

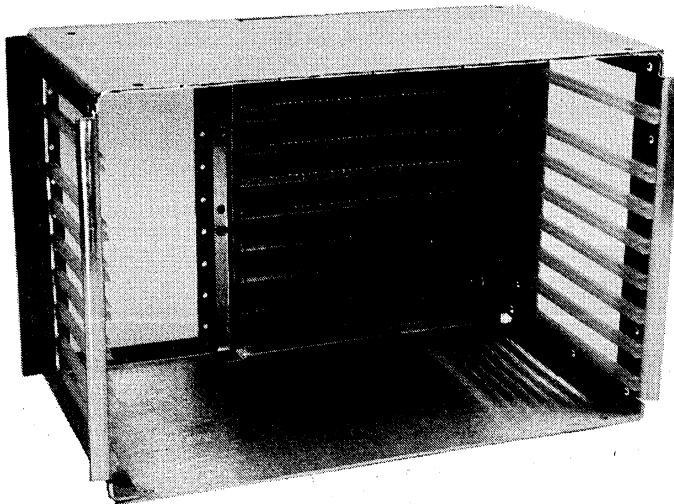


iSBC® 608/618 CARDCAGES

- Houses Eight MULTIBUS® iSBC® Boards in an Aluminum Package
- Board-to-Board Clearance for iSBC® MULTIMODULE™ Boards on All Slots
- Board-to-Board Clearance for iSBX™ MULTIMODULE™ Boards on Two Slots
- Parallel Priority Circuitry for up to Eight Multimaster iSBC® Boards
- Enhanced Bus Noise Immunity for High Speed Systems
- Plug on iSBC 618 Unit for up to Sixteen Board Systems
- NEMA-Type Backwall or 19-Inch Rack Mount Hardware Included
- Signal Line Termination Circuitry on iSBC® 608 Cardcage

Intel's iSBC 608/618 Cardcages are matched to the latest generation of iSBC/iSBX boards which mount in the MULTIBUS system bus. These products provide several features which make them the industry's leading price/performance cardcage product. MULTIMODULE board clearance, parallel priority circuitry, enhanced backplane noise immunity, and precision fit card guides are a few of the distinctions which make this the industry's better product.

The iSBC 608 Cardcage is the base unit, housing up to eight iSBC boards and their MULTIMODULE boards. Additionally, this base unit includes mounting hardware and fan mounting bracketry. The iSBC 618 is the expansion unit, providing eight additional iSBC board slots to the iSBC 608 Cardcage for a total of sixteen board slots which can be NEMA-type backwall or 19-inch rack mounted. This is accomplished with the mounting hardware of the iSBC 608 Cardcage. The iSBC 618 expansion unit also includes fan mounting bracketry.



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FUNCTIONAL DESCRIPTION

Mechanical Aspects

The iSBC 608/618 Cardcages provide housing and a MULTIBUS system bus for up to sixteen single board computers and their MULTIMODULE boards. The iSBC 608 unit and iSBC 618 unit offer board-to-board clearance (0.8 inches or greater) on all eight slots for iSBC MULTIMODULE boards. Two slots provide clearance (1.2 inches or greater) for iSBX MULTIMODULE boards as shown in Figure 1. Each cardcage includes precision fitted nylon cardguides for secure board fit and accurate MULTIBUS board pin alignment. Fan mounting bracketry is also included with each cardcage. This bracketry allows the mounting of several industry standard fans. The iSBC 608 Cardcage base unit includes aluminum mounting hardware for NEMA-type backwall mounting, or anchoring a sixteen slot iSBC 608/618 combination in a standard 19-inch rack.

Electrical Aspects

The iSBC 608/618 Cardcages implement a parallel priority resolution scheme by using plug-in jumper

connections. There are six different priority schemes allowed, each requiring a different jumper configuration. In systems where an iSBC 618 Cardcage is attached to the base unit, the base unit will have lower priority overall. That is, master boards in the iSBC 608 base unit bay gain control of the MULTIBUS lines only when no boards in the iSBC 618 expansion unit are asserting the bus request (BREQ/) signal.

Noise-minimizing ground traces are strategically interleaved between signal and address lines on these backplanes. This provides the enhanced noise immunity and minimized signal-to-signal coupling which is important in high speed, high board count microcomputer systems.

The iSBC 608/618 Cardcages provide power connector lug bolts for +5 VDC and ground. The lug bolts, compared to other power connection methods, help transfer higher amounts of current. Other voltages (± 12 VDC, -5 VDC) are connected via a mating power connector plug as shown in Figure 2.

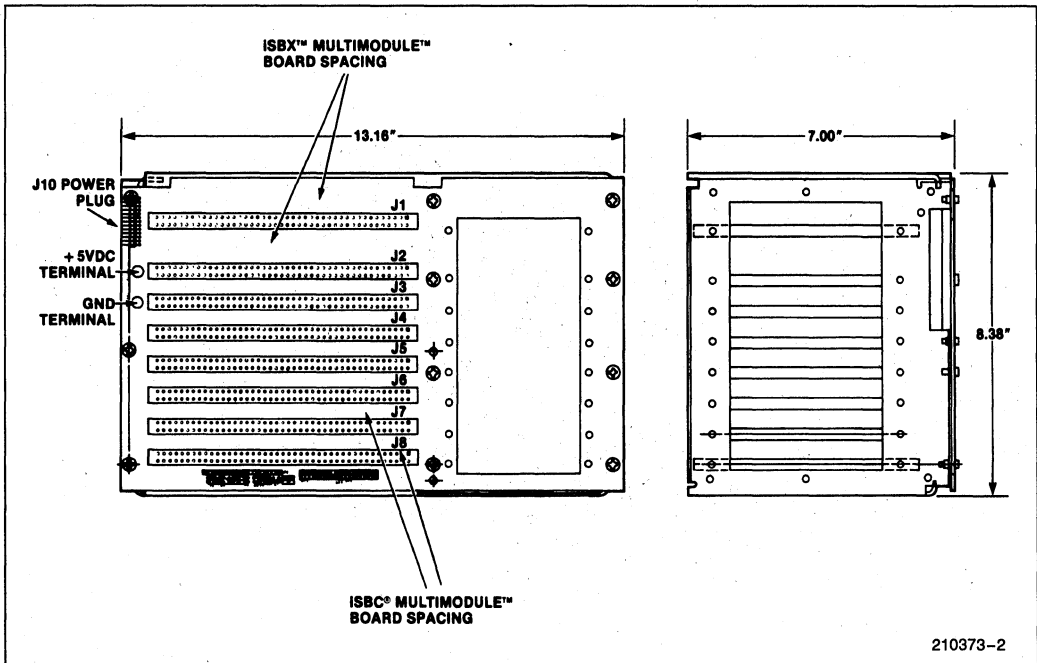


Figure 1. ISBC® 608/618 Cardcages Dimensions

SPECIFICATIONS

Bus Lines

All MULTIBUS (IEEE 796) system bus address and command lines are bussed to each of the eight MULTIBUS connectors on the backplane. Ground traces are interleaved among these signal lines and bussed to the backplane edge connector for interconnection of the iSBC 608 and iSBC 618 backplane.

Power Connectors

Ground (0V), +5V, -5V, +12V, -12V power supply header stakes and power lug bolts are provided on the iSBC 608/618 Cardcages as shown in Figure 2.

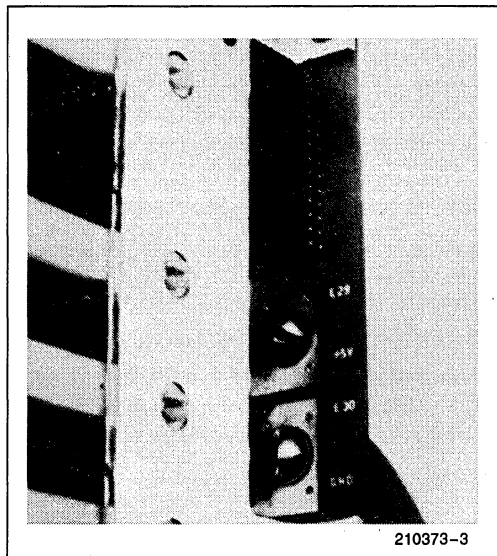


Figure 2. Power Header Stakes and Lugs

Environmental Characteristics

Operating Temperature: 0°C to 55°C
 Storage Temperature: -40°C to +85°C
 Humidity: 50% to 95% non-condensing at 25°C to 40°C.
 Vibration and Shock: 2G max. through 50 Hz

Physical Characteristics

SLOT-TO-SLOT DIMENSIONS (See Figure 1)

Top-J1: 1.200 in. (to center)
 J1-J2: 1.300 in. (center to center)
 J8-Bottom: 0.700 in. (to center)
 All Others: 0.800 (center to center)

Physical Dimensions

Height: 8.38 in. (21.29 cm)
 Length: 13.16 in. (33.43 cm)
 Width: 7.50 in. (19.05 cm)
 Weight: 3.50 lbs (1.59 kg)
 Shipping Weight: 5.75 lbs (2.61 kg)

Equipment Supplied

ISBC® 608 BASE UNIT

Eight Slots: Two at greater than 1.2 inches; six at 0.8 inches
 Male Backplane Connector: For expansion with iSBC 618 cardcage
 Parallel Priority Circuitry: Eight slots are configurable via the use of jumper stakes. Six priority schemes allowed
 Construction Materials: Aluminum card housing
 Nylon card guides
 Power connector header stakes and lug bolts

Accessories

ISBC® 618 EXPANSION UNIT

Eight-Slots: Two at greater than 1.2 inches; six at 0.8 inches

Female Backplane Connector: For expansion to iSBC 608 base unit

Parallel Priority Circuitry: Eight slots are configurable via the use of jumper stakes. Six priority schemes allowed.

Construction Materials: Aluminum card housing
Nylon card guides
Power connector header stakes and lug bolts
Fan Mounting Hardware Schematic

User-Supplied Equipment

MATING POWER CONNECTORS

Vendor	Part Number
3M	3399-6026
Ansley	609-2600M
Berg	65485-009

MOUNTABLE FANS

Vendor	Part Number
Rotron	SU2A1-028267
Torin	TA300-A30473-10
Pamotor	8506D