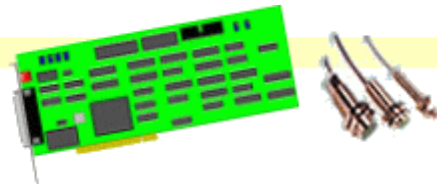


## ISA AD/DA CARD



**ADVANCE  
A/D-D/A DIGITAL I/O CARD**

### Introduction

The advance A/D-D/A digital I/O card (called advance card) is a high precision data conversion/acquisition system for PC/XT, PC/AT, PC/386, or compatibles. It contains two digital to analog channels with unipolar or bipolar format, eight differential analog to digital channels or sixteen single end analog to digital channels conversion with unipolar or bipolar format, and two digital I/O channels with 8 bits line for each channel.

### The features of the advance card are:

#### D/A:

- Resolution:  
12 bits.
- Output Channel:  
two. (one standard, one optional)
- Output Voltage Setting:  
unipolar or bipolar selectable.
  1. unipolar output: 0V to 10V.
  2. bipolar output: -10V to 10V
- Conversion time:  
lusec.
- Accuracy:
  1. linearity error:  
+/- 0.25LSB
  2. differential linearity error:  
+/- 0.5LSB
  3. quantizing error:  
+/- 0.5LSB

#### A/D:

- Resolution:  
12 bits.
- Number of channels:  
16 or 8.
- Input Type:
  1. single end mode - 16 channels.
  2. differential mode - 8 channels.
- Maximum Throughput:  
25KHZ.









- Input Voltage Range:  
unipolar or bipolar selectable.
  1. unipolar input: 0V to 10V.
  2. bipolar input: -10V to 10V.
- Conversion Time:  
40usec.
- Channel Acquisition Time:  
2usec.
- Accuracy:
  1. nonlinearity:  
+/- 1LSB.
  2. differential nonlinearity:  
+/- 1LSB.

**Two digital I/O channels.**

**I/O port address selectable.**

## Hardware Configurations

Before you use the advance card, you must ensure that the port address and jumper are set correctly, the proper settings for the advance card are described in the following:

- ➔ [I/O Port Address](#) 
- ➔ [I/O Address Specification](#) 
- ➔ [Pin Assignment](#) 
- ➔ [Unipolar/Bipolar Selection](#) 
- ➔ [Single end and Differential Mode Select](#) 
- ➔ [Jumper Setting](#) 
- ➔ [VR Full Scalar Adjustment](#) 
- ➔ [Hardware Installation](#) 

## Software Configuratons

- ➔ [Check List](#) 
- ➔ [Operating Software](#) 
- ➔ [Programming Techniques Under MS/DOS](#) 

## Fullscalar Adjustments

Before getting start, you must ensure the full scalar voltage are adjusted to satisfy the computer power.

### D/A Voltage Adjustment







1. Short JP4-2 and JP4-3

2. Run ADJU.EXE to select D/A voltage adjustment.
3. Measure output voltage:  
Pin 15 and Pin 24 for D/A channel 1.  
Pin 2 and Pin 24 for D/A channel 2.
4. Adjust VR1 (for D/A channel 1) until output voltage is equal to 10V.  
Adjust VR2 (for D/A channel 2) until output voltage is equal to 10V.

### A/D Voltage Adjustment

1. Short JP4-2 and JP4-3.
2. Short JP6-1 and JP6-2.
3. Short JP7-2 and JP7-3 for unipolar.
4. Input voltage to A/D channel by power source.
5. Run ADJU.EXE to select A/D voltage adjustment.
6. Adjust VR5 until digital output is 4095.

We note that, if you use bipolar, please adjust VR3 and VR4 by yourself.

- [Catalog](#) 
- [Manual](#) 
- [Converter](#) 
- [Schematic](#) 
- [Drive Driver](#) 
- [Test Tool & Sample Code](#) 
- [Measurement & Applications](#) 