benchtop Drivers produce a pre-conditioned, dc-balanced, 2 kHz drive electronics signal, perfect for the XT Series Optical Shutters and Polarization Rotators.

Two adjustable voltage settings (from 0 to ± 25 volts) are included. With BNS standard XT Series Optical Shutters, for example - one is typically set at a high voltage level (20 volts or less). Higher voltage levels typically provide faster response (from open to closed) and higher contrast ratio performance. The other voltage dial is generally set to a low voltage level (typically zero).

Users can also adjust the switching rate between the two voltage settings using the Switching Frequency control dial. By design, the internal Signal Source always operates with a 50% duty cycle (ratio between open and closed states). Additionally, external switching frequency control is enabled using any low voltage square wave or digital signal (such as TTL).

XT Series Benchtop LCD Drivers are high quality instruments, provided to support evaluation and development applications using XT Series Optical Shutters and Polarization Rotators. Boulder Nonlinear Systems manufactures and sells liquid crystal based Optical Shutters and Polarization Rotators for OEM and laboratory applications.

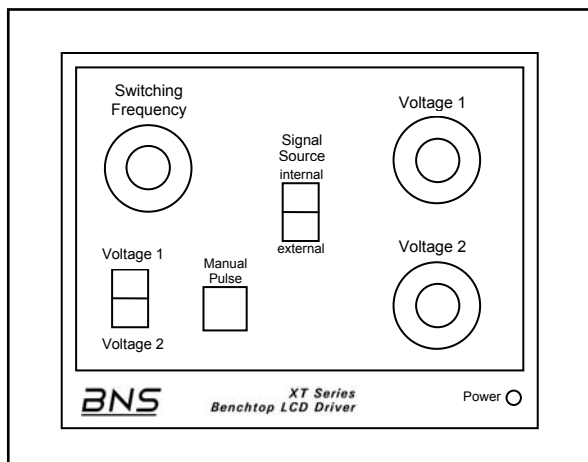
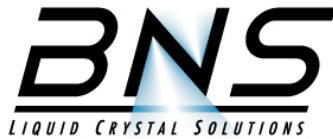


Figure 1 ~ Front control panel of BNS XT Series Benchtop LCD Driver.



Benchtop LCD Drivers XT Series

*Supports XT Series Optical Shutters and
Polarization Rotators*

Benchtop LCD Drivers

XT Series

Specifications (Preliminary)

Current Load	20 mA (maximum)	
Drive Voltage	0 to \pm 25 V ac	
Drive Waveform	2 kHz (\pm 0.1 kHz) square wave with 50% duty cycle	
External Modulation (input)	<i>Minimum</i> TTL levels	<i>Maximum</i> \pm 12 V
Output Bias	\pm 10 mV dc (maximum)	
Power Consumption	5 W	
Power Requirement (selectable)	110 V ac (\pm 10%), 50/60 Hz	
	220 V ac (\pm 10%), 50/60 Hz	
Replaceable Fuse	220 V ac, 0.25 A	
Switching Frequency	internal (50% duty cycle)	0.3 – 150 Hz (minimum)
	external (variable duty cycle)	0 – 1 kHz

External Dimensions (width x depth x height)	177.8 x 127.0 x 76.2 mm (7 x 5 x 3 inches)
Operating Temperature	0 to 50° C
Storage Temperature	- 55 to + 100° C
Weight	0.87 kg (1.92 lb)

Above specifications are subject to change without notice. Please contact Boulder Nonlinear Systems for additional updates.

Company Profile

Boulder Nonlinear Systems, Inc. (BNS) is an innovative technology company specializing in dynamic liquid crystal polarization control solutions for both laser-based and imaging systems. Company strengths in scientific research and development are leveraged into OEM and standard product offerings targeted for astronomy, biomedical, defense, microscopy, optical computing, optical storage, and telecommunications applications.

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