• 6510 W. 91st Ave • Westminster CO 80031 • USA   * PH: 303-430-1500 * FAX 303-412-2050

• Embedded rugged computers
• –40° to 85° C
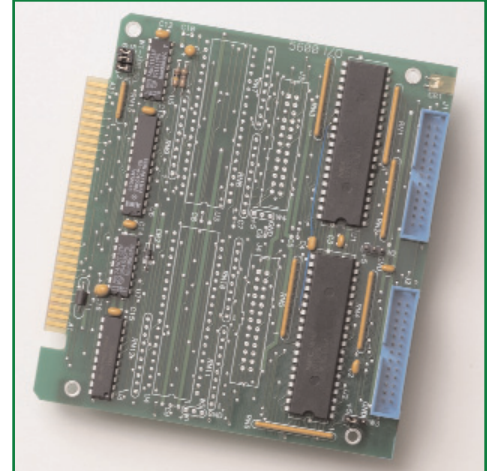• Embedded operating systems
• COTS—high reliability

Digital I/O expansion card for Micro PC

The 5600 is a low–power Micro PC expansion card that provides 48 or 96 channels of digital I/O. All channels are TTL compatible, and are implemented with selected 82C55 chips. These lines will interface with logic devices, switch inputs, LEDs, and industry–standard opto module racks. The lines are grouped into six or twelve ports of eight lines each. For the 5600–48, four of those ports can be programmed as inputs or outputs on a port–wide basis. Two of the ports can be pro-grammed as four lines of inputs and four lines of outputs each. These numbers are doubled for the 5600–96.

Octagon has a variety of opto modules and termination boards for easy access for field wiring. Use isolator modules when driving or receiving signals from high voltage and/or high current devices. Opto–isolation also eliminates ground loops and significantly reduces the chance that noise will invade the system.

Micro PC cards plug into any ISA expansion slot or Micro PC card cage. The Octagon family of Micro PC controllers, expansion cards, and card cages provide a complete solution for applications in transportation, security, military, communications, distributed control, point–of–sale, ticketing machines, weighing equipment, and other similar applications.

The 5600 will withstand high shock and vibration, and operates in temperature ranges from –40° to +85° C. This rugged expansion card will provide years of reli-able service in the most challenging environments.

Octagon products are designed and manufactured under the supervision of an ISO 9001–2000 certified quality management system.

Features

DIGITAL I/O:

◆ 48 or 96 lines of TTL level digital I/O (5600–48 or 5600–96)

◆ Input low: –0.3V to +0.8V

◆ Input high: 2V to Vcc

◆ Output low: 0.4V maximum

◆ Output high: 2.4V minimum

◆ In output mode, can sink 2.5 mA at 0.4V and can source over 2.5 mA at 2.4V

◆ When driving opto modules, the output can sink 15 mA at 1.0V

◆ Jumper blocks pull all lines per connector (24 lines) high or low with a 10KΩ resistor

◆ All 96 lines may be nonlatched inputs or latched outputs.

◆ Up to 64 lines may be latched inputs.

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CONNECTORS:

◆ Two or four male 26–position, straight I/O connectors

◆ Mates with Octagon CMA–26 cable, for direct connection to opto modules or termination blocks

◆ On–board LED to show when a connector is accessed

BASE ADDRESS:

◆ Jumper–selectable base addresses of 100h, 110h, 120h, 130h, 140h, 150h, 160h, or 170h.

ENVIRONMENTAL & POWER:

◆ –40° to 85° C operating

◆ –50° to 85° C nonoperating

◆ 5% to 95%, RH, noncondensing)

◆ 40g shock, 5g vibration, 3 axis

◆ Size: 4.5" x 4.9", Micro PC form factor

◆ Power: 5V ± 5% at 35 mA typical, 75 mA maximum

ORDERING INFORMATION

#3336   5600–48 digital I/O card

#2536   5600–96 digital I/O card

Typical configurations

The illustration shows typical configurations for the 5600 using an interface board, a keypad, an LCD display, an STB terminal block, and an opto rack. Octagon offers a wide variety of cables and interfaces for digital I/O products.

MPB Opto Rack

CMA–26–24 Ribbon Cable

Digital I/O Port

LCD–IFB

CMA–26–24
Ribbon Cable

5600 I/O
Expansion
Card

R1   P1
J3   J6
J5   J4 J7
J1   J2

CMA–26–24 Ribbon Cable

J2

J1

TB–26

Display Ribbon Cable
(J6 or J7)

To LCD–IFB
Backlighting

LCD–Series Displays

16–Key, KP–Series Keypad
(such as KP–1, KP–2–16, or KP–3)

NOTE: Only one keypad can be
        installed on the IFB.

24–Key or larger , KP–Series Keypad
(such as KP–2–24 or KP–2–32)