ISA Analog Output Board

A-626/A-628

6 & 8-channel 12-bit analog output board



A-626

A-628



Functional Description

The A-626 and A-628 are 12-bit analog output boards with 16-channel digital input and 16-channel digital output. The A-626 and A-628 boards support both current and voltage output. The output channels can be jumper-selectable for different voltage range $\pm\,10\text{V},\,\pm\,5\text{V},\,0\text{~-}5\text{V},\,0\text{~-}10\text{V}.$ It can also sink 4~20 mA current loop when connected to an external voltage source. On-board BB Ref- 01 chip is used for solving the thermo-drifting problem of the reference voltage. A-626 is much better than other products on the market for long period operation. On-board lattice FPGA increases the stability.

Applications

- Servo control
- Programmable voltage source
- Programmable current sink
- Product testing

Specifications

Analog Output

- Number of channels: 6 (A-626); 8(A-628)
- Resolution: 12-bit
- Type: AD 7541 or equivalent
- ullet Differential linearity: \pm 1/2 LSB max over temperature
- Settling time: less than 65 μ s Temperature drift: 5ppm / °C max
- Relative accuracy: ± 1 LSB max
- \bullet Voltage output range: 0~5V, 0~10V, \pm 5V, \pm 10V
- Output driving capability: 5 mA max
- Current output range: 4~20 mA
- Current loop exciting voltage: 8V ~ 35V
- Reference voltage: Internal -5V or -10V

External +10V or -10V max

Features

- 6 or 8 analog output channels
- 12-bit resolution
- 0~5V, 0~10V, \pm 5V, \pm 10V output ranges
- 4-20 mA current loop capability, sink to ground
- On-board reference -5V, -10V
- External reference ±10V (max.) AC or DC
- IRQ level from IRQ 3-IRQ 15
- 16-channel digital input and 16-channel digital output
- 16 TTL-level input
- Input low Vil = 0.8 Vmax; IIL =-0.4 mA max
- Input high VIH = 2.0 Vmin; IIH = $20 \,\mu$ A max
- 16 TTL-level Output
- Output low Vol = 0.5 Vmax; @lol = 8 mA max
- Output high VoH = 2.7 Vmin; @IoH= -400 µ A max

General Specifications

- I/O connector: one 37-pin D-Sub female two 20-pin ribbon male
- Power requirements:

Power	Typical A-626/A-628	Maximal A-626/A-628
+5V	450/500 mA	900/1100 mA
+12V	50/60 mA	110/130 mA
-12V	14/15 mA	90/105 mA

- Operating temperature: 0 ~ 60°C
- Operating humidity: 0 ~ 90% non-condensing
- Storage temperature: -20 ~ 70°C
- Dimensions:184 mm x 123 mm (A-626); 198 mm x 123 mm (A-628)

Ordering Information

Standard

A-626: 6-channel 12-bit analog output board

A-626/S: A-626 with DN-37

A-628: 8-channel 12-bit analog output board

A-628/S: A-628 with DN-37

Optional

DIN-rail mounting terminal board DN-37: DB-37: Directly connection terminal board DB-16P: 16-channel isolated digital input board DB-16R: 16-channel SPDT relay board DIN-rail mounting terminal board DN-20:

ADP-20: 20-pin extender