Ferroelectric Liquid Crystal Controller

The FCS010 is a two-channel liquid crystal controller specifically designed to drive our ferroelectric liquid crystal shutters and rotators. It has two short-circuit protected output channels driven 180 degrees out of phase.

The pre-configured controller waveforms are optimized for FLC devices. We can tailor the waveform to your specific needs based on application and purchased FLC device. The drive waveform is output through SMA connectors. This controller is 100% RoHS compliant and is powered by a separate 12V international power supply.

### Key Features

- Automatically DC balances
- External modulation
  - 10V output
  - Gate input
  - Drive I/O
- Frequency range 1 Hz – 10 kHz

### Liquid Crystal Suite

- Variable Retarders
  - Liquid Crystal Variable Retarder
  - UV Variable Retarder
  - MWIR Variable Retarder
  - OEM LCVR

- Rotators
  - Achromatic High Speed Rotator
  - Binary Rotator
  - Polarization Rotator

- Shutters / Attenuators
  - Achromatic High Speed Shutter
  - High Contrast Shutter
  - Variable Attenuator

- Controllers
  - Analog Controller
  - FLC Controller
  - LC Digital Interface Controller
  - Temperature Controller
  - Two Channel High Voltage Controller

### Specifications

<table>
<thead>
<tr>
<th>Specifications</th>
<th>Details</th>
</tr>
</thead>
</table>
| Dimensions     | 5.3 in. W x 5.3 in. L x 2.0 in. H  
13.5 cm W x 13.5 cm L x 5.1 cm H |
| Number of LC Channels | Two, running identical programs 180° out of phase |
| Output Waveform | Bipolar ± 15V peak voltage,  
± 10V holding voltage |
| Amplitude Resolution | 16-bit; 1 mV voltage resolution |
| Internal Drive  | 1 to 10,000 Hz, 50% duty cycle,  
frequency controlled by front-panel 10-turn knob |

### Ordering Information

| Ferroelectric Liquid Crystal Controller | FCS010 |

Compact, rugged, light weight – 5.3 x 5.3 x 2 in. form factor