



Programmable switching systems for automated test,  
data acquisition and communications

2555 Baird Road, Penfield, New York 14526 • cytec-ate.com • (800)346-3117 • (585)381-4740

## Cytec Model 7721 5 segment, 48 wire Line Length Simulator Switch

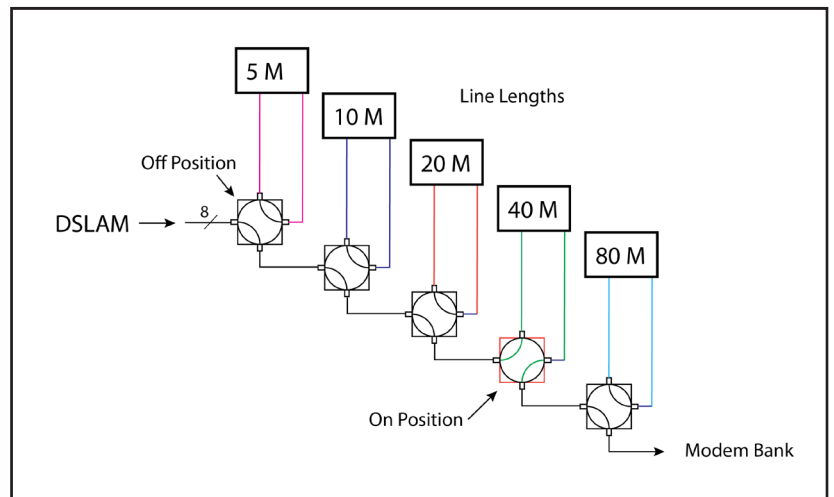


5 segment, 24 pair G-fast DSL switch.

### Typical Line Length Applications:

- DSL, ADSL, VDSL and G-Fast:
  - 5 Segment, 48 wires ( 24 pairs )
  - 10 segment, 24 wires ( 12 pairs )
- Ethernet up to 10GBaseT

Cytec's Model 7721 is a physical layer switch using electro-mechanical relays with low on resistance and 100 ohm characteristic impedance. The 6 RU, 19" rack Mount chassis allows switching of any signal that can be transmitted over CAT6A cable and is perfect for line length testing, failsafe systems or redundancy systems. System can switch POE or DSL lines with a DC voltage.

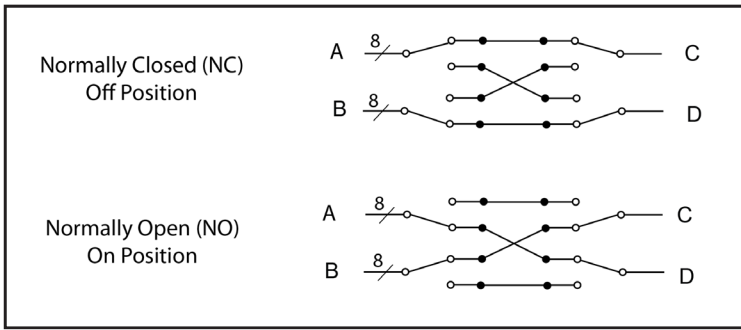


Typical 5 segment Line Length set-up

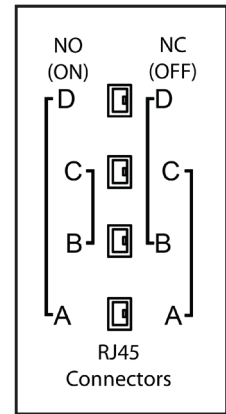
### Chassis Features:

- Up to 30 eight wire transfer switches per chassis.
- Separate or group control for ease of programming.
- LAN, GPIB, RS232 and USB Control.
- Manual Control option for use without computer.
- Industry standard CAT6A RJ45 connectors.
- Eight wire ( 4 pair ) 2x2 modules.
- Full LED display & remote status feedback.
- Simple command set and addressing.

• Contact Cytec at 1-800-346-3117 or [sales@cytec-ate.com](mailto:sales@cytec-ate.com)



Single switch schematic and rear panel layout.



## SWITCH SPECIFICATIONS

<b>Max Switched Voltage</b>	<b>+/- 110 V Peak</b>
<b>Max Switched Current</b>	<b>1 amp</b>
<b>Max Carry Current</b>	<b>2 A continuous</b>
<b>Max switched power</b>	<b>30 Watts, 62.5 VA</b>
<b>Breakdown Voltage</b>	<b>750 Volts peak</b>
<b>Operating Time</b>	<b>3.0 ms</b>
<b>Life Expectancy</b>	<b>100 Million cycles cold switched 50 Thousand cycles at 30 Watts</b>
<b>Connectors</b>	<b>CAT6A RJ45 8 wire.</b>
<b>Pin-out</b>	<b>Per EIA / TIA 568</b>
<b>Pairs</b>	<b>1-2, 3-6, 4-5, 7-8</b>

### RF Data ( Single Module )

<b>Impedance</b>	<b>100 ohms twisted pairs.</b>	
<b>2x2 Bandpass</b>	<b>DC to 500 MHz ( - 3 dB point ) -1.3 dB @ 212 MHz</b>	
<b>2x2 Isolation</b>	<b>Best pairs 12-78</b>	<b>Worst pairs 36-45</b>
	<b>-80 dB @ 20 MHz</b>	<b>-57 dB @ 20 MHz</b>
	<b>-60 dB @ 100 MHz</b>	<b>-47 dB @ 100 MHz</b>
	<b>-60 dB @ 212 MHz</b>	<b>-44 dB @ 212 MHz</b>
	<b>-53 dB @ 300 MHz</b>	<b>-31 dB @ 300 MHz</b>

<b>Return Loss</b>	<b>&gt; 29 dB @ 50 MHz (1.07:1)</b>
	<b>&gt; 17 dB @ 100 MHz (1.33:1)</b>
	<b>&gt; 15 dB @ 212 MHz ( 1.43:1)</b>
	<b>&gt; 11 dB to 350 MHz ( 1.78:1)</b>

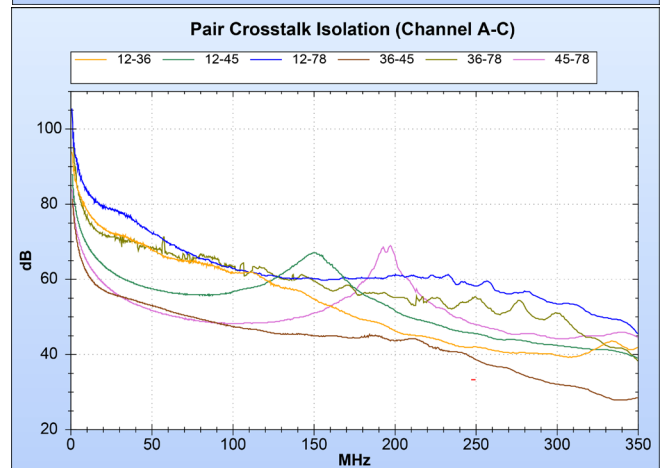
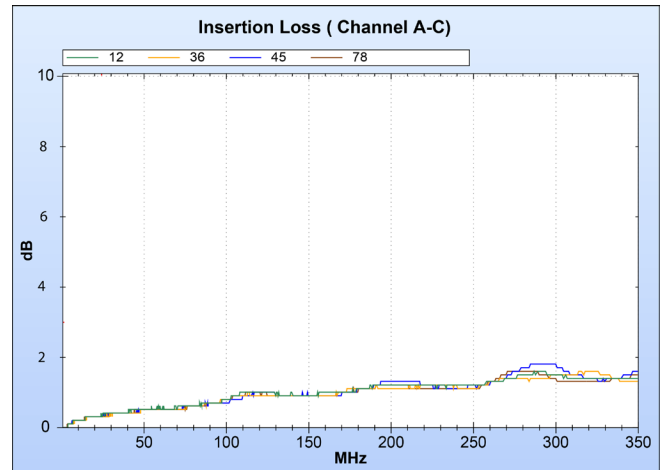
Programming Examples and support available in almost any language including:

- C, C++, Java, Python, TCL
- National Instruments LabView and LabWindows
- Matlab ( Mathworks )
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## Contact Cytec for configuration options, price and availability.

30 days ARO. Smaller and larger systems are available. Many other relay and connector types available. Custom systems with little to no NRE. Call or e-mail for quotes or technical help.

Check our web page at: [cytec-ate.com](http://cytec-ate.com)



If greater crosstalk isolation is required, you can use only the pairs on pins 12 and 78 and get the isolation shown on the blue line.

