General description

The PCE-1611 board is used to conditioning TTL/HC signals of the TEDIA DAQ PC card digital ports to external equipments with technological signal levels and contains eight output channels and one 8-bit DIO port without conditioning.

The output channels are solved by individually isolated switching relays.

All channels work as non-inverting; the presence of the "H" level at the PC card output activates the signal switch.

For eight pass-through signals (ie. one 8-bit DIO port), the PCE-1611 board performs the function of adapter the PC card connector to the D-Sub 9 connector located on the mounting bracket. The board does not provide any conditioning to these signals.

General instructions for use

The PCE-1611 may be used only according to the manufacturer's recommendations given in this manual or other general standards and only such a way, that its failure caused by any reason will not be dangerous to any person or property.

Installation

The PCE-1611 is designed to be placed into a free slot for expansion cards, the length of the ribbon cables requires a position adjacent to the control PC card.

The board can be used in an environment with operating temperature -10~60 °C and relative humidity up to 90%, noncondensing and normal levels of pollution.

Specifications

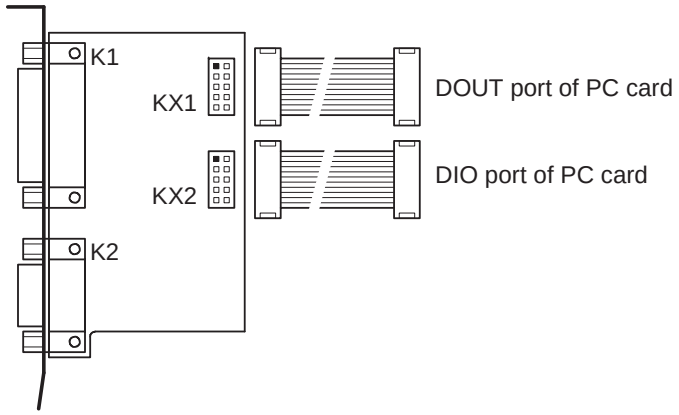
Digital outputs:

switching voltage:	30 V_{DC} max. 100 V_{AC} max.	
switching current:	500 mA max.	
signal delay:	< 5 ms	
isolation voltage:	200 V_{DC}/V_{AC} 100 V_{DC}/V_{AC}	(outputs against the PC card port) (relay contacts to each other)

General:

recommended cable length:	max. 10 m max. 2 m	(isolated outputs) (nonisolated PC card port)
dimensions of board:	approx. 93 x 60 mm	
power supply:	5 V	(powered from PC card port)
current consumption:	max. 350 mA	

Note: Values marked as "RMS" indicate the effective AC value with the frequency 50Hz.



KX1/KX2 connectors pin assigment
identical to the pin assigment of DIO port connectors (refer to the PC card manual)

K1 connector pin assigment (D-Sub 25, male), controlled by KX1 signals			
DOUT00_RL0_NO (relay contact)	C1		
DOUT00_RL0_NC (relay contact)	C2	C14	DOUT00_RL0_CM (relay contact)
DOUT01_RL1_CM (relay contact)	C3	C15	DOUT01_RL1_NO (relay contact)
DOUT02_RL2_NO (relay contact)	C4	C16	DOUT01_RL1_NC (relay contact)
DOUT02_RL2_NC (relay contact)	C5	C17	DOUT02_RL2_CM (relay contact)
DOUT03_RL3_CM (relay contact)	C6	C18	DOUT03_RL3_NO (relay contact)
DOUT04_RL4_NO (relay contact)	C7	C19	DOUT03_RL3_NC (relay contact)
DOUT04_RL4_NC (relay contact)	C8	C20	DOUT04_RL4_CM (relay contact)
DOUT05_RL5_CM (relay contact)	C9	C21	DOUT05_RL5_NO (relay contact)
DOUT06_RL6_NO (relay contact)	C10	C22	DOUT05_RL5_NC (relay contact)
DOUT06_RL6_NC (relay contact)	C11	C23	DOUT06_RL6_CM (relay contact)
DOUT07_RL7_CM (relay contact)	C12	C24	DOUT07_RL7_NO (relay contact)
- - -	C13	C25	DOUT07_RL7_NC (relay contact)

K2 connector pin assigment (D-Sub 9, male), connected to KX2 signals			
DIO0 (I/O signal of card DIO port)	C1		
DIO2 (I/O signal of card DIO port)	C2	C6	DIO1 (signal of card DIO port)
DIO4 (I/O signal of card DIO port)	C3	C7	DIO3 (I/O signal of card DIO port)
DIO6 (I/O signal of card DIO port)	C4	C8	DIO5 (I/O signal of card DIO port)
GND (computer GND)	C5	C9	DIO7 (I/O signal of card DIO port)

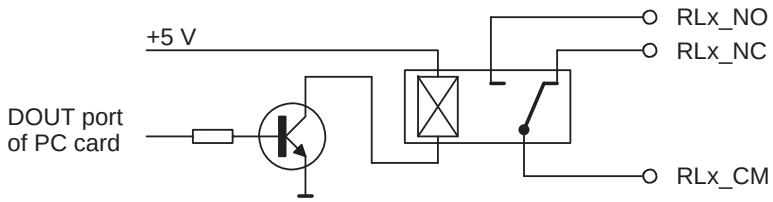


Fig. 1. Simplified schematic of relay outputs (one channel out of eight).

PCE-1611

User Guide

(further information available at http://www.tedia.eu)

Manufacturing, sales office, service center and technical support:

address: TEDIA spol. s r. o.
Zabelska 12, 31200 Plzen, Czech Republic
phone/e-mail: https://www.tedia.eu/contacts