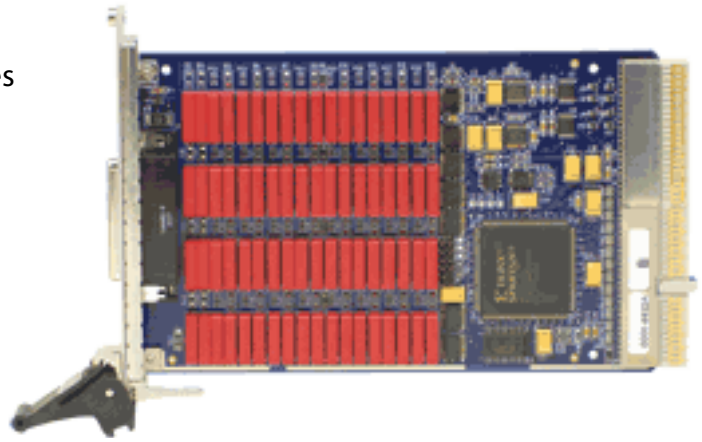
Digalog Test Engineering

0000-6622
32 Channel Discrete Switching Card

PXI

Features

- 32 Channels of "dirty closed" or "leaky open" switches
- 512 state scan list
- PXI triggers
- Programmable scan advance delay
- Drivers Provided for: Windows 2000/XP/NT/ME/9x
- Programming: Visual Basic, Visual C/C++ LabView, LabWindows/CVI, CVI Function Panels



Function

The P6622 Discrete Switch card consists of 32 channels that can be connected to one of two buses. The buses are common to a bank of eight channels. Each channel can use one of two paths, either a 47 ohm path or a 51.1 kohm path. This configuration allows for "dirty closed" and "leaky open" electrical testing. The "dirty closed" connection consists of a relay contact in series with a 47 ohm resistor. The "leaky open" contact consists of a relay contact in series with a 51.1 kohm resistor.

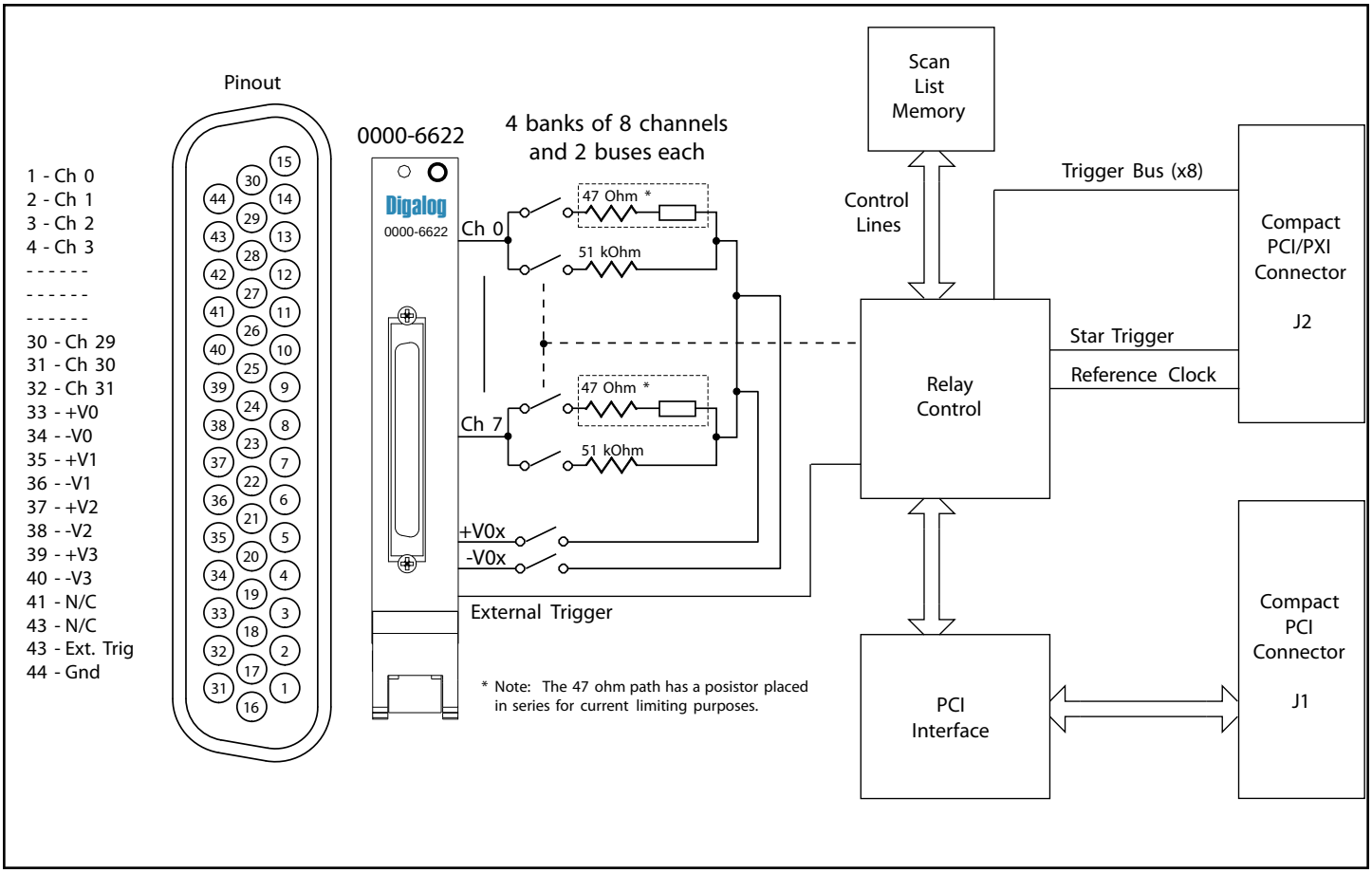
The card's configuration is controlled with function calls. These calls can either program the card manually or using the on board memory to load up to 512 different states. Several trigger sources or software may be used to advance the memory through the states.

Every time the card's paths change state (either in manual mode or the scan advance mode), the Scan Advance Output trigger occurs 1ms after the state change. The user can delay this trigger even longer by using the ConfigureScanTrigger call. After completion of these delays, this output trigger may be sent to other cards on the PXI bus through one of the PXI Trigger lines. This trigger can be used to signal other cards that the paths have changed.

Each channel can handle up to 20 volts DC (20VAC). The 47 ohm path is current limited to 40 mA by a PTC thermistor.

PXI Standard

The 6622 32 ChannelDiscrete Switch Card follows the PXI Specification for peripheral cards. This standard, controlled by the PXI Systems Alliance, builds upon the CompactPCI Specification. The PXI specification adds several enhancements to CompactPCI, most notably a trigger bus, a local bus, a local bus, a Star trigger, and a reference clock. The specification also includes more stringent system mechanical and software requirements.



PXI Details	
PXI Specification	Revision 2.0 (July 28, 2000)
Form Factor	PXI 3U (half-height), single slot (0.8")
PCI Interface	
Bus Width	32-Bit
I/O Voltage	5V
Bus Speed	0-33MHz
Bus Master	No
Interrupts	No
Hot Swap	No
PXI Signals	
PXI Trigger Bus	Source and Destination
PXI Star Trigger	Destination
PXI Local Bus	No
PXI Reference Clock	10MHz Required
Required Power	
+5V	To be determined
	To be determined
Generated Wattage	
	To be determined
	To be determined
	To be determined

System Operating Environment	
Operating Temperature	0 – 35° C, 32 - 95° F
Humidity	20% to 80% Relative Humidity

Channel Details		
Path Resistance	47ohm, ±10% 51.1kohm, ±1%	
	DC	AC
Max Channel Voltage	20VDC	20VAC
Current Limited	40mA	40mA
Mechanical Life Expectancy	500 x 10^6	
Maximum Operating Time	0.5ms	
Replacement Relays	Coto-9091-05-01	

Bus Relay		
Maximum Bus Voltage	20VDC	20VAC
Maximum Switching Current	0.5A	0.5A
Maximum Switching Power	10W	10VA
Maximum Carry Current	TBD	TBD

Connector Details		
I/O Connector	AMP	748482-5

Programming Details	
Scan List Depth	512 States
Scan Delay (Default)	1ms

External Trigger Input	
Trigger	Rising edge, TTL levels
Pulse sidth	30ns minimum
Time between triggers (Default)	1ms

Specifications are subject to change without notice.

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