

## High Speed Multi-Function A/D

### AD12-16U(PCI)EH



API-PAC(W32) included [API Function Library]

- \*1: When operating temperature is close to 0°C or 50°C (operating extremes) the non-linearity error may increase. A ±0.1% LSB non-linearity error (max) is possible.
- \*2: When using a signal source with a high-speed built-in operational amplifier.
- \*3: If an external device requires the board to supply +5VDC from the CN1 or CN2 connectors, the power consumption of the board will be larger.
- \*4: Optional PCB15P cable is required for use of FTP-15 terminal panel.
- \*5: Requires use of optional cable PCB37PS-P.
- \*6: Requires use of optional cables DT/E2 and PCB15P.

#### SPECIFICATIONS

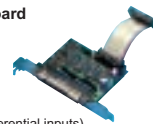
Input channels	16 single-ended, 8 differential
Output channels	1
Resolution	12bit
Analog Input	
Range	±10V, ±5V, ±2.5V, 0~+10V, 0~+5V
Gain	-
Conversion Speed	1μ sec/ch (Max.)
Nonlinearity error *1*2	±3LSB
Impedance	1MΩ or more
Analog Output	
Range	±10V, ± 5V, 0~+10V
Rating	±5mA
Conversion Speed	6μ sec/ch (max)
Nonlinearity error *1*2	±1/2LSB
Impedance	1Ω or less
Isolation	-
Digital I/O	Common I/O: 4 TTL input, 4 TTL output channels (TTL Positive Logic)
Interrupts	One interrupt request signal as INTA
I/O address	Any 32-byte boundary
Power Consumption *3	5VDC 1200mA (max)

#### FEATURES

- 1μsec/ch(1MHz) A/D conversion speed
- 16MB data buffer memory (FIFO or ring buffer) enables sampling to be executed independently of the processing power of the PC.
- 1 analog output, 4 TTL digital inputs, 4 TTL digital outputs and one i8254-compatible counter
- Basic function is compatible with AD12-16U(PC)E

PCI Bus / Dimensions (mm)	32bit, 33MHz, 5V / 176.41(L) x 106.68(H)
Connector	CN1(AIO): 37-pin female D-type CN2(DIO): 16-pin Header
Options	
Software	ACX-PAC(W32)BP
Accessories	DTP-3(PC), DTP-4(PC), ATP-16 *5, FTP-15 *6 EPD-37A *5, EPD-37 *5, ATSS-16 *5, ATII-8A *5 ATLF-8 *5, ATUH-16(PCI)
Cables / Connectors	PCA37P-1.5, PCA37PS-0.5P/1.5P, PCB37PS-0.5P/1.5P, PCA15P-1.5, PCB15P-1.5 *4, PCC16PS, PCD8PS, DT/E1, DT/E2, CN5-D37M

#### 16ch Multiplexer Sub-Board ATUH-16(PCI)



(Adds 16 single-ended or 8 differential inputs)

## 16-bit High Speed Multi-Function A/D

### AD16-16U(PCI)EH



API-PAC(W32) included [API Function Library]

- \*1: When operating temperature is close to 0°C or 50°C (operating extremes) the non-linearity error may increase. A ±0.1% LSB non-linearity error (max) is possible.
- \*2: When using the non-isolated bipolar ±5V or non-isolated unipolar ~+5V errors approximately 0.02% of the maximum range value can occur.
- \*3: If an external device requires the board to supply +5VDC from the CN1 or CN2 connectors, the power consumption of the board will be larger.
- \*4: Optional PCB15P cable is required for use of FTP-15 terminal panel.
- \*5: Requires use of optional cable PCB37PS-P.
- \*6: Requires use of optional cables DT/E2 and PCB15P.
- \*7: When using a signal source with a high-speed built-in operational amplifier.

#### SPECIFICATIONS

Input channels	16 single-ended, 8 differential
Output channels	1
Resolution	16bit
Analog Input	
Range	±10V, ±5V, 0~+10V, 0~+5V
Gain	-
Conversion Speed	1μ sec/ch (Max.)
Nonlinearity error *1*2	±5LSB
Impedance	1MΩ or more
Analog Output	
Range	±10V, 0~+10V
Rating	±5mA
Conversion Speed	10μsec/ch (Max.)
Nonlinearity error *1*2	±3LSB
Impedance	1Ω or less
Isolation	-
Digital I/O	Common I/O: 4 TTL input, 4 TTL output channels (TTL Positive Logic)
Interrupts	One interrupt request signal as INTA
I/O address	Any 32-byte boundary
Power Consumption *3	+5VDC 1400mA (max)

#### FEATURES

- Equipped with a high-speed, high precision converter that performs A/D conversion at 1 microsecond per channel (max) with a 16-bit resolution
- 16MB data buffer memory (FIFO or ring buffer) enables sampling to be executed independently of the processing power of the PC.
- 1 analog output, 4 TTL digital inputs, 4 TTL digital output channels, and one i8254-compatible counter

PCI Bus / Dimensions (mm)	32bit, 33MHz, 5V / 176.41(L) x 106.68(H)
Connector	CN1(AIO): 37-pin female D-type CN2(DIO): 16-pin Header
Options	
Software	ACX-PAC(W32)BP
Accessories	DTP-3(PC), DTP-4(PC), ATP-16 *5, FTP-15 *6 EPD-37A *5, EPD-37 *5, ATSS-16 *5, ATII-8A *5 ATLF-8 *5, ATUH-16(PCI)
Cables / Connectors	PCA37P-1.5, PCA37PS-0.5P/1.5P, PCB37PS-0.5P/1.5P, PCA15P-1.5, PCB15P-1.5 *4, PCC16PS, PCD8PS, DT/E1, DT/E2, CN5-D37M

#### 16ch Multiplexer Sub-Board ATUH-16(PCI)



(Adds 16 single-ended or 8 differential inputs)