

Modular System Industrial Panel PCs

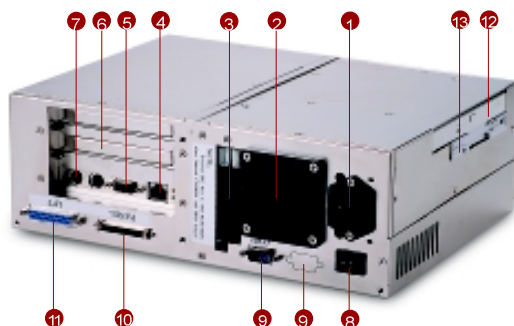
AMB-2003HT/AMB-2023HT/AMB-2053HT



▲ AMB-2003HT
10.4" LCD + ACS-2303
Control Box



▲ AMB-2023HT
12.1" LCD + ACS-2303
Control Box



▲ ACS-2303

- | | |
|---|-------------------------------------|
| 1. Power connector | 8. Power on/off |
| 2. Cooling fan | 9. RS-232 COM ports |
| 3. External IDE and FDD connector | 10. External panel connector |
| 4. 10/100 Base-T Ethernet port | 11. EPP/ECP parallel port |
| 5. VGA port | 12. 24x CD-ROM driver |
| 6. Two free expansion slot for ISA or PCI | 13. 3.5" 1.44 MB Floppy disk driver |
| 7. Mouse and keyboard connectors | |



▲ AMB-2053HT
15" LCD + ACS-2303
Control Box

Introduction

The AMB-2003HT/AMB-2023HT/AMB-2053HT modular system panel PC, are a PC-based industrial computer that are designed to serve as a Man Machine Interface. They are full-function PC-based system with a 10.4" VGA (640 x 480) or 12.1" SVGA (800 x 600) or 15" XGA (1024 x 768) color TFT hi-brightness, long-life time LCD display, and works with different control modules via a 50-pin cable. The compact dimensions are ideal for automation applications when the installation space is critical. These PCs are characterized by their space saving, flexible selection of control boxes. AMB-2003HT/AMB-2023HT/AMB-2053HT have a heavy-duty steel chassis with a sealed plastic front panel which meet the toughest industrial and environmental standards.

Panel PCs

Features for AMB-2003HT series

(10.4" LCD + ACS-2303 Control Box)

- 10.4" VGA color TFT LCD display
- Compliant plastic front panel and heavy-duty steel chassis
- Water-proof front panel meets NEMA 4/12 & IP65
- All-in-one Celeron 366MHz SBC (CPU up to 850MHz)
- All-in-one Pentium or 486 SBC (optional)
- Two 16C550 RS-232C ports
- Disk drive space for CD-ROM, FDD and HDD
- DiskOnChip flash disk socket
- Two free expansion slots for ISA or PCI
- Resistive touchscreen (optional)

Specifications for AMB-2003HT series

(10.4" LCD+ACS-2303 Control Box)

- **Construction:** Heavy-duty stainless steel chassis & NEMA 4/12 plastic front panel.
- **CPU:** Celeron 366MHz, up to PIII 850MHz (FSB 66/100 MHz)
- **Memory:** 32MB SDRAM (Up to 256MB)
- **Display:** 10.4" VGA (640 x 480) color TFT LCD
- **LCD/CRT controller:**
C&T 69000 VGA controller with 2MB SDRAM. CRT & LCD panel support.
- **Network (LAN):** Intel 82558B 10/100 Base-T Ethernet controller
- **I/O ports:**
2 serial ports: 2 x RS-232
1 parallel port (support ECP/EPP)
1 keyboard port
1 PS/2 mouse interface
- **Disk Drive Housing:**
3.5" HDD or
2.5" HDD , Slim FDD and Slim CD-ROM
- **USB connector:** Pin header for Dual USB
- **Front panel color:** PMS cool gray 4C
- **Mounting:** Panel mount or Wall mount (ACS-2303 control box only, optional)
- **Expansion slots:** 2 PCI or 1 ISA and 1PCI slot
- **Power supply:** Universal 70W switching power supply
- **Dimension (W x H x D):**
330 x 252 x 128mm (13" x 9.9" x 5")
- **Gross Weight:** 9.6 Kg (21.2 lbs)

Features for AMB-2023HT series

(12.1" LCD + ACS-2303 Control Box)

- 12.1" SVGA color TFT LCD display
- Compliant plastic front panel and heavy-duty steel chassis
- Water-proof front panel meets NEMA 4/12 & IP65

- All-in-one Celeron 366MHz SBC (CPU up to 850MHz)
- All-in-one Pentium or 486 SBC (optional)
- Two 16C550 RS-232C ports
- Disk drive space for CD-ROM, FDD and HDD
- DiskOnChip flash disk socket
- Two free expansion slots for ISA or PCI
- Resistive touchscreen (optional)

Specifications for AMB-2023HT series

(12.1" LCD+ACS-2303 Control Box)

- **Construction:** Heavy-duty stainless steel chassis & NEMA 4/12 plastic front panel.
- **CPU:** Celeron 366MHz, up to PIII 850MHz (FSB 66/100 MHz)
- **Memory:** 32MB SDRAM (Up to 256MB)
- **Display:** 12.1" SVGA (800 x 600) TFT color LCD
- **LCD/CRT controller:**
C&T 69000 VGA controller with 2MB SDRAM. CRT & LCD panel support.
- **Network (LAN):** Intel 82558B 10/100 Base-T Ethernet controller
- **I/O ports:**
2 serial ports: 2 x RS-232
1 parallel port (support ECP/EPP)
1 keyboard port
1 PS/2 mouse interface
- **Disk Drive Housing:**
3.5" HDD or
2.5" HDD , Slim FDD and Slim CD-ROM
- **USB connector:** Pin header for Dual USB
- **Front panel color:** PMS cool gray 4C
- **Mounting:** Panel mount or Wall mount (ACS-2303 control box only, optional)
- **Expansion slots:** 2 PCI or 1 ISA and 1PCI slot
- **Power supply:** Universal 70W switching power supply
- **Dimension (W x H x D):**
346 x 271 x 126mm (13.6" x 10.7" x 5")
- **Gross Weight:** 10 Kg (22.1 lbs)

Features for AMB-2053HT series

(15" LCD + ACS-2303 Control Box)

- 15" XGA color TFT LCD display
- Compliant plastic front panel and heavy-duty steel chassis
- Water-proof front panel meets NEMA 4/12 & IP65
- All-in-one Celeron 366MHz SBC (Up to 850MHz)
- All-in-one Pentium or 486 SBC (optional)
- Two 16C550 RS-232C ports
- Disk drive space for CD-ROM, FDD and HDD
- DiskOnChip flash disk socket
- Two free expansion slots for ISA or PCI
- Resistive touchscreen (optional)

Specifications for AMB-2053HT series (15" LCD + ACS-2303 Control Box)

- **Construction:** Heavy-duty steel chassis & NEMA 4/12 plastic front panel.
- **CPU:** Celeron 366MHz, up to PIII 850MHz (FSB 66/100 MHz)
- **Memory:** 32MB SDRAM (Up to 256MB)
- **Display:** 15" XGA (1024 x 768) color TFT LCD
- **LCD/CRT controller:** C&T 69000 VGA controller with 2MB SDRAM. CRT & LCD panel support.
- **I/O ports:**
 - 2 serial ports: 2 x RS-232
 - 1 parallel port (support ECP/EPP)
 - 1 keyboard port
 - 1 PS/2 mouse interface
- **Disk Drive Housing:**
 - 3.5" HDD or
 - 2.5" HDD, Slim FDD and Slim CD-ROM
- **USB connector:** Pin header for Dual USB
- **Front panel color:** PMS cool gray 4C
- **Mounting:** Panel mount
- **Expansion slots:** 2 PCI or 1 ISA and 1PCI slot
- **Power supply:** Universal 70W switching power supply
- **Dimension (W x H x D):** 420 x 300 x 139.2mm (16.5" x 11.8" x 5.5")
- **Gross Weight:** 13.6 Kg (30 lbs)

Power Supply

- **Input Voltage:** 85 ~ 264V AC
- **Output Voltage:**
 - +5V@10A, +12V@1.5A, -12V@0.3A
- **MTBF:** 7200,000 Hrs per MIL — Handbook 217F
- **Safety:** UL, CUL, TUV approved
- **EMI:** FCC Class B, CISPR22B

Environmental

- **Operating temperature:** 0° to 50°C (32~122°F)
- **Storage temperature:** -20° to 60°C (-4~140°F)
- **Storage humidity:** 5 to 95%, non-condensing
- **Vibration:**
 - 5 to 17 Hz, 0.1" double-amplitude displacement

LCD Specification

Model	AMB-2003HT	AMB-2023HT	AMB-2053HT
Display type	10.4" color TFT LCD	12.1" color TFT LCD	15" color TFT LCD
Max. Resolution	640 x 480	800 x 600	1024 x 768
Max. Colors	256K	256K	256K
Dot size (mm)	0.33 x 0.33	0.3075 x 0.3075	0.313 x 0.329
Luminance (cd/m ²)	200	250	250
Viewing angle	90° (H)	120° (H)	160° (H)
	50° (V)	100° (V)	160° (V)
Temperature	0° ~ 50°C (32~122°F)	0° ~ 50 °C (32~122 °F)	0° ~ 50 °C (32~122 °F)
Brightness Control	N/A	VR	Yes
LCD MTBF (Hrs)	50,000	50,000	50,000
Back Light MTBF (Hrs)	20,000	25,000	25,000

17 to 500 Hz, 1.5G peak to peak

- **Shock:** 10G peak acceleration (11 msec. duration)
- **EMI:** CE/FCC Class A

Touchscreen (optional)

Type: 4/8-wire, analog resistive

Resolution: 1024 x 1024

Light transmission: 72%

Lifetime: 1 hundred million touches

Operating pressure: 30-45 grams for finger, 10 grams for stylus pen. Contact bounce < 10ms

Controller: RS-232 interface

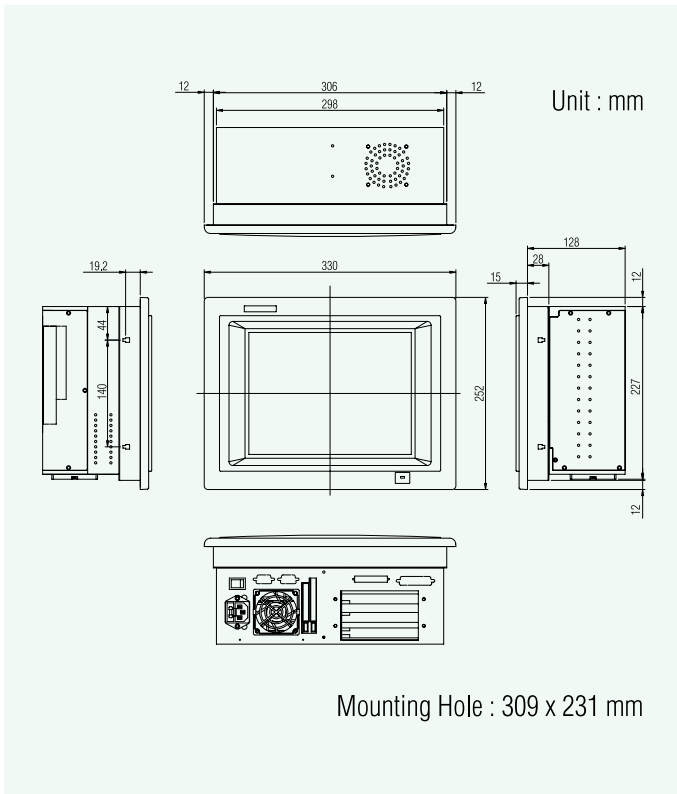
Power consumption: +5V @200mA

OS support: MS DOS, Windows 3.1, Windows 95, Windows 98, Windows NT, Windows 2000.

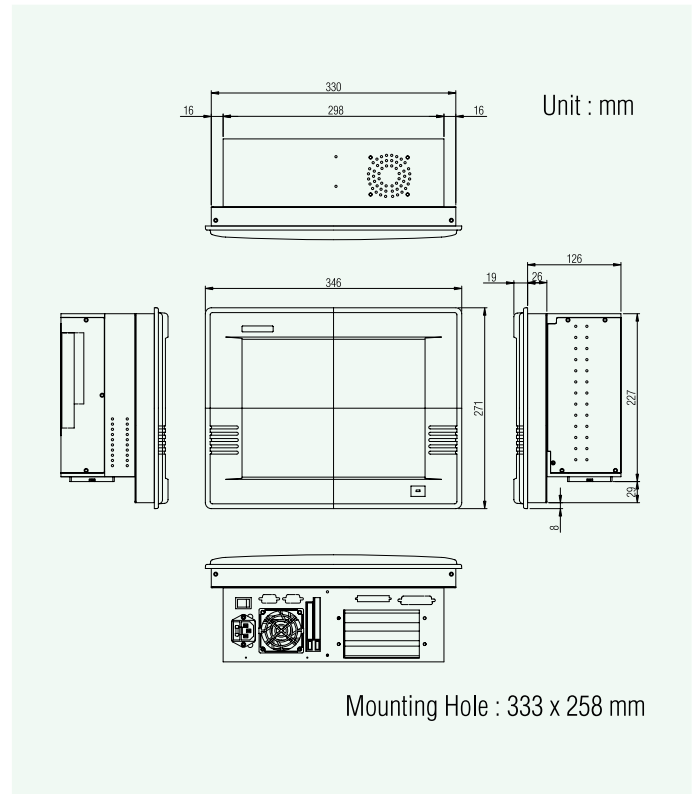
Ordering Information

- **AMB-2003HT**
 - Modular system Panel PC, ACS-2303 with 10.4" color TFT LCD display
- **AMB-2003HTT**
 - AMB-2003HT + touchscreen (RS-232 interface)
- **AMB-2023HT**
 - Modular system Panel PC, ACS-2303 with 12.1" color TFT LCD display
- **AMB-2023HTT**
 - AMB-2023HT + touchscreen (RS-232 interface)
- **AMB-2053HT**
 - Modular system Panel PC, ACS-2303 with 15" color TFT LCD display
- **AMB-2053HTT**
 - AMB-2053HT + touchscreen (RS-232 interface)
- **ACS-2303**
 - FC/Socket 370 PISA SBC, 70W AC power supply
- **Optional**
 - CPU
 - HDD
 - Slim CD-ROM
 - Slim FDD
 - RAM
 - 70W DC10~30V power supply
 - AKB-106 (refer to p.98)
 - 20 function-key membrane keyboard
 - AKB-107 (refer to p.98)
 - 56 data-entry membrane keyboard

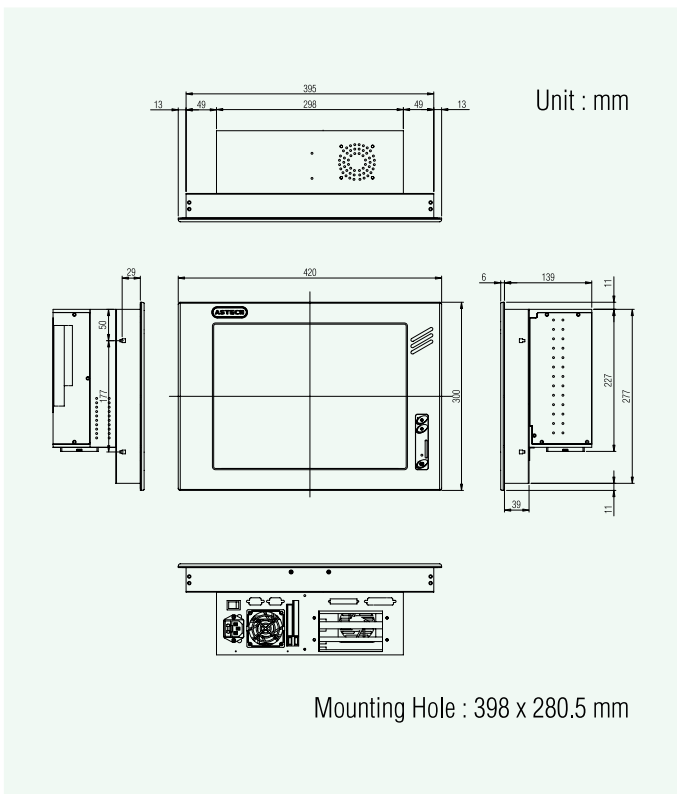
Dimension



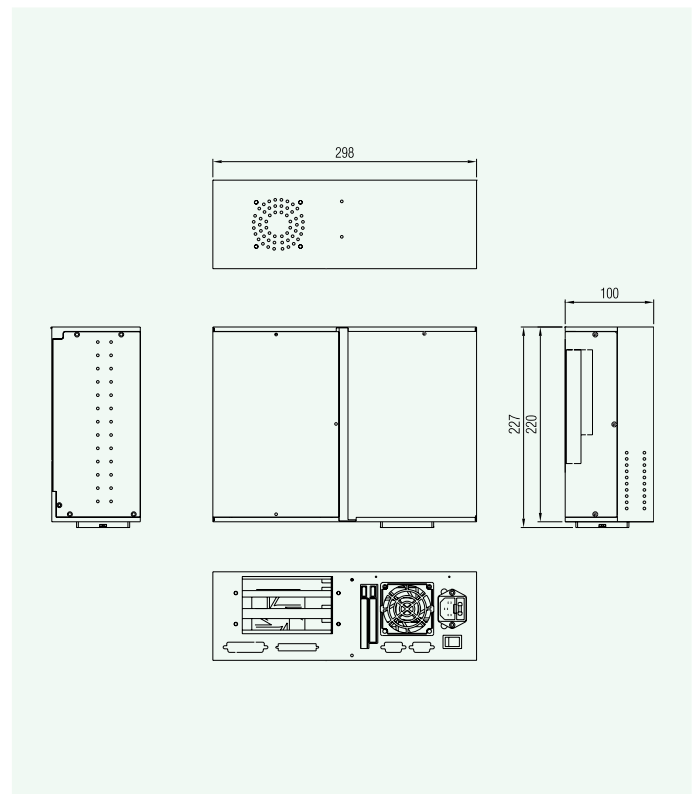
AMB-2003HT



AMB-2023HT



AMB-2053HT



ACS-2303