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Find the *Acromag IP236-8* at our website: ***Click HERE***

Acromag
THE LEADER IN INDUSTRIAL I/O

IP236
16-bit D/A
Analog Output
with FIFO Buffers



The IP236 is ideal for generating waveforms. Large FIFO buffers reduce CPU interactions for increased overall performance.

IP236 modules have 16-bit D/A converters (DAC) to provide highly-accurate analog voltage outputs. FIFO buffers enhance control over the transfer of data to the DAC and improve efficiency.

Each channel has a dedicated 128 sample FIFO buffer and its own clock. A start trigger transfers digital values from the buffer to the DAC. Three modes offer several choices for the data transfer on each channel. Continuous mode cycles data through the buffer for a given channel and is ideal for waveform generation. As new data loads into the FIFO, the output signal instantly updates without stopping the waveform. Single mode moves one value from the buffer to the converter for each trigger. External trigger mode synchronizes channel conversions to an event or other IP236 modules.

Features

- 4 or 8 (IP236-4/8) analog voltage outputs
- Individual 16-bit D/A converter on each channel
- Individual clock on each channel supporting rates of up to 100KHz
- FIFO memory buffers (128 samples/channel)
- Software, external, or internal timer triggers
- Interrupt capability
- External trigger output
- Extended temperature option (-40 to 85°C)

Benefits

- FIFO buffers enable "on-the-fly" changes to the output waveform as new data is received.
- Internally-stored calibration coefficients ensure accuracy.
- Independent control of each channel enables individual updates and unique conversion rates.

Specifications

Analog Outputs

Output configuration: 4 (IP236-4/4E) or 8 (IP236-8/8E).

D/A Resolution: 16 bits.

Output ranges: ±5V, ±10V, 0 to 10V (jumper-selectable).

Data sample memory: 128 sample FIFO buffer on each channel.

Maximum throughput rate:
Outputs can be updated simultaneously or individually.
One channel: 100KHz (10µS/conversion)
Four channels (IP236-4): 100KHz (10µS/4 ch)
Eight channels (IP236-8): 100KHz (10µS/8 ch).

DAC programming: Independent. Input registers and FIFOs are directly loaded.

System accuracy: 0.0061% of 20V span maximum corrected error (i.e. calibrated) at 25°C with the output unloaded.

Output at reset: 0V for bipolar output, 5V for unipolar.

Output current: -5 to +5mA (maximum).

Short circuit protection: Indefinite at 25°C.

IP Compliance (ANSI/VITA 4)

Meets IP specifications per ANSI/VITA 4-1995.

IP data transfer cycle types supported:
Input/output (IOSel*), ID read (IDSel*), Interrupt select (INTsel*).

Access Times (8MHz clock):
All functions: 0 wait states (250nS cycle) except
FIFO buffer write: 2 wait state (500nS cycle),
Interrupt read/write: 2 wait states (250nS cycle).

Environmental

Operating temperature: 0 to 70°C (IP236-4/8) or -40 to 85°C (IP236-4E/8E models).

Storage temperature: -55 to 125°C (all models).

Relative humidity: 5 to 95% non-condensing

Power:
+5V (±5%): 250mA maximum..
±12V (±5%) from P1: 210mA maximum.

MTBF: Consult factory.

Ordering Information

Industry Pack Modules

IP236-4
Four voltage output channels.

IP236-4E
Same as IP236-4 plus extended temperature range.

IP236-8
Eight voltage output channels.

IP236-8E
Same as IP236-8 plus extended temperature range.

Acromag offers a wide selection of Industry Pack Carrier Cards.

Software *(see software documentation for details)*

IPSW-API-VXW
VxWorks® software support package

IPSW-API-QNX
QNX® software support package

IPSW-API-WIN
Windows® DLL driver software support package

IPSW-LINUX
Linux™ support (website download only)

See accessories documentation for additional information.

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