

Analog I/O

Low-cost Multi-function L series

PCI Express

50-pin Mini-Ribbon Analog Input Analog Output Digital I/O Counter L series High Precision Memory on Board

Windows Driver Linux Driver C-LOGGER MATLAB LabVIEW

Bus Isolated 16-bit Analog Output

AO-1604LI-PE

NEW

- Isolation between PC signal and external analog / digital signals
- The start/end of sampling can be performed by software command, Input data comparison or and external TTL-level Input
- 1K data buffer memory (FIFO or RING buffer)
- Can set the output voltage to 0V at power-on forcibly
- Functions, Connector pin and Signal assignment is compatible with the PCI-compliant board DA16-4(LPCI)L



PCI Express

Low Profile 50-pin Mini-Ribbon Analog Input Analog Output Digital I/O Counter L series High Precision Memory on Board

Windows Driver Linux Driver C-LOGGER MATLAB LabVIEW

100KSPS 16-bit Analog Output

AO-1608L-LPE

NEW

- The start/end of sampling can be performed by software command, Input data comparison or and external TTL-level Input
- 1K data buffer memory (FIFO or RING buffer)
- Functions, Connector pin and Signal assignment is compatible with the PCI-compliant board DA16-8(LPCI)L
- Low Profile PCI - compliant (includes bracket for use in standard PCI slot)



PCI Express

Low Profile 50-pin Mini-Ribbon Analog Input Analog Output Digital I/O Counter L series High Precision Memory on Board

Windows Driver Linux Driver C-LOGGER MATLAB LabVIEW

100KSPS 16-bit Analog Output

AO-1616L-LPE

NEW

- The start/end of sampling can be performed by software command, Input data comparison or and external TTL-level Input
- 1K data buffer memory (FIFO or RING buffer)
- Functions, Connector pin and Signal assignment is compatible with the PCI-compliant board DA16-16(LPCI)L
- Low Profile PCI - compliant (includes bracket for use in standard PCI slot)



Model	AO-1604LI-PE	AO-1608L-LPE	AO-1616L-LPE
Channels	-	-	-
Range	-	-	-
Impedance	-	-	-
Resolution	-	-	-
Conversion Speed	-	-	-
Conversion Accuracy ¹⁾	-	-	-
Buffer Memory	-	-	-
Analog Input	4ch	8ch	16ch
Channels	4ch	8ch	16ch
Range	Bipolar: ±10V		
Impedance	1Ω or less		
Resolution	16bit		
Conversion Speed	10μsec (Max.)		
Conversion Accuracy	±5LSB		
Buffer Memory	1K word		
Digital I/O	Input 4 Non-isolated TTL-level input (positive logic) Output 4 Non-isolated TTL-level output (positive logic)		
Counter	Channels 1ch Counting 32-bit Up count Max. count 32-bit (binary data)		
Interrupts	1 level		
I/O Address	Occupies 64 ports		
Power Consumption (Max.)	3.3VDC 1150mA	3.3VDC 240mA, 12VDC 300mA	3.3VDC 280mA, 12VDC 380mA
Bus / Dimensions (mm)	PCI Express Base Specification Rev.1.0a x1 / 169.33(L)×110.18(H)	PCI Express Base Specification Rev.1.0a x1 / 121.69(L)×67.90(H)	
Connector	10250-52A2JL [3M] or equivalent		
Options	Software ACX-PAC(W32) Accessories EPD-50A ¹⁾²⁾ , DICT-50S ¹⁾ , DICT-50F ¹⁾		
Notes	GPCB50PS(PCB50PS)-0.5P/1.5P, PCA50PS-0.5P/1.5P		

As shown on the side of product's images, RoHS Compliant is a CONTEC original marking for RoHS-compliant products.

Analog I/O

Intelligent E series

PCI

37-pin D-SUB Analog Input Analog Output Digital I/O Counter E series High Speed Memory on Board

Windows Driver Linux Driver C-LOGGER LabVIEW MATLAB

1MS/s 12bit Multi-function Analog I/O

GAD12-16U(PCI)EV [AD12-16U(PCI)EV]

- A variety of accessories can extend functions
- The start/end of sampling can be performed by software command, Input data comparison or external TTL-level Input
- Features software-based calibration function



PCI

37-pin D-SUB Analog Input Analog Output Digital I/O Counter E series High Precision High Speed Memory on Board

Windows Driver Linux Driver C-LOGGER LabVIEW MATLAB

1MS/s 16bit Multi-function Analog I/O

GAD16-16U(PCI)EV [AD16-16U(PCI)EV]

- A variety of accessories can extend functions
- The start/end of sampling can be performed by software command, Input data comparison or external TTL-level Input
- Features software-based calibration function



PCI

37-pin D-SUB Analog Input Analog Output Digital I/O Counter E series Memory on Board

Windows Driver Linux Driver C-LOGGER LabVIEW MATLAB

100kS/s 12bit Multi-function Analog I/O

GAD12-16(PCI)EV [AD12-16(PCI)EV]

- A variety of accessories can extend functions
- The start/end of sampling can be performed by software command, Input data comparison or external TTL-level Input
- Features software-based calibration function



PCI

37-pin D-SUB Analog Input Analog Output Digital I/O Counter E series High Speed Memory on Board

Windows Driver Linux Driver C-LOGGER LabVIEW MATLAB

100kS/s 16bit Multi-function Analog I/O

GAD16-16(PCI)EV [AD16-16(PCI)EV]

- A variety of accessories can extend functions
- The start/end of sampling can be performed by software command, Input data comparison or external TTL-level Input
- Features software-based calibration function



Model	GAD12-16U(PCI)EV	GAD16-16U(PCI)EV	GAD12-16(PCI)EV	GAD16-16(PCI)EV
Input channels	16 single-ended, 8 differential (Supports up to 32 single-ended, 16 differential input with channel multiplexer sub board)			
Output channels	1ch			
Resolution	12bit		16bit	
Range	±10V, ±5V, 0→+5V, 0→+10V (jumper selectable)		±10V, ±5V, 0→+10V, 0→+5V (jumper selectable)	
Gain	-		×1, ×2, ×4, ×8	
Analog Input Conversion Speed	1μsec/ch (Max.)		10μsec/ch (Max.)	
Conversion Accuracy ⁶⁾	±3LSB ¹⁾		±5LSB ¹⁾⁴⁾	
Impedance	1MΩ or more			
Range	±10V, ±5V, 0→+10V (jumper selectable)		±10V, ±5V, 0→+10V	
Rating	±5mA			
Analog Output Conversion Speed	6μsec (Max.)		10μsec (Max.)	
Conversion Accuracy	±1/2LSB ¹⁾		±3LSB ¹⁾	
Impedance	1Ω or less			
Trigger	Software command, Input data comparison or External TTL-level Input			
Isolation type	-			
Timer	-			
Digital I/O	4 Non-isolated TTL-level input (Common use or counter input is jumper selectable), 4 Non-isolated TTL-level output (Common use or counter output is jumper selectable)			
Interrupts	1 level			
I/O Address	Occupies 32 ports			
Power Consumption (Max.)	5VDC 1000mA			
Bus / Dimensions (mm)	PCI (32bit, 33MHz, 5V or 3.3V ⁵⁾ / 176.41(L)×105.68(H)			
Connector	CN1(AIO): 37pin female D-type Screw Lock #4-40UNC, DCLC-J37SAF-20L9E [JAE] or equivalent, CN2(DIO): 16pin box header connector, PS-16SEN-D4P1-C [JAE] or equivalent			
Options	Accessories DTP-3A ³⁾ , DTP-4A ³⁾ , ATP-16E ³⁾ , ATBA-16E ³⁾ , FTP-15 ³⁾ , EPD-37A ³⁾⁴⁾ , EPD-37 ³⁾ , ATSS-16A ³⁾⁴⁾ , ATII-8A ³⁾ , ATCH-16A(PCI) ¹⁾¹⁾ , ATUH-16A(PCI) ¹⁾²⁾ , DICT-37S ¹⁾ , DICT-37F ¹⁾ Cables / Connectors PCA37P-1.5, PCB37P-1.5, PCA37PS-0.5P/1.5P, PCB37PS-0.5P/1.5P, PCC16PS-1.5/3, PCDB8PS-1.5/3, PCA15P*9, PCB15P*9*10, DTE/E1, DTE/E2, CNS-D37M			
Notes	¹⁾ : If operating temperature becomes close to 0°C or 50°C, ±0.1% LSB non-linearity error may occur. ²⁾ : When using a signal source with a high-speed built-in operational amplifier. ³⁾ : An error of about 0.02% of the maximum range value may occur when ±5V bipolar or 0→+5V unipolar input was selected. ⁴⁾ : The power consumption of the board will exceed if an external device requires supplying of +5VDC from the CN1 or CN2 connectors. ⁵⁾ : Requires optional cable PCB37P*9. (0.5m is recommended). ⁶⁾ : Requires optional cables DTE-E3 and PCB15P ⁷⁾ : The screw-up terminal block is used, whose screw does not falling off. ⁸⁾ : External power supply is required. ⁹⁾ : Requires optional cables DTE/E2 ¹⁰⁾ : PCB15P is a cable for FTP-15 terminal panel. ¹¹⁾ : Only for GAD16-16(PCI)EV, GAD12-16(PCI)EV ¹²⁾ : Only for GAD16-16U(PCI)EV, GAD12-16U(PCI)EV.			

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