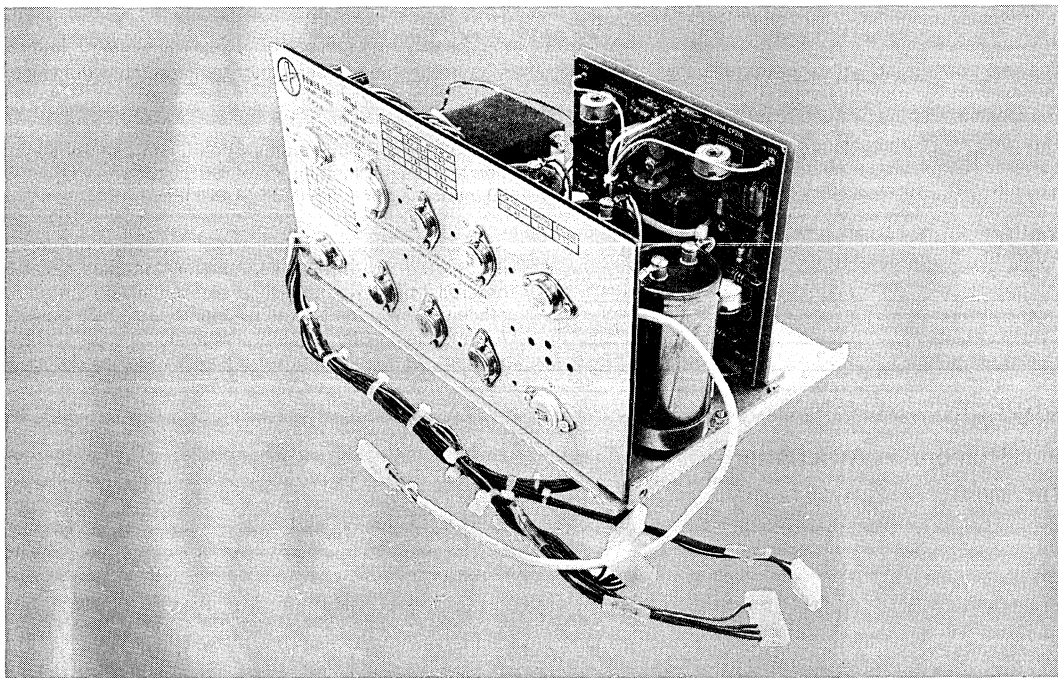




## iSBC 640 POWER SUPPLY

- $\pm 5V$  and  $\pm 12V$  iSBC 80/86 power
- Sufficient power for 8-12 MULTIBUS computer, memory, and peripheral boards
- Current limiting and overvoltage protection on all outputs
- "AC low" power failure TTL logic level output provided for system power-down control
- Compact single chassis/slide rail mounts in iCS 80 Industrial Chassis or OEM environments
- DC power cables and connectors mate directly to iSBC 604 Modular Cardcage/Backplane assembly
- 100, 115, 215, and 230V AC operation
- 50 Hz or 60 Hz input

The iSBC 640 Power Supply provides low cost, off-the-shelf, single chassis power generation for OEM and industrial system products using Intel single board computers. The iSBC 640 supply provides regulated DC output power at +12V, +5V, -5V 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 fully loaded Intel single board computer, plus residual capability for most combinations of up to eleven 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 604/614 Modular Backplane/Cardcage assemblies. The iSBC 640 supply includes logic whose purpose is to sense system AC power failure and generate a TTL signal for clean system power-down control.



## SPECIFICATIONS

### Electrical Characteristics

#### Input Power

**Frequency:** 50 Hz  $\pm$  5%, 60 Hz  $\pm$  5%

**Voltage:** 115V  $\pm$  10%, 230V  $\pm$  10%, 215VAC  $\pm$  10%,

100VAC  $\pm$  10%

Via user configured wiring options

#### Output Power

Nominal Voltage	Current (Amps)(Max)	Current Limit Range (Amps)	Short Circuit (Amps)(Max)	Overvoltage Protection
+ 12V	4.5A	4.7- 6.8	2.3	15V $\pm$ 1V
+ 5V	30A	31.5-45.0	15.0	6.2V $\pm$ 0.4V
- 5V	1.75A	1.8- 3.2	0.9	- 6.2V $\pm$ 0.4V
- 12V	1.75A	1.8- 3.2	0.9	- 15V $\pm$ 1V

**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 +5 VDC 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  $\pm$  10% 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, 7.5 ms typical) after AC Low goes true.

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).

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

#### AC Input

Housing	Molex	03-09-2042 or equivalent
Pin	Molex	02-09-2118 or equivalent (18 to 22 gauge wire)

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

Housing	Molex	26-03-3071
	Amp	3-87025-3
Pins	Molex	08-50-0187 or 08-50-0189
	Amp	87023-1
	Molex	15-04-9209
Key	Molex	15-04-9209
	Amp	87116-2

Compatible with Molex 09-66-1071 Header

#### Notes

1. Pins from given vendor may only be used with connectors from the same vendor.
2. iSBC 640 DC output connectors are directly compatible with input power connectors on iSBC 604 Modular Cardcage/Backplane assembly. Four connectors are provided.

### Physical Characteristics

**Height** — 6.66 in. max. (16.92 cm)

**Width** — 8.19 in. max. (20.80 cm)

**Depth** — 12.65 in. max. (32.12 cm)

**Weight** — 30 lbs. max (13.63 kg)

### Environmental Characteristics

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

**Non-Operating** — -40°C to +85°C

### Equipment Supplied

iSBC 640 Power Supply with AC and DC cables with keyed connectors.

### Reference Manuals

**9800803** — iSBC 640 Power Supply Hardware Reference Manual (includes schematic and assembly drawings) (NOT SUPPLIED)

**9800798** — iCS 80 Systems Site Planning and Installation Manual (for installation of iSBC 640 supply into iCS 80 Industrial Chassis) (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 640 Power Supply