

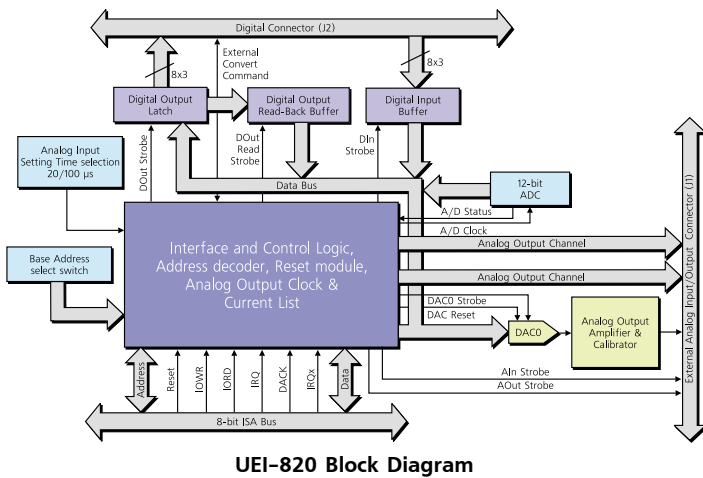
# UEI-820 ISA Multifunction Boards



## General Description

A drop-in replacement for Analog Devices RTI-820 the UEI-820 is an analog and digital I/O board that plugs into an ISA slot. Used with a wide range of I/O panels, the board accepts a variety of signals with up to 64 analog input channels, 16 analog output channels, and 24 channels of digital I/O accommodated in a single PC slot. The UEI-820 provides 12-bit A/D and D/A resolution, acquisition rates up to 19 kHz, and wide variety of signal conditioning options for either isolated or nonisolated I/O.

The UEI-820 contains one 12-bit A/D converter and one 12-bit D/A converter that provide one channel of analog output, respectively. Multiple channels are accommodated with the interface panels by multiplexing several input and output channels into the single I/O lines of UEI-820 through the J1 connector.



UEI-820 Block Diagram

DIO7 PORT2	1	2	DGND
DIO6 PORT2	3	4	DGND
DIO5 PORT2	5	6	DGND
DIO4 PORT2	7	8	DGND
DIO3 PORT2	9	10	DGND
DIO3 PORT2	11	12	DGND
DIO1 PORT2	13	14	DGND
DIO0 PORT2	15	16	DGND
DIO7 PORT1	17	18	DGND
DIO6 PORT1	19	20	DGND
DIO5 PORT1	21	22	DGND
DIO4 PORT1	23	24	DGND
DIO3 PORT1	25	26	DGND
DIO2 PORT1	27	28	DGND
DIO1 PORT1	29	30	DGND
DIO0 PORT1	31	32	DGND
DIO7 PORT0	33	34	DGND
DIO6 PORT0	35	36	DGND
DIO5 PORT0	37	38	DGND
DIO4 PORT0	39	40	DGND
DIO3 PORT0	41	42	DGND
DIO2 PORT0	43	44	DGND
DIO1 PORT0	45	46	DGND
DIO0 PORT0	47	48	DGND
	49	50	DGND
			+5V

VREAD (AIN)	1	2	I/O COM
VWRITE (AIN)	3	4	I/O COM
I/O COM	5	6	I/O COM
READ ADDRESS A	7	8	READ ADDRESS B
READ ADDRESS C	9	10	READ ADDRESS D
READ ADDRESS E	11	12	READ ADDRESS F
WRITE ADDRESS A	13	14	WRITE ADDRESS B
WRITE ADDRESS C	15	16	WRITE ADDRESS D
WRITE ADDRESS E	17	18	WRITE ADDRESS F
WRITE ENABLE	19	20	WRITE ENABLE
+5V	21	22	N/C
+5V	23	24	+5V
DGND	25	26	DGND

UEI-820 Analog Output Connector (J1)

UEI-820 Digital I/O Connector (J2)

## Technical Specifications

Analog Input	
Number of channels	Up to 64* (*depends on interface panel used)
Resolution	12 bits
A/D Converter Time	30 ms typ
System Throughput	19 kHz max
Accuracy	±0.025% (±1 LSB)
Analog Output	
Number of Channels	Up to 64*
Resolution	12 bits
Update Rate	400 Hz each channel
Accuracy	±0.025% (±1 LSB)

Digital I/O	
Number of channels	24
Signal levels	Inverted TTL V <sub>OL</sub> 0.4V max I <sub>OL</sub> 24 mA max
General	
Operating temperature	0°C to +70°C
Relative humidity	Up to 90%
Power consumption	+5V @ 650 mA +12V @ 25 mA -12V @ 40 mA

## Ordering Information

UEI-820 .....8-channel analog output, 12-bit resolution