

## General description

The PCE-1604 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 sixteen output channels organized into two blocks of eight channels.

The output channels are solved by semiconductor switches protected by TVS diodes against induced overvoltage and polarity reversal.

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

## General instructions for use

The PCE-1604 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-1604 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.

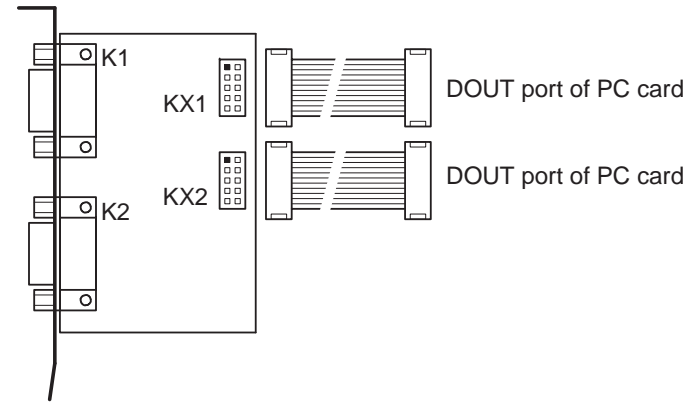
## Specifications

### Digital outputs:

switching voltage:	32 V <sub>DC</sub> max.	
switching current:	500 mA max.	
switch overload:	1 A	(max. 100 ms; max. 1x in 10 s)
drop voltage:	< 1.5 V	(1.1~1.4 V typically)
signal delay:	< 0.2 ms	
isolation voltage:	1000 V <sub>DC</sub>	(outputs against the PC card port)

### General:

recommended cable length:	10 m max.	(isolated outputs)
dimensions of board:	80 x 60 mm approx.	
power supply:	5 V	(powered from PC card port)
current consumption:	80 mA max.	



### KX1/KX2 connectors pin assignment

identical to the pin assignment of DIO port connectors (refer to the PC card manual)

### K1 connector pin assignment (D-Sub 9, male), controlled by KX1 signals

DOUT00 (output signal, channel 0)	C1	C6	DOUT01 (output signal, channel 1)
DOUT02 (output signal, channel 2)	C2	C7	DOUT03 (output signal, channel 3)
DOUT04 (output signal, channel 4)	C3	C8	DOUT05 (output signal, channel 5)
DOUT06 (output signal, channel 6)	C4	C9	DOUT07 (output signal, channel 7)
I_PWR0 (DOUT common signal)	C5		

Note: The I\_PWR0 signal is intended for the outputs supply voltage (typically +24 V).

### K2 connector pin assignment (D-Sub 9, male), controlled by KX2 signals

DOUT10 (output signal, channel 0)	C1	C6	DOUT11 (output signal, channel 1)
DOUT12 (output signal, channel 2)	C2	C7	DOUT13 (output signal, channel 3)
DOUT14 (output signal, channel 4)	C3	C8	DOUT15 (output signal, channel 5)
DOUT16 (output signal, channel 6)	C4	C9	DOUT17 (output signal, channel 7)
I_PWR1 (DOUT common signal)	C5		

Note: The I\_PWR1 signal is intended for the outputs supply voltage (typically +24 V).

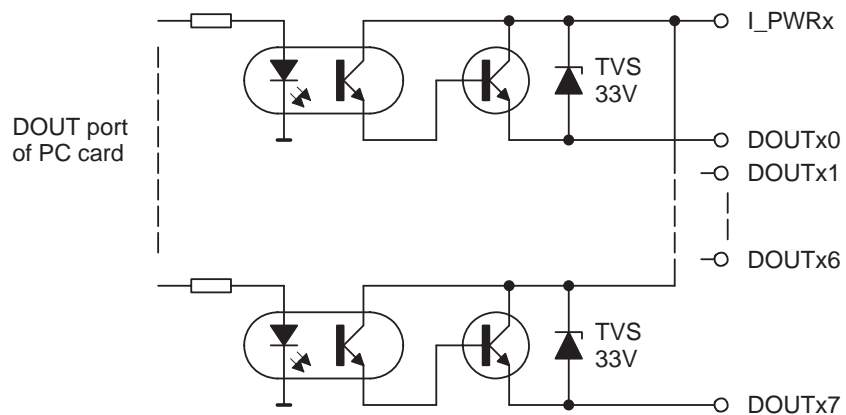


Fig. 1. Simplified schematic of isolated outputs.  
 The PCE-1604 contains sixteen output channels organized into two blocks of eight channels.

# PCE-1604

## User Guide

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

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