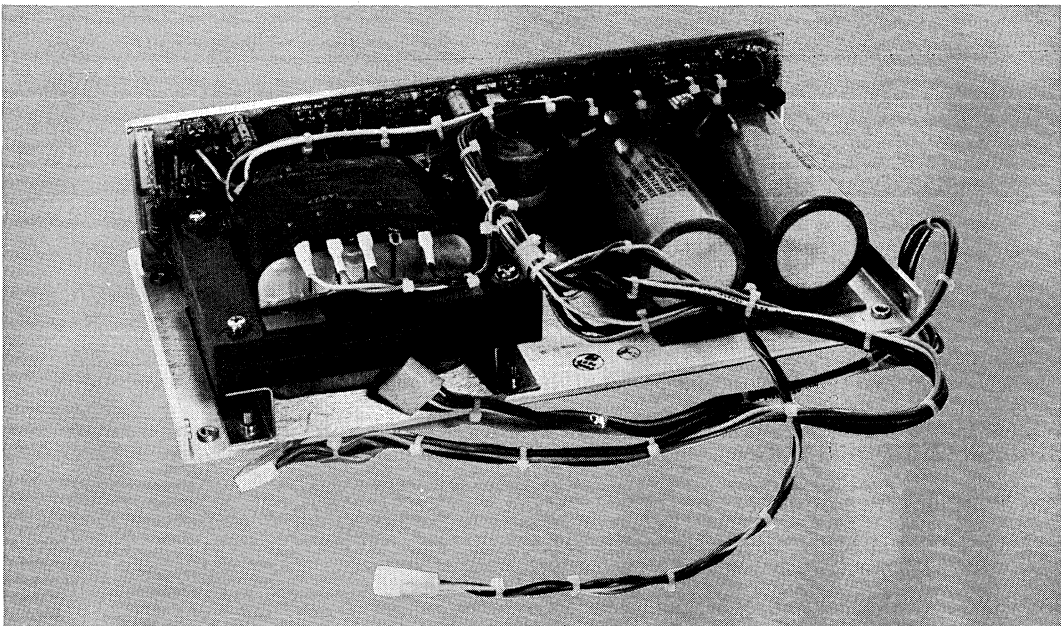




## iSBC 635 POWER SUPPLY

- Compact single chassis
- $\pm 5V$  and  $\pm 12V$  iSBC 80 and iSBC 86 system power
- Sufficient power for one fully loaded Intel single board computer plus residual power for up to three Intel iSBC expansion boards
- Current limiting and overvoltage protection on all outputs
- DC power cables and connectors mate directly to iSBC 604 Modular Cardcage/Backplane assembly
- "AC low" power failure TTL logic level output provided for system power-down control
- 100V, 115V, 215V, and 230V AC operation
- 50 Hz or 60 Hz input

The iSBC 635 Power Supply provides low cost, off-the-shelf, single chassis power generation for OEM products using Intel single board computers. The iSBC 635 supply provides regulated DC output power at +12V, +5V, -12V, and -12V levels. The current capabilities of each of these output levels have been chosen to provide power over a 0°C to +55°C temperature range for one Intel single board computer fully loaded with I/O line terminators and drivers and EPROMs, plus residual capability for most combinations of up to three iSBC memory, I/O or combination expansion boards. Current limiting and overvoltage protection is provided on all outputs. Access for AC input is provided via a standard 4-pin keyed connector. DC output power levels are provided on cables with keyed connectors directly compatible with the iSBC 604 Modular Cardcage/Backplane assembly. The iSBC 635 supply includes logic whose purpose is to sense system AC power failure and generate a TTL signal for clean system power-down control.



# ISBC 635

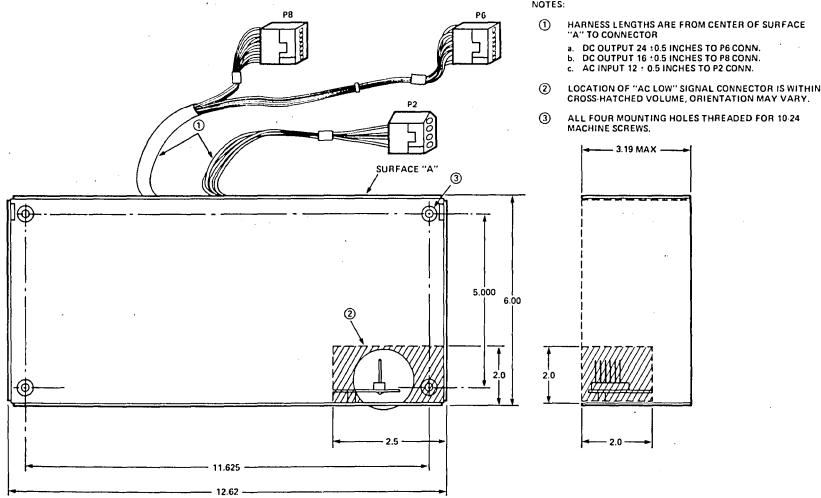


Figure 1. ISBC 635 Mounting Information

## SPECIFICATIONS

### Mating Connectors<sup>1</sup>

#### AC Input

Connector	Molex	03-09-1042 or equivalent
Pin	Molex	02-09-1118 or equivalent (18 to 22 gauge wire)

#### DC Output<sup>2</sup>

Header	Molex	09-66-1071
	AMP	87194-6

#### "AC Low" Control

Connector	Molex	09-50-7071
	AMP	87159-7
Polarizing key	Molex	15-04-0219
	AMP	87116-2
Pin	Molex	08-50-0106 (18 to 22 gauge wire)
	AMP	87023-1 (18 to 22 gauge wire)

#### Notes

1. Pins from a given vendor may only be used with connectors from the same vendor.
2. ISBC 635 DC output connectors are directly compatible with power input power connectors on ISBC 604 Modular Cardcage/Backplane assembly. Two connectors are provided.

### Physical Characteristics

**Height** — 3.19 in. max (8.11 cm)

**Width** — 6.03 in. max (15.32 cm)

**Depth** — 12.65 in. max (32.12 cm)

**Weight** — 13 lb (5.90 kgm)

## Electrical Characteristics

**Input Power** — Frequency: 47 – 63 Hz. Voltage (Nominal) (Single Phase): 100, 115, 215, or 230 VAC +10%

#### Output Power:

Nominal Voltage	Current (AMPS)(MAX)	Current Limit Range (AMPS)	Max Short Circuit (AMPS)	Over-Voltage Protection
+12	2.0	2.1-3.0	1.0 (Foldback)	+14 to +16 V
+5	14.0	14.7-21.0	7.0 (Foldback)	+5.8 to +6.6 V
-5	0.9	0.9-1.4	1.4	-5.8 to -6.6 V
-12	0.8	0.8-1.2	1.2	-14 to -16 V

**Combined Line/Load Regulation** —  $\pm 1\%$  at  $\pm 10\%$  static line change and  $\pm 50\%$  static load change, measured at the output connector ( $\pm 0.2\%$  measured at the power supply under the same conditions).

**Remote Sensing** — Provided for +5VDC output line regulation.

**Output Ripple and Noise** — 10 mV peak-to-peak maximum (DC to 500 KHz)

**Output Transient Response** — Less than 50  $\mu$ sec for  $\pm 50\%$  load change

**Output Transient Deviation** — Less than  $\pm 5\%$  of initial voltage for  $\pm 50\%$  load change.

**Power Failure Indication (AC Low)** — A TTL open collector high signal is provided when the input voltage drops below 90% of its nominal value. DC voltages will remain within 5% of their nominal values for 3.0 milliseconds (minimum) after AC low goes true.

## ISBC 635

The "AC Low" signal will reset to a TTL low level when the AC input voltage is restored and after all output voltages are within specified regulation.

The "AC Low" threshold is adjustable for optimum powerdown performance at other input combinations (i.e. 100 VAC, 215 VAC, 50 Hz).

### Environmental Characteristics

**Operating Temperature** — 0°C to +55°C with 35 CFM moving air

**Non-Operating** — -40°C to +85°C

### Equipment Supplied

ISBC 635 Power Supply with AC and DC cables and connectors attached as shown in Figure 1.

### Reference Manual

**9800298C** — ISBC 635 Power Supply Hardware Reference Manual (includes schematics) (NOT SUPPLIED)

Reference manuals are shipped with each product only if designated SUPPLIED (see above). Manuals may be ordered from any Intel sales representative, distributor office or from Intel Literature Department, 3065 Bowers Avenue, Santa Clara, California 95051.

## ORDERING INFORMATION

Part Number	Description
SBC 635	Power Supply