MIC-1842

12-Bit, 20MS/s/Ch, 8-Ch DAQ Platform with Intel® Core™ i5 Processer

NEW

DAQNavi ⒸCC FC CE RoHS COMPLIANT 2002/95/EC

Features

- 8 x Simultaneously Analog Inputs, up to 20 MS/s, 12-bit resolution
- Supports digital and analog triggers
- 32-ch TTL digital I/O
- Onboard FIFO memory (16 K samples)
- 1 x RS-232 ports
- 2 x 10/100/1000 Base-T RJ-45 LAN ports
- 4 x USB3.1 ports

Introduction

MIC-1842 is a high performance DAQ platform featuring an integrated DAQ module and signal conditioning to provide high speed analog input, TTL digital I/O, and triggering functions. This application ready system also supports high speed networking and serial communication ports to enable seamless integration and rapid system development.

Specifications

Analog Input

- **Channels**   8-ch (MIC-1842-U6A1)
- **Resolution**   12 bits
- **Sample Rate**   Up to 20MS/s simultaneously
- **Trigger Reference**   Digital and analog triggers
- **Trigger Mode**   Start, Delayed Start Stop, Delayed Stop
- **FIFO Size**   16K samples
- **Overvoltage Protection**   30 Vp-p
- **Input Impedance**   50 or 1 MΩ, selected by jumper
- **Input Range**   Software programmable

Bipolar	±5	±2.5	±1	±0.5
Gain Error (%FSR)	0.1	0.1	0.2	0.4
System Noise (LSB)	3	4	7	8

TTL Digital Input/Output

Channels	32 (shared), 5V/TTL compatible	
Input Voltage	Low	0.8 V max.
	High	2 V min.
Output Voltage	Low	0.8 V max.@ +15mA (sink)
	High	2 V min.@ -15mA (source)
Input Load	100KΩ pull-down resistor connect to DGND	

General

- **Dimensions (W x H x D)** 200mm x 180mm x 61mm ((7.87" x 7.09" x 2.4")
- **Power Consumption**   Typ.: 25W @ 24V, Max.: 35W @ 24V
- **Power Requirements**   10 ~ 36 V_{DC}
- **Weight**   2 kg (typical)
- **OS Support**   Windows / Linux

System Hardware

- **CPU**   Intel® Core™ i5-8365UE processor, 4.1 GHz (MIC-1842-U6A1)
- **Memory**   8GB DDR4-2400 (Max. 32GB expansion available)
- **Indicators**   LEDs for Power, IDE and LAN (Active, Status)
- **USB**   4 x USB 3.1 ports
- **Storage**   1 x 2.5" HDD/SSD, installation subject to ordered configuration
- **Expansion**   1 x M.2 E-Key, 1 x M.2 B-Key
- **Display**   HDMI x1, DP x1

Environment

- **Storage Humidity**   5 ~ 95% RH, non-condensing
- **Operating Temperature**   -10 ~ 60 °C (14 ~140 °F) @ 5 ~ 85% RH with 0.7m/s air flow
- **Storage Temperature**   -20 ~ 80 °C (-4 ~ 176 °F)

Ordering Information

- **MIC-1842-U6A1**   12-bit, 20MS/s, 8-ch AI platform with Intel® Core™ i5-8365UE processor

Optional Accessories

- **1960099348N001**   Table mount (220 x 156 mm)
- **PSD-A60W24**   DIN Rail AC to DC 100-240V 60W 24V

* Supported by request; please contact Advantech if this is needed.

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All product specifications are subject to change without notice.   Last updated: 24-Sep-2025