

PPC-A120T

Modularized Panel PC with 12.1" LCD and Aluminum die-cast housing



Features

- 12.1" TFT SVGA LCD
- NS Geode GX1 300 MHz CPU on board
- System memory up to 128 MB SDRAM (128 MB default built-in)
- Optional PCMCIA module
- Removable 2.5" HDD module
- One internal CompactFlash™ Type I socket (True IDE Mode)
- Optional one PCI/ISA expansion kit
- 10/100 Base-T Ethernet
- Fanless and no ventilation holes
- Rugged aluminum die-cast housing
- External IDE/FDD connectors

Introduction

The modularized Panel PC series is a new addition to the Advantech Panel PC product family featuring an onboard low-power and fanless CPU, plug-in accessory modules, and a rugged die-cast housing. The new PPC-A120T, a 12.1" panel PC was introduced to meet customer demand for a large size Panel PC with fanless design, specially for HMI applications, such as factory, machinery automation, transportation, and health care. The PPC-A120T is designed with advanced breakthrough concepts. When installed in an open space, no fan is required.

Aluminum Die-cast Housing

The housing is completely sealed to system in harsh environments. The die-cast housing also acts as a heat sink to prevent the system from overheating. The front panel is NEMA 4/IP 65 compliant.

No Ventilation Holes

A heat pipe transmits heat to the housing, so the system's MTBF has been extended. There are no ventilation holes, protecting the system from dust.

Plug-in Accessory Modules

The power supply, HDD and PCMCIA modules of the PPC-A120T can be easily removable for maintenance or exchange. This modular design allows for easier and quicker replacement of accessories.

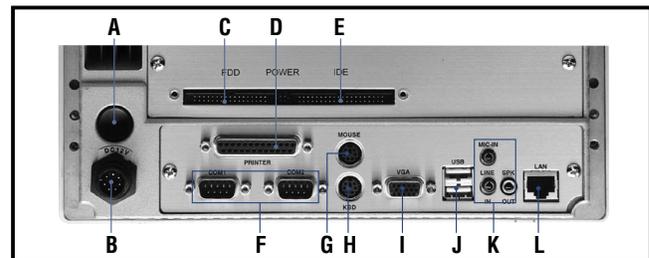
Onboard Health Monitoring

The onboard health monitoring function provides CPU voltage and system temperature self-detection to prevent the system from overheating.

Specifications

- **Construction** Aluminum die-cast housing with optional PCI/ISA extension cover
- **CPU** On board NS Geode GX1 300 MHz processor
- **Memory** Supports up to 128 MB, 1 SODIMM socket (Built-in 128 MB)
- **HDD** One plug-in module for 2.5" type HDD
- **SSD** Supports 1 CompactFlash™ socket
- **FDD** Supports 1 external FDD connector
- **Network** 10/100Base-T Ethernet interface (auto-sensing)
- **Audio** Mic-in/Line-in/Speaker-out jacks
- **Watchdog timer** 62 level, IRQ or reset interrupt
- **Bus expansion** Supports 1 PCI/ISA slot (optional)
- **Dimensions (W x H x D)** 336 x 265 x 100 mm (13.23" x 10.43" x 3.94")
- **Weight** 4.2 kg (9.3 lbs)

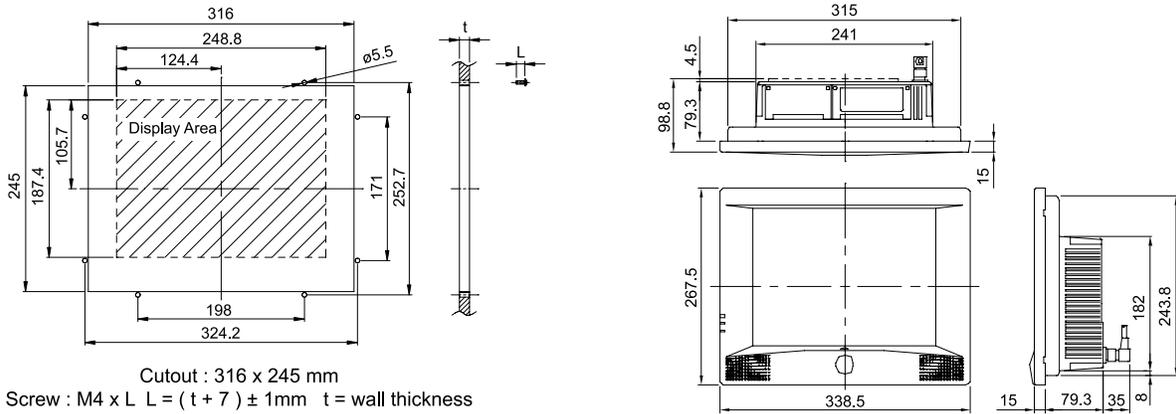
Fully-integrated I/O



- a. Power switch
- b. DC inlet
- c. FDD port
- d. Parallel port
- e. IDE port
- f. COM ports
- g. Mouse
- h. Keyboard
- i. VGA port
- j. USB
- k. Mic-in/Line-in/Speaker-out
- l. Ethernet port

Dimensions

Unit: mm



LCD Display

- **LCD type** TFT color LCD
- **Size (Diagonal)** 12.1"
- **Max. resolution** 800 x 600
- **Max. colors** 256 K
- **Pixel pitch (mm)** 0.31 x 0.31
- **Luminance (cd/m²)** 200
- **Viewing angle** 100°
- **Temperature** 0 ~ 50°
- **Simultaneous mode** Yes
- **LCD MTBF** 50,000 hrs
- **Backlight MTBF** 25,000 hrs

Power Supply

- **Input rating** 18~28 V_{DC}, typical 24 V_{DC}
- **Output voltage** +5 V @ 8 A, +12 V @ 1 A, - 12 V @ 0.3 A
- **EMI** Meets FCC/CE Class B

Touchscreen

- **Type** Resistive
- **Resolution** 800 x 600
- **Light transmission** 75%
- **Controller** RS-232 Interface
- **Power consumption** +5 V @ 200 mA
- **Software driver** Supports DOS, Windows® 95/98/2000/NT
- **Lifetime** More than 30 million touches

Environmental Specifications

- **Operating temperature** 0 to 40° C (32 to 104° F)
- **Relative humidity** 10 to 95% @ 40° C, non-condensing
- **Shock** 10 G peak acceleration (11 msec duration)
- **EMC** CE, FCC Class B
- **Safety** UL, CE



Ordering Information

- **PPC-A120T-051 (Bare BOM: PPC-A120T-051-X)**
Panel PC with 12.1" TFT LCD display (resolution: 800 x 600), aluminum die-cast housing, and DC power supply
- **PPC-A120T-R51 (Bare BOM: PPC-A120T-R51-X)**
PPC-A120T-051 with resistive touchscreen *
DRAM, 2.5" HDD, CompactFlash™ memory, 24V_{DC} power adapter and PCMCIA adapter are available as optional items.

Optional Items

- **PPC-A84 UNIARM** Universal arm for PPC-A84/A120
- **PPC-EXP-A84** PCI/ISA expansion kit for PPC-A84/A120
- **PS-DC24-A84** 24 V_{DC} /2.3 A output Power adaptor
- **96960003010** PCMCIA adaptor for PPC-A120