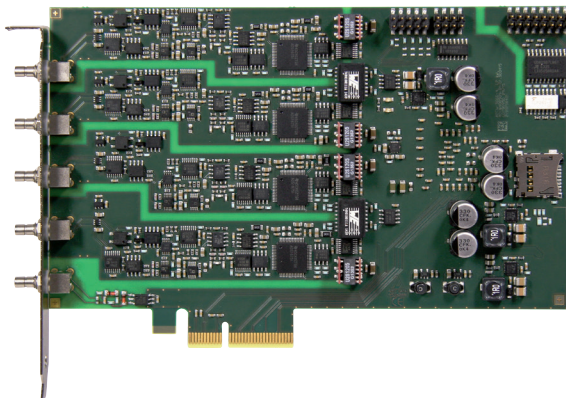


# Analog noise and vibration measurement board, optically isolated, 4 analog inputs, 24-bit, for PCI Express

PCI  
EXPRESS®



## APCLe-3660-4

4 SE/diff. (+/-) inputs, simultaneous acquisition

Sampling frequency of up to 4 MHz

± 10 V, ± 1 V

IEPE sensor supply (4 mA to 26 V)

4 digital inputs, 4 digital outputs, 24 V



### Features

- 4-lane PCI Express board
- Extended operating temperature range: -20 °C to +85 °C

### Analog inputs

- 4 SE or diff. (+/-) inputs (via SMB connector)
- 1 A/D converter per channel: Simultaneous acquisition at all analog inputs
- Sampling frequency: 125 kHz, 250 kHz, 500 kHz, 1 MHz, 2 MHz, 4 MHz
- 24-bit resolution (sampling frequencies of 2 MHz and 4 MHz: 23-bit resolution)
- Input range: ± 10 V, ± 1 V
- Coupling: AC, DC, GND (programmable for each channel)
- Overvoltage protection
- Optical isolation between analog channels and from the PC (1000 V)
- Anti-aliasing filters as integrated digital filters, cut-off frequency changes according to sampling frequency, automatic adjustment to Nyquist frequency
- Analog filters with fixed cut-off frequency (3 MHz)
- 1 current source per channel for IEPE sensor supply (4 mA to 26 V)
- 24 V trigger input (via SMB connector)

### Digital I/O

- 4 digital inputs, 24 V, optically isolated
- 4 digital outputs, 24 V, optically isolated

### Input modes

- Simple mode:  
Reads single analog value

- Cyclic mode (auto stop):  
Starts analog acquisition through software, stops acquisition when configured number of values has been reached, analog values are available in software buffer
- Cyclic mode (ring buffer):  
Starts analog acquisition through software, continuous acquisition until software stop, analog values are available in software buffer
- Gate logic:  
Each digital input controls the acquisition of the corresponding analog input (digital input 0 -> analog input 0, digital input 1 -> analog input 1, etc.) via rising edges (from 0 to 1: acquisition is started) and falling edges (from 1 to 0: acquisition is stopped). The data of the respective analog input is stored in a temporary buffer on the board before it is transferred to the PC.

### Software

#### Standard drivers for:

- Linux
- Signed 32-/64-bit drivers for Windows 10 and 7
- Real-time use under Linux and Windows on request

#### Samples for the following compilers:

- C#.NET, C

Driver download: <https://drivers.addi-data.com>

Windows  
64/32-bit drivers



## Ordering information

### APCLe-3660-4

Noise and vibration measurement board, optically isolated, 4 analog inputs, 24-bit, 4 current sources, anti-aliasing filter, for PCI Express.  
Incl. technical description and software drivers.

### Versions

**APCLe-3660-4:** 4 analog inputs,  
4 current sources for the connection of IEPE sensors,  
4 digital inputs, 4 digital outputs

### Accessories

**FB3000:** Ribbon cable to connect the digital I/O at separate slot bracket, 30 cm  
**ST3601:** Connection cable, 2 m, coaxial SMB female connector to BNC male connector