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so your equipment works exactly as you specify.

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- ITAR-certified secure asset solutions

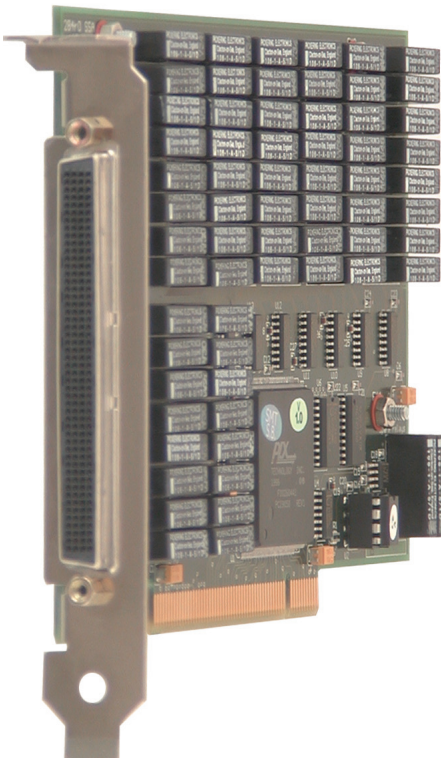
Expert team | Trust guarantee | 100% satisfaction

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Find the *Pickering 50-110-121-S1* at our website: *Click HERE*

50-110/115/120/125
PCI Reed Relay Card

- 25, 32, 50 or 64 Reed Relays Per Card
- SPST, DPST, SPDT and Shielded Configurations
- Ruthenium Reed Relays Suitable For Low Level Signals
- Uses High Reliability Pickering Reed Relays For Maximum Performance
- Fast Operating Speed 250µs Typical
- Switch up to 150VDC/100VAC, 1.25A with 20W Max Power
- VISA, IVI & Kernel Drivers Supplied for Windows XP/Vista/7
- Shares Similar Architecture To PXI 40-110 Card
- 2 Year Warranty



The 50-110/115 range of switching cards are available in both Changeover (SPDT) and Normally Open (SPST & DPST) configurations. Connections are made via a front panel 200-pin female connector.

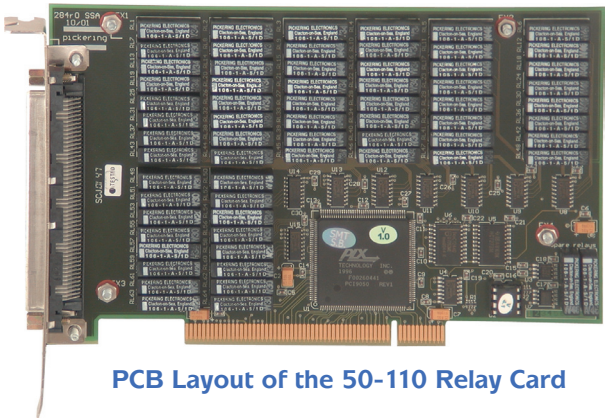
For applications requiring improved bandwidth and crosstalk performance please look at our 50-120/125 range of shielded reed relay cards.

General purpose reed relays are suitable for the construction of small switching networks, for slaving up to larger switches or for operating external devices (e.g. lamps, solenoids etc.).

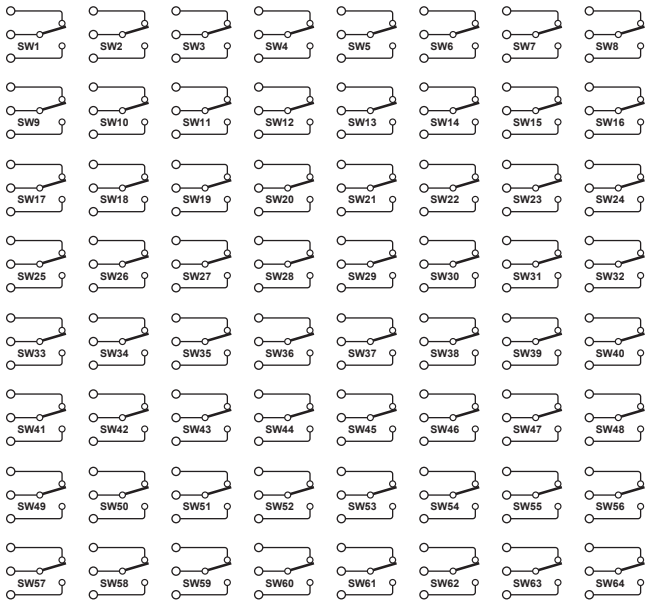
All of the reed relays used in our PCI cards are manufactured by our sister company Pickering Electronics. Pickering reed relays offer very high reliability (over 10^8 operations) with maximum switching performance, especially for low level signals.

Range Description:

50-110	32 or 64 x SPDT Reed Relays.
50-115-X21	32 or 64 x SPST Reed Relays.
50-115-X22	25 or 50 x DPST Reed Relays.
50-120	32 x Shielded SPDT Reed Relays.
50-125	32 or 50 Shielded SPST Reed Relays.



PCB Layout of the 50-110 Relay Card



Schematic of the 50-110-121 Relay Card – 64 x SPDT Reed Relays

Relay Type

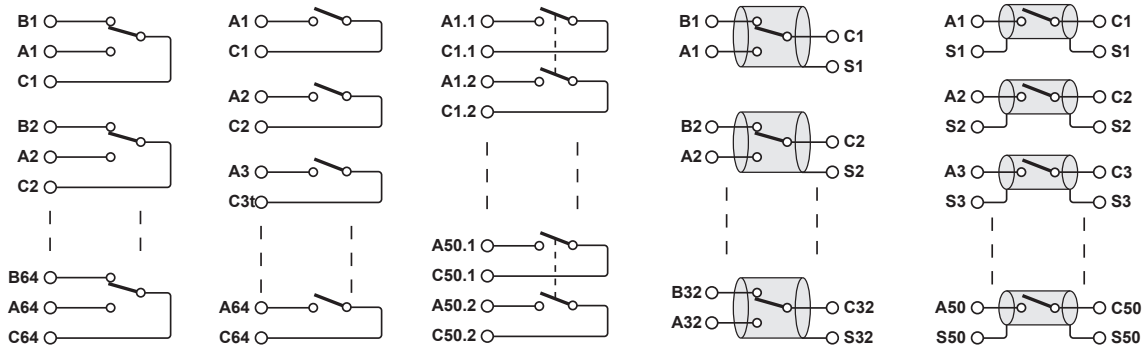
The 50-110/115/120/125 is fitted with Reed Relays (Ruthenium electroplated type), these offer very long life with good low level switching performance and excellent contact resistance stability.

Spare Reed Relays are built onto the circuit board to facilitate easy maintenance with minimum downtime.

All reed relays are manufactured by our sister company Pickering Electronics, www.pickeringrelay.com.

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50-110-121 50-115-121 50-115-122 50-120-021 50-125-121

Switching Diagrams for the 50-110/115/120/125 Reed Relay Card

Programming

Pickering provide kernel, IVI and VISA (NI and Agilent) drivers which are compatible with Windows XP/Vista and Windows 7 operating systems. The VISA driver is also compatible with Real-Time Operating Systems such as LabVIEW RT. For other RTOS support contact Pickering.

These drivers may be used with a variety of programming environments and applications including:

- **National Instruments** products (LabVIEW/LabWindows/CVI/MAX/TestStand etc.)
- **Microsoft Visual Studio** products (Visual Basic/Visual C+)
- **Agilent VEE**
- **Mathworks Matlab**
- **Geotest ATE Easy**

Drivers for popular Linux distributions are available, other environments are also supported, please contact Pickering with specific enquiries.

Power Requirements

Power consumption from the 5V backplane is as follows:

Minimum: 0.8W Typical: 1.4W Maximum: 5W.

Physical Parameters

Physical characteristics:	Single slot short PCI format
Signalling Environment:	+5V only
Signal Connector:	200-way female LFH connector

PCI Compliance

The 50-110 series complies with the PCI Specification 2.0 (issued Aug 2000).

Safety & CE Compliance

All cards are fully CE compliant and meet applicable EU directives: Low-voltage safety EN61010-1:2001, EMC Immunity EN61000-6-1:2001, Emissions EN55011:1998.

Operating/Storage Conditions

Operating Conditions

Operating Temperature:	0°C to 55°C
Humidity:	Up to 90% non-condensing
Altitude:	5000m

Storage and Transport Conditions

Storage Temperature:	-20°C to +75°C
Humidity:	Up to 90% non-condensing
Altitude:	15000m

Latest Details

Please refer to our Web Site for Latest Product Details:
www.pickeringtest.com

Switching Specification

Switch Type:	Ruthenium Reed
Max Switching Voltage:	150VDC/100VAC
Max Power: Max Switch Current: Max Carry Current:	20W (3W for SPDT) 1A (0.25A for SPDT) 1.25A
On Path Resistance: Off Path Resistance: Differential Thermal Offset:	<800mΩ (400mΩ typical) $>10^9$Ω <10µV
Crosstalk (100Ω balanced): Isolation (100Ω balanced):	80dB (1MHz), 72dB (10MHz) 62dB (25MHz) 75dB (1MHz), 60dB (10MHz) 55dB (25MHz)
Operate Time: Release Time:	<0.5ms, 0.25ms typical <0.5ms, 0.25ms typical
Expected Life, low power: Expected Life, full power:	$>1x10^8$ operations $>1x10^6$ operations

Product Order Codes

32 x SPDT, Ruthenium Reed Relays	**50-110-021**
64 x SPDT, Ruthenium Reed Relays	**50-110-121**
32 x SPST, Ruthenium Reed Relays	**50-115-021**
64 x SPST, Ruthenium Reed Relays	**50-115-121**
25 x DPST, Ruthenium Reed Relays	**50-115-022**
50 x DPST, Ruthenium Reed Relays	**50-115-122**
32 x Shielded SPDT Reed Relays	**50-120-021**
32 x Shielded SPST Reed Relays	**50-125-021**
50 x Shielded SPST Reed Relays	**50-125-121**

Mating Connectors & Cabling

For connection accessories for the 50-110 series please refer to the **90-002D** 200-way LFH Connector Accessories data sheet where a complete list and documentation can be found for accessories, or refer to the Connection Solutions catalog.

Support Products

Spare Relay Kits

Kits of replacement relays are available for the majority of Pickering's PXI switching modules, simplifying servicing and reducing down-time. The relay kits for the 50-110 range are as follows:

- 91-100-061 kit for 50-110-021 & 50-110-121
- 91-100-048 kit for 50-115-021 & 50-115-121
- 91-100-017 kit for 50-115-022 & 50-115-122
- 91-100-074 kit for 50-120-021
- 91-100-058 kit for 50-125-021 & 50-125-121

For further assistance, please contact your local Pickering sales office.

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Pickering Interfaces maintains a commitment to continuous product development, consequently we reserve the right to vary from the description given in this data sheet.

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We buy equipment

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