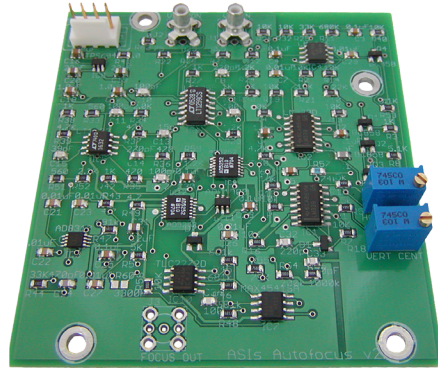




APPLIED SCIENTIFIC
INSTRUMENTATION

Autofocus System



ASI's video autofocus provides a simple focus control solution when using an analog video camera and any of ASI's products with Focus Control, including standard and piezo XYZ stage systems, linear and gantry stage systems, and stand-alone MFC-2000 focus controllers.

The autofocus system uses the spatial information present in the analog video signal to determine a focus value. Firmware algorithms then maximize this focus value by adjusting the focal position with an ASI focus drive. The autofocus option requires a standard NTSC/RS170, PAL/CCIR, or S-Video analog video signal from a camera. Autofocus with a digital camera is possible with a dual-output camera, or by incorporating ASI's Photoport Beam Splitter.

ASI's autofocus system has improved sensitivity and stability, 8X higher resolution, and incorporates an auto-calibration routine that automatically accommodates for diverse lighting conditions, specimen characteristics, and different objective powers.

Video Autofocus Features

- Fast Focusing – Typical accurate focus operation takes about one second, and can be configured for even faster operation.
- Accurate Focusing – Where there is a “best focus” plane, ASI's autofocus will find it as well as any human operator.
- Objective Lens Protection – Once zeroed, autofocus will not move more than 0.2 mm closer to the sample for safety.
- Focus Value Readout – The focus value is always displayed on the LCD readout so you can easily verify correct operation.
- Video Region Select – Rectangular subsection of the video frame may be selected as the active focus region. Selection is highlighted on monitor output.
- Auto Calibration – Performs a series of scans and selects various internal parameters to achieve optimal focusing.
- Focus Algorithms to fit your need – Autofocusing can be accomplished via push-button on the controller or with commands from the host computer.
- Normal Full Range and Hill Detect