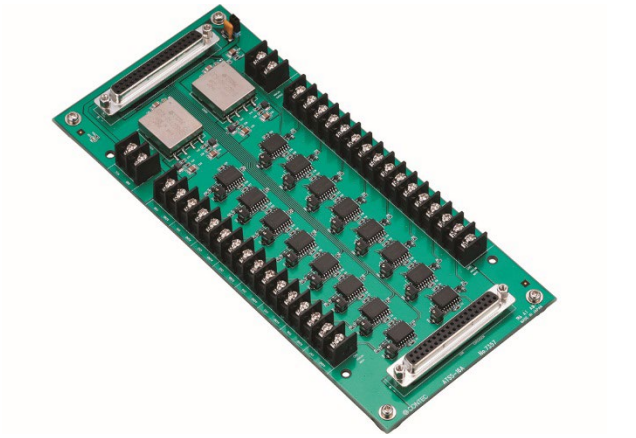
Simultaneous Sample & Hold
Accessory for Analog Input

ATSS-16A



This product is an accessory board that provides simultaneous sampling function for the Analog G/E series boards.

*The contents in this document are subject to change without notice.

*Visit the CONTEC website to check the latest details

*The information in the data sheets is as of January, 2025.

* Specifications, color and design of the products are subject to change without notice.

Features

Simultaneous Sampling

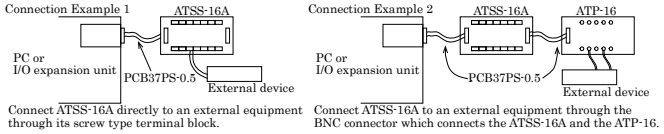
This product has 16 sample/hold amplifiers. These sample/hold amplifiers hold analog input signals simultaneously on 16 channels. The signals are captured when the amplifiers receive a control signal from the analog G/E series board. This product samples signals on 16 channels simultaneous.

Easy connection with an external signal according to the M3 terminal block

This product has terminal blocks (M3 screw type) for connecting analog input signals. It also has terminals (M3 screw type) for connecting analog output signals from analog G/E series board. These terminal blocks enable easy wire connection to the external equipment. Furthermore, there is an extension connector, which enables the connection with an optional BNC connector terminal (ATP-16) etc.

Others

- Easy to connect with the analog G/E series board through an optional calbe (PCB37PS-0.5P).
- Either PC power (via CN1) or an external power source can be used to supply power to this product.
- This product can be installed on the DIN rail using the optional DIN rail installation adapter (DIN-ADP1).



About The Analog G/E Series

This manual uses the generic term "analog G/E series" to represent the following 16 products.

Board for PCI Express

AIO-163202UG-PE, AIO-163202G-PE, AIO-123202UG-PE, AIO-123202G-PE, AIO-121601E3-PE, AIO-161601E3-PE, AIO-121601UE3-PE, AIO-161601UE3-PE

Board for PCI

AD12-16(PCI)EV, AD16-16(PCI)EV, AD12-16U(PCI)EV, AD16-16U(PCI)EV,

AD12-16(PCI)E, AD16-16(PCI)E, AD12-16U(PCI)EH, AD16-16U(PCI)EH

Specifications

Basic Specifications

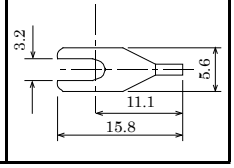
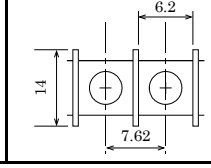
Parameter	Specification
Input range	Unisolated -10V - +10V
Number of input channels	16ch
Accuracy *1	±0.025% of FSR
Current consumption (Max.)	1600mA
Operating conditions	Temperature : 0 - 50□C Humidity : 10 - 90%RH (No condensation)
External dimensions (mm)	105(W) x 230 (D) x 25.5 (H)
Weight	350g
Supported board	Board for PCI Express AIO-163202UG-PE, AIO-163202G-PE, AIO-123202UG-PE, AIO-123202G-PE, AIO-121601E3-PE, AIO-161601E3-PE, AIO-121601UE3-PE, AIO-161601UE3-PE Board for PCI AD12-16(PCI)EV, AD16-16(PCI)EV, AD12-16U(PCI)EV, AD16-16U(PCI)EV, AD12-16(PCI)E, AD16-16(PCI)E, AD12-16U(PCI)EH, AD16-16U(PCI)EH

*1 : For ambient temperatures of 0□C, 50□C, a full scale range error of 0.1% may occur. The error can be minimized by adjusting the board at the temperature at which it is to be used.

Sample/hold Amp.

Parameter	Specification
Acquisition time	1.5µsec
Settling time	350nsec
Aperture time	25nsec
Aperture uncertainty	0.3nsec
Output Droop rate	0.5µV/µsec
Input Impedance	1MΩ or more (when power is on)
Output Impedance	1Ω or more (when power is on)

Terminal (CN2 - CN5) Specifications

Used terminal	ML-40S1BYF [mfd. by Sato Parts] equivalent	Compatible Y pin	C3A [mfd. by J.S.T.] equivalent
Pin screw	M3	Y pin dimension [mm]	
Terminal block dimension [mm]			

Interface Connector (CN1, CN6) Specifications

Used connector	37-pin D-SUB connector [F (female) type] DC-37ST-N [mfd. by JAE] equivalent
Lock nut	Screw size #4-40UNC GM-25HU [mfd. by HONDA] equivalent
Compatible connector	37-pin D-SUB connector [M (male) type] (DCSP-JB37PF [mfd. by JAE] equivalent), (17JE-23370-02(D8C) [mfd. by JEI] equivalent), etc

Packing List

Accessory Board [ATSS-16A] ...1
User's Manual (this booklet) ...1

Cable & Connector (Option)

Shielded Cable with Two 37-pin D-SUB Connectors (Mold Type)
: PCB37PS-0.5P (0.5m), PCB37PS-1.5P (1.5m)

Accessories (Option)

Termination Panel with BNC connectors for Analog I/O Boards
: ATP-16E *1

General Purpose Terminal : DTP-3C *1

Screw Terminal : DTP-4C *1

Screw Terminal (M3 x 37P) : EPD-37A *1

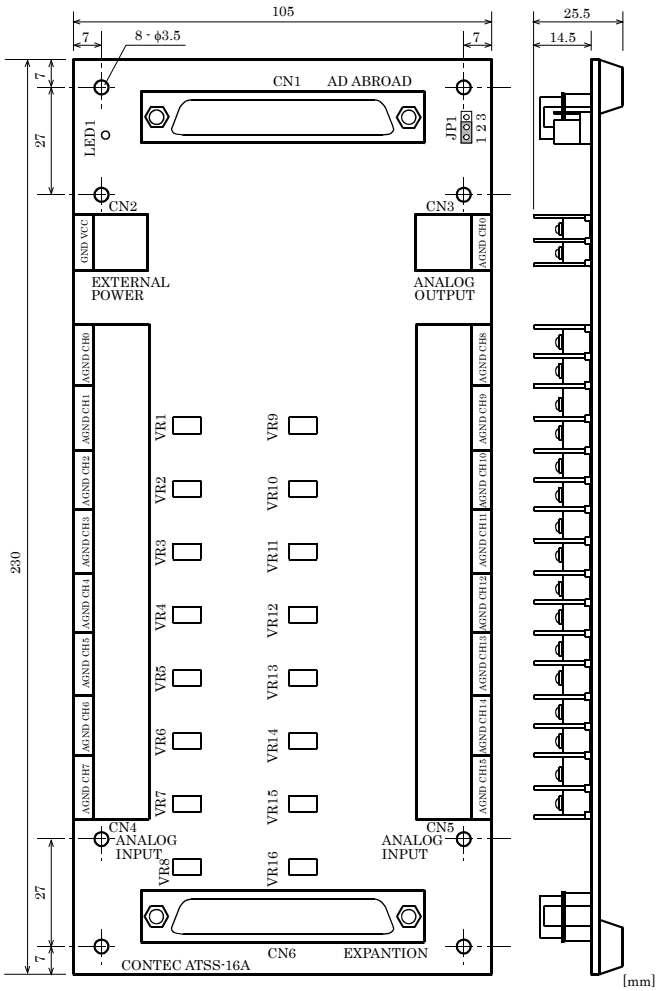
Screw Terminal (M3.5 x 37P) : EPD-37 *1

DIN rail adapter : DIN-ADP1

*1 PCB37PS optional cable is required separately.

* Check the CONTEC's Web site for more information on these options.

External dimensions



Differences between ATSS-16 and ATSS-16A

The ATSS-16A is not upper compatible with the ATSS-16. The ATSS-16A is different in specification, depending on the board number as listed below. The differences in specification are listed below.

Parameter	ATSS-16 Specification	ATSS-16A Specification*1 [Board No.: No.7357]	ATSS-16A Specification*2 [Board No.: No.7357A]
Accuracy (For ambient temperatures of 0°C, 50°C)	0.5%	0.1%	0.1%
Current consumption (Max.)	+5VDC 1500mA	+5VDC 1600mA	+5VDC 1600mA
External power supply requirement	+5V - +6VDC	+5V - +9VDC	+5V - +9VDC
AGND and GND signals connection	The AGND and GND signals are connected to the board internally.	The AGND and GND signals are not connected to the board internally.	The AGND and GND signals are connected to the board internally.

*1: It is a specification of the board that has been described at the right of board name. [ATSS-16A] as "No.7357"

*2: It is a specification of the board that has been described at the right of board name. [ATSS-16A] as "No.7357A"