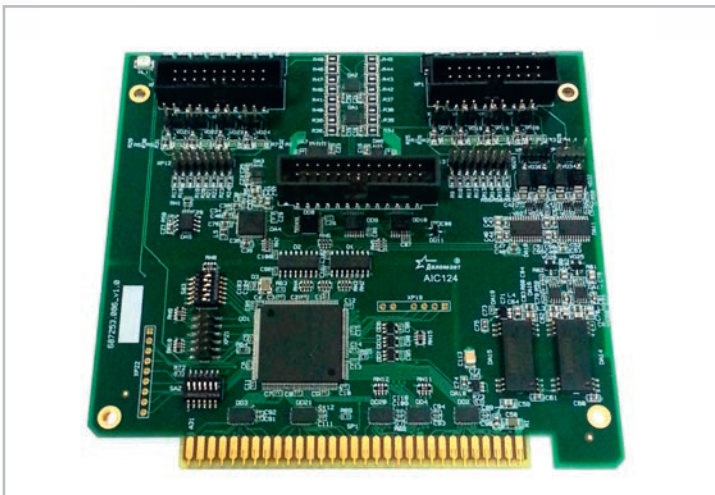


# AIC124

## Analog I/O Module



### Features

- 16x single-wire or 8x differential channels;
- 8x channel digital output port: CMOS levels; Group galvanic isolation;
- Maximum voltage between module channels and ISA bus: 500 V DC;
- MTBF: 180 000 hours;
- Dimensions: 125×123×27 mm;
- Vibration resistance: 5g;
- Single shock resistance: 100g;
- Multiple shock resistance: 50g;
- Operating temperature range: from –40° C to +85° C.

### Overview

AIC124 Analog I/O Module in MicroPC format is designed for conversion of 16x analog signals of DC voltage or direct current into additional 14x bit code, as well as for generation of output analog signals of DC voltage and direct current.

### Technical Specification

#### Interface

- The amount of analog I/O channels with the group galvanic isolation and maximum conversion speed for N channels 100000 readouts/ (with N) and 14 bit analog-to-digital converter;
- 16x single wire or 8x differential channels;
- Input resistance of analog input channels in voltage measurement mode:
  - 2x mega ohm.
- Installation of input resistance of analog input channels in voltage measurement mode equal to 100 kOhm при помощи by the use of switches;
- Input resistance of analog input channels in current measurement mode:
  - 125 Ohm.
- Number of single-wire analog output channels with the group galvanic isolation:
  - 2.
- Load resistance of analog output channels of DC voltage:
  - 2 kOhm.

- 8x channel digital output port:
  - CMOS levels;
  - Group galvanic isolation;
- Connection of analog switching units of AIMUX-32/AC, MUX-16 type, in order to increase in the number of analog input channels;
- Maximal voltage between module channels and ISA bus:
  - 500 V DC.
- LED indication of I/O queries from CPU module.
- Generation of interrupt signal switching on IRQ3...IRQ7 line along with the possibility of joint use with several modules, installed into the enclosure in MicroPC form-factor.
- Generation of query for data exchange in the Direct Memory Access (DMA) mode using the following lines:
  - DRQ1/DACK1, DRQ3/DACK3.

#### Mechanical

- MTBF: 180 000 hours;
- Dimensions: 125 x 123 x 27 mm;

- Vibration resistance: 5g;
- Single shock resistance: 100g;
- Multiple shock resistance: 50g.

#### Environmental

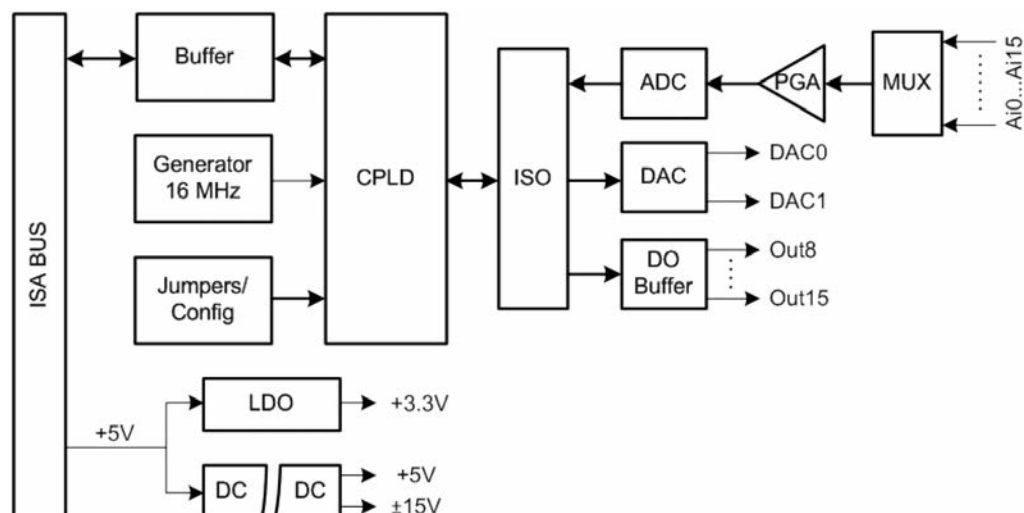
- Operating temperature range: from –40°C to + 85°C.



# AIC124

## Analog I/O Module

### Block Diagram



### Ordering Information

#### AIC124 Configuration

##### AIC124 - 01 \Option

###### Versions

- |           |   |
|-----------|---|
| AIC124-01 | 16x input channels. 2x output channels (voltage). Amplification factors 1,2,4,8 |
| AIC124-02 | 16x input channels. 2x output channels (current). Amplification factors 1,2,4,8 |

###### Options

- \Conformal coating

#### Delivery checklist:

1. AIC124 Analog I/O Module
2. Package

### Corporate Offices

**FASTWEL GROUP Co. Ltd**  
 108 Profsoyuznaya str.  
 Moscow, Russia 117437  
 Tel: +7 (495) 232-1681  
 Fax: +7 (495) 232-1654  
 E-mail: info@fastwel.com  
 Web: www.fastwel.com

**FASTWEL Corporation US**  
 Fastwel Corporation US  
 6108 Avenida Encinas,  
 Suite B, Carlsbad,  
 CA 92011.  
 Phone: 858-488-3663  
 E-mail: info@fastwel.com

**MICRO**



Ver.1.11.2014

Product specifications are subject to change without notice