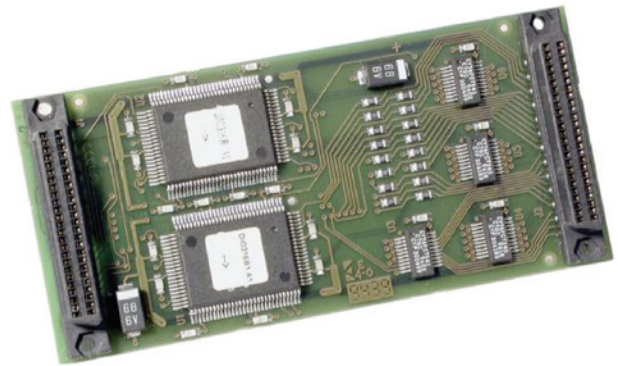


I/O Solutions

IP Modules – Digital I/O

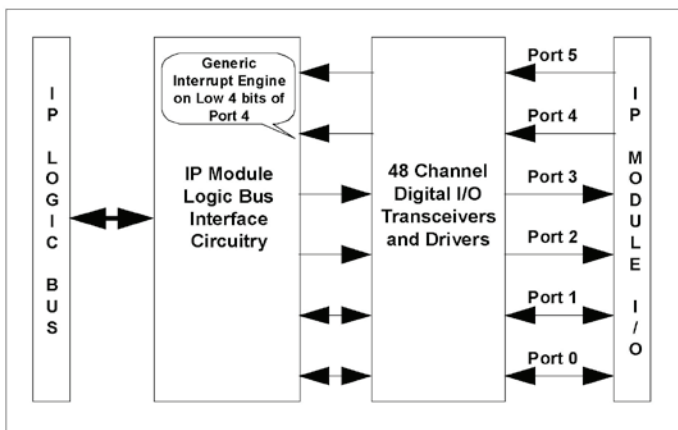
DIO316I – Tristateable, 48-Channel, Digital I/O IP Module

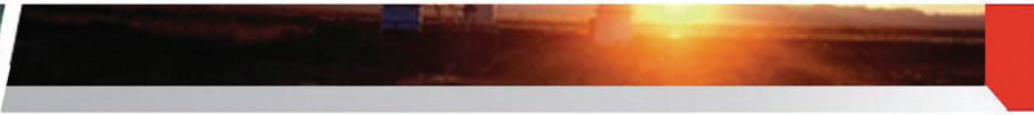
The DIO316I provides 48 lines of digital inputs and outputs including 16 bits of digital input, 16 bits of output and 16 bi-directional bits. With four individually configurable interrupts, it is ideal for responding to changes in input signals without continually polling the inputs. Its modular design provides up to 80 bits of digital input, 80 bits of output and 80 bi-directional bits, for a total of 240 I/O points in a single VME slot using the VMESC5 carrier. Up to 288 I/O points are possible through a single PC slot using the ISASC6 carrier. The DIO316I can also be mixed with other IP Modules for a more customized, modular I/O system solution.



Application Features

- Hard drive capability without adding an external buffer in most applications.
- Direct Pin Out provides peripheral compatibility to industry standard interface modules.
- Bi-directional inputs/outputs afford you the flexibility to customize the I/O to fit your needs. The outputs are easily changed via software.
- Four independent interrupt engines act as event triggers which allow you to control I/O activity; thus providing for versatile system-level support.
- Output ports are tristateable for custom busing applications.





Specifications

- Physical Dimensions: 1.800" x 3.900" x 0.303" (45.72 mm x 99.06 mm x 7.70 mm)
- Weight: 0.944 oz. (26.76 grams)
- Hardware Compatibility: American National Standard for IP Modules (ANSI/VITA 4-1995)
- Mechanical/Electrical Interface: Singlewide IP Module
- IP Transfer Types: (memory not supported)
 - I/O: 16-bit writes, 16-bit reads; No wait states, hold states supported
 - ID: 8-bit read only; No wait states, hold states supported
 - INT: 8-bit vector read only; No wait states, hold states supported
- Electrical Requirements: +5 Vdc @ 130 mA (typ., no load)
- Operating Temperature: 0° to +70° C (32° to +158° F)
- Storage Temperature: -40° to +85° C (-40° to +185° F)
- Humidity (non-condensing): 5% to 95%
- Operating Vibration: 10 G's RMS, 20-2000 Hz random
- Operating Shock: 50 G's max.
- Operating Altitude: 10,000 ft.
- MTBF: 3,805,175 hrs. per MIL-HDBK-217F
- Port Drivers: TTL Compatible
 - Source Rating: -15 mA
 - Sink Rating: 64 mA
 - High-impedance Leakage Currents: $\pm 1\mu\text{A}$
 - Input Current: $\pm 1\mu\text{A}$ (@ 10 pf max.)
- Interrupt Support:
 - Maskable Interrupts on: Rising Edges, Falling Edges, High-Level, Low-Level, and On-Change
 - Single Interrupt Request: (Level 0) with 8-bit Vector Support
 - RORA-Type ISR Support
 - Low nibble of Port 4

Ordering Information

BHAS-DIO316I: 48 Channel Tristateable Digital IP Board

DIO316I PIN ASSIGNMENTS

50	GND	45	Port 5 Bit 3	40	Port 4 Bit 0	35	Port 4 Bit 5	30	Port 3 Bit 2	25	Port 3 Bit 7	20	Port 2 Bit 4	15	Port 1 Bit 1	10	Port 1 Bit 6	5	Port 0 Bit 3
49	Not Used	44	Port 5 Bit 4	39	Port 4 Bit 1	34	Port 4 Bit 6	29	Port 3 Bit 3	24	Port 2 Bit 0	19	Port 2 Bit 5	14	Port 1 Bit 2	9	Port 1 Bit 7	4	Port 0 Bit 4
48	Port 5 Bit 0	43	Port 5 Bit 5	38	Port 4 Bit 2	33	Port 4 Bit 7	28	Port 3 Bit 4	23	Port 2 Bit 1	18	Port 2 Bit 6	13	Port 1 Bit 3	8	Port 0 Bit 0	3	Port 0 Bit 5
47	Port 5 Bit 1	42	Port 5 Bit 6	37	Port 4 Bit 3	32	Port 3 Bit 0	27	Port 3 Bit 5	22	Port 2 Bit 2	17	Port 2 Bit 7	12	Port 1 Bit 4	7	Port 0 Bit 1	2	Port 0 Bit 6
46	Port 5 Bit 2	41	Port 5 Bit 7	36	Port 4 Bit 4	31	Port 3 Bit 1	26	Port 3 Bit 6	21	Port 2 Bit 3	16	Port 1 Bit 0	11	Port 1 Bit 5	6	Port 0 Bit 2	1	Port 0 Bit 7



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