

# MIL-2000

## GENERAL

### Construction and Coating

AL-6000, 60613-T6, aluminium alloy with hard anodized finish per MIL-A-8625D (hard anodizing is a more reliable variant of anodizing, an electro-chemical process that converts the surface of raw aluminum to an extremely hard, durable artificial oxide coating )

### Dimensions

435 (W) x 285 (H) x 232 (D) mm (17.1" x 11.2" x 9.1")  
(closed system with keyboard attached to chassis)

### Weight

Netto 12.5 kg ( 27.5 lb), Gross 14 kg ( 30.8 lb)  
(without backplane, drives and power supply )

### Color

Gray/Brown finnish

## DRIVE BAYS AND COOLING FANS

Drive bay assembly choice also determines cooling fan configuration and power supply options (see selection table)

### Horizontal Drive Bay (A) + Dual Cooling Fan

#### DRIVE BAY

two 3½" drives (one exposed, one hidden)  
and slim notebook CDROM / DVD drive (exposed)

#### COOLING FAN

2x 42.5 CFM ballbearing fans (flow-in) approx 2.5 Watt  
(+12V @ 0.22A), 3200 rpm, 80 x 80 x 25 mm

### Vertical Drive Bay (B) + Single Cooling Fan

#### DRIVE BAY

two 5¼" drives (both exposed) and  
one 3½" drive (exposed)

#### COOLING FAN

2x 21.5 CFM ballbearing fans (flow-in) approx 2.5 Watt  
(+12V @ 0.21A), 5000 rpm, 80 x 80 x 20 mm

## KEYBOARD OPTIONS

### PS/2 Keyboard

106-key Windows 95 compatible Keyboard  
with PS/2 interface

### PS/2 Keyboard with Trackball

105-key alternate layout Keyboard with Trackball  
on right side under number block. Both keyboard  
and trackball have a PS/2 interface

## CONFIGURATION OPTIONS

Configurations	Drive Bay A 2 cooling fans	Drive Bay B 1 cooling fan
IPS-D1U-6150F 150 Watt DC/DC	Yes	Yes
IPS-D2U-6150F 250 Watt DC/DC	Yes	No
IPS-MPW-6180F 180 Watt AC/DC	Yes	Yes

# Technical Specifications

## POWER SUPPLY OPTIONS

### AC/DC ATX type

#### IPS-MPW-6180F

180 W, AC/DC, ATX, auto-switching (200 x 100 x 40.5 mm)

$V_{INPUT}$  : 95~132  $V_{AC}$  or 180~260  $V_{AC}$  @ 47~63 Hz

$V_{OUTPUT}$  (max. load) : +3.3 V @ 6 A, +5 V @ 12 A,

+12 V @ 7 A, -5 V @ 0.2 A, -12V @ 1 A, +5 Vsb @ 1.5 A

$V_{OUTPUT}$  (min. load) : +5 V @ 3 A, +12 V @ 1 A

#### IPS-P1U-6300P

300 W, AC/DC, ATX, switching (210 x 100 x 70 mm)

$V_{INPUT}$  : 95~132  $V_{AC}$  or 180~265  $V_{AC}$  @ 47~63 Hz

$V_{OUTPUT}$  (max. load) : +3.3 V @ 6 A, +5 V @ 26 A,

+12 V @ 11 A, -5 V @ 0.25 A, -12V @ 1 A, +5 Vsb @ 1.5 A

$V_{OUTPUT}$  (min. load) : +5 V @ 3 A, +12 V @ 1 A

### DC/DC ATX type

#### IPS-D1U-6150F

150 W, DC/DC ATX (200 x 100 x 40.5 mm)

$V_{INPUT}$  : -42 ~ -56  $V_{DC}$  (6.0 A (RMS) @ -42  $V_{DC}$ )

$V_{OUTPUT}$  (max. load) : +3.3 V @ 6 A, +5 V @ 10 A,

+12 V @ 6 A, -5 V @ 0.1 A, -12V @ 1 A, +5 Vsb @ 720 mA

## ENVIRONMENTAL

### EMI/RF (Electromagnetic )

For EMI shielding requirements, a electrical conductive layer is added to the hardcoated aluminum chassis and its parts.

This coating provides the chassis with a electrical conductive shield. Its standard resistivity level of 500 ohms/square inch enables the chassis to provide the necessary EMI attenuation to pass FCC and CE requirements.

### Operating Temperature

0~50°C (0~60°C non-operating)

### Altitude

3000 m (10,000 ft.)

### Shock

2.5G @ 15-20ms (35G @ 15-20ms non-operating)

### Vibration

5 ~ 17 Hz, 0.1" double amplitude displacement;  
17 ~ 500 Hz, 1.5 G acceleration (operating and non-operating)



<b>MIL-2000</b>		<b>Rugged Portable Workstation</b>		
REFERENCE ONLY	SIZE	FSCM	DRAWING NO.	REV.
	L		200030	A1
All dimensions in millimeters unless noted otherwise		SCALE : NONE	HBR	SHEET 1 OF 3

# MIL-2000

# Optional Components

## FLAT PANEL DISPLAYS

### 10.4" Long-life, High-luminance TFT Display with LVDS interface

640 x 480 SVGA Color TFT, 262144 colors  
high-luminance 200 cd/m<sup>2</sup>  
power consumption approx 7 Watt

### 12.1" TFT Display with LVDS interface

800 x 600 SVGA Color TFT, 262144 colors  
luminance 100 cd/m<sup>2</sup>

## CPU CARDS

*Full-size PCI/ISA*

### PIA-662DVL

**Full-size Intel® Celeron™ Socket 370 CPU Card**  
with C&T 69000 Flat Panel / CRT SVGA Controller,  
Realtek 8139A, 10BASE-T/100BASE-TX Fast Ethernet,  
and DiskOnChip®2000 socket for Flash disk of up to 288 MB  
(connects to LCD display with LVDS adapter)

### PIA-672DVL

**Full-size Pentium CPU Card**  
with C&T 69000 Flat Panel / CRT SVGA Controller,  
and DiskOnChip®2000 socket for Flash disk of up to 288 MB  
(directly connects to LCD display with LVDS adapter)

*Half-size ISA*

### PIA-673DVL

**Half-size Pentium CPU Card**  
with C&T 69000 Flat Panel / CRT SVGA Controller,  
Intel 82559, 10BASE-T/100BASE-TX Fast Ethernet,  
and DiskOnChip®2000 socket for Flash disk of up to 288 M  
(directly connects to LCD display with LVDS adapter)

## PASSIVE BACKPLANES

*ISA*

### PBI-6S

6-slot ISA Passive Backplane with standard P8/P9  
power connector and screw terminal block

### PBI-8S

8-slot ISA Passive Backplane with standard P8/P9  
power connector and screw terminal block

*PICMG (full-size PCI/ISA)*

### PBPI-6SA

6-slot PICMG Passive Backplane ,  
1 ISA, 2 PICMG, 4 PCI, with standard P8/P9 power  
connector and screw terminal block

### PBPI-8SA

8-slot PICMG Passive Backplane ,  
2 ISA, 3 PICMG, 4 PCI, with standard P8/P9 and ATX  
power connectors and screw terminal block

*PISA (half-size PCI/ISA)*

### PBP-6S

6-slot PISA Passive Backplane ,  
1 ISA, 4 PCI, 2 PISA, with standard P8/P9 power  
connector and screw terminal block

### PBP-8S

8-slot PISA Passive Backplane ,  
2 ISA, 4 PCI, 2 PISA, with standard P8/P9 power  
connector and screw terminal block



Industrial PC-based Automation

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# MIL-2000 Ordering Code Structure

(example only)

**MIL-2000 - 10 T 4 L 1 A B A**

**Position #1**

**Display Size**

10 = 10.4"  
12 = 12.1"

**Position #2**

**Display Type**

T = TFT

**Position #3**

**Passive Backplane**

- 1 = PBI-6S
- 2 = PBI-8S
- 3 = PBPI-6SA
- 4 = PBPI-8SA
- 5 = PBP-6S
- 6 = PBP-8S

**Position #4**

**Display Interface Type**

T = TTL  
L = LVDS

**Position #5**

**Display SVGA Card Option**

- 1 = without SVGA Card  
(SVGA onboard CPU Card)
- 2 = with Flat Panel SVGA Card
- 3 = with D/A Conversion board  
and CRT S3 SVGA card

**Position #8**

**Power Supply Options**

- A = IPS-MPW-6180F  
150 Watt ATX, AC/DC
- B = IPS-P1U-6300P  
300 Watt ATX, AC/DC
- C = IPS-D1U-6150F  
150 Watt ATX, DC/DC

**Position #7**

**Keyboard Option**

- A = 105-key alternate layout  
with Trackball
- B = 106-key Windows 95  
compatible

**Position #6**

**Drive Bay Option**

- A = 2x 3½ and Slim CDRom drive  
horizontal, dual cooling fan
- B = 2x 3½ and 1x 5¼ drives  
vertical, single cooling fan

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