

UEI-817 Digital I/O Boards



Features

- Drop-in replacement for Analog Devices RTI-817
- Three 8-bit ports
- Each port can be independently configured as input or output
- External/internal data latch for each port
- IRQ on digital input change for Port 0
- Read-back feature for the output
- Digital input change auto-latch for Port 0
- Occupies one ISA slot

General Description

The UEI-817 is a 24-channel digital I/O board that plugs into an ISA slot. The board can be used with TTL low-level input/output circuitry or with solid-state relay subsystems (16- or 24-channel versions) to provide 4000V isolation for interfacing with high-level AC and DC signals.

The 24-channel capability of the UEI-817 is divided into three ports (or groups) with 8 bits per group. These 8-bit ports can be configured for either a digital input or output function.

Typical applications of the UEI-817 include sensing and control of high-level signals, sensing low-level (TTL) switches or signals, driving indicator lights or controlling recorders, and parallel data transfer (via software) to computers or panel meters.

Port2/DIO7	1	49	DGND
Port2/DIO6	3	50	DGND
Port2/DIO5	5	51	DGND
Port2/DIO4	7	52	DGND
Port2/DIO3	9	53	DGND
Port2/DIO2	11	54	DGND
Port2/DIO1	13	55	DGND
Port2/DIO0	15	56	DGND
Port1/DIO7	17	57	DGND
Port1/DIO6	19	58	DGND
Port1/DIO5	21	59	DGND
Port1/DIO4	23	60	DGND
Port1/DIO3	25	61	DGND
Port1/DIO2	27	62	DGND
Port1/DIO1	29	63	DGND
Port1/DIO0	31	64	DGND
Port0/DIO7	33	65	DGND
Port0/DIO6	35	66	DGND
Port0/DIO5	37	67	DGND
Port0/DIO4	39	68	DGND
Port0/DIO3	41	69	DGND
Port0/DIO2	43	70	DGND
Port0/DIO1	45	71	DGND
Port0/DIO0	47	72	DGND
+5V DC	49	73	DGND

UEI-817 J1 connector

Technical Specifications

Parameter	Result
Number of digital I/O channels	24, selectable in 8-bit ports as inputs or outputs (output polarity is inverted for solid-state relay compatibility)
I/O type	TTL
Input Signal Levels	$I_{IL} = -10 \mu\text{A max}$ $I_{IH} = 10 \mu\text{A max}$ $V_{IL} = 0.8 \text{ V max}$ $V_{IH} = 2.0 \text{ V min}$
Output Signal Levels	$I_{OL} = 24 \text{ mA max}$ $I_{OH} = -3.2 \text{ mA max}$ $V_{OL} = 0.5 \text{ V max}$ $V_{OH} = 2.4 \text{ V min}$ 3.6V typ; 4.6V max
Max Input Voltage	7V
Static Discharge Voltage	2000V
Output Supply Current	250 mA
Setup Time	10 ns
Hold Time	10 ns
External Latch Pulse	10 ns
Base Address	4 consecutive byte addresses in the I/O address space, DIP selectable
DIO J1 Connector	50-pin male IDC header
Dimensions	4.2 x 3.63"
Operating Temperature Range	0–70°C
Storage Temperature Range	-25–85°C
Relative Humidity	0–90% (non-condensing)
Power Consumption	+5V DC 0.5A
J1 +5V power fuse	250 mA poly-switch resettable fuse

Ordering Information

UEI-817.....	24-channel digital I/O
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