

Features

- Compact 6.5-inch AM TFT Flat Panel Display
 - 640 x 480 resolution
 - Contrast ratio is 600:1 (typical)
 - Wide viewing angles
 - Quick-response resistive touchscreen included
- Includes PC-compatible SBC (PXM-C388-S1-0-0)
 - Fanless single core 1.66GHz Intel® Atom™ N455
 - 2GB DDR3 SODIMM system memory
 - One Gigabit Ethernet port
 - Four serial ports (two RS-232/422/485, two RS-232)
 - Seven USB 2.0 ports and audio
 - 24 Bidirectional GPIO with event sense
 - SATA channel and CompactFlash socket
 - WDT, RTC, status LEDs, and beeper
 - PC/104 and SUMIT™ expansion connectors
- Runs Linux, Windows® XP, and Windows® 7
- Rugged and reliable aluminum construction
- Easy to mount, open-frame design
- Gasket material supplied for better fit into user's application enclosure
- Operating temperature: -30°C to +70°C

Product Description

WinSystems' PPC3-6.5 Panel PC is a compact, open frame display subsystem that includes a 6.5-inch flat panel, PC-compatible Single Board Computer (SBC) with Ethernet port integrated into an open-frame enclosure. An integrated touchscreen is included and other input devices can be added.

The combination of embedded PC functionality with industrial-grade construction makes the unit ideal for medical, transportation, kiosks, industrial automation and control applications with tight system integration and minimal space requirements.



The Panel PC supports Linux, Windows XP, and Windows 7, plus real-time kernels compatible with the x86 architecture.

Functional Capability

Flat Panel Display - A high-luminance, wide-viewing angle, 6.5-inch diagonal color TFT with LED backlight is the foundation of the Panel PC. It supports VGA 640 x 480 resolution.

This flat panel display is ideal for factory automation use because of its high luminance of 700 cd/m² (nits). It uses two long-life (50K hours minimum) LED backlights. The display supports a viewing angle of ±70° horizontal and ±60° vertical. This wide viewing angle permits easy panel placement with maximum operator viewing flexibility. Its contrast ratio is 600:1.

Single Board Computer (SBC) - An 1.66GHz Intel Atom N455 processor-based SBC serves as the computing and display engine for the Panel PC. This SBC is highly integrated, compact, and designed for embedded, space-limited, low-power applications. Its feature set includes CRT and LVDS flat panel video controller, Ethernet port, USB 2.0 ports, digital I/O, and COM channels. A PC/104 connector is available to support the addition of off-the-shelf or custom-designed modules.

Chassis - The chassis plate is made of aluminum alloy. The rigid plate serves as a base to hold the SBC, I/O connector plate, power terminal strip, and touchscreen controller. It is designed to rigidly hold the LCD yet not twist or stress the panel or cables.

PPC3-G-6.5-388: 6.5-inch AM TFT Panel with Touchscreen

Technical Specifications

Display

Type	6.5-inch diagonal Color AM TFT
Display Type	Active Matrix color LCD TFT
Pixel Format	640 x 480 (maximum)
Dot Size	0.207 mm (H) x 0.207 mm (V)
Colors	262,144, 6-bit digital
Brightness (without touchscreen)	700 cd/m2 (nits) typical
Contrast Ratio	600:1 typical
Horizontal Viewing Angle	±70° typical
Vertical Viewing Angle	±60° typical
Surface Coating	Anti-glare hard coating
Touchscreen	Analog resistive

Single Board Computer

CPU Type	1.66GHz Intel Atom
Video	Simultaneous LVDS and VGA
Memory	2GB DDR3 SODIMM
CompactFlash	Socket supports Type I and II
SATA	1x SATA 2.0 channels
Ethernet	1x Gigabit port
USB	7x USB 2.0 ports
Serial I/O	2x 16C550-compatible RS-232/422/485 serial channels with speeds up to 115.2kbps 2x 16C550-compatible RS-232 serial channels with speeds up to 115.2kbps
Digital I/O	24 I/O lines, TTL compatible
Keyboard	USB supported

Touchscreen

Type	5-wire resistive
Resolution	4096 x 4096

Environmental

Operational Temperature -30° to +70° C

Mechanical

Dimensions	7.75 x 5.375 x 2.25 inches (WxHxD)
Weight	1.60 lbs (0.726 kg)

Power

+5V @ 4.7A, typical
+12V @ 0.25A typical

Technical Support

WinSystems can provide electronic CAD drawings to help you begin your design. We offer free support to speed your initial design cycle into production.

Custom Configurations

Should your application need a special configuration, please contact our Applications Engineers to discuss your requirements. We look forward to working with you.

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Ordering Information

Visit www.WinSystems.com for complete ordering details.

PPC3-G-6.5-388-1	Panel PC with Intel Atom SBC and resistive touchscreen
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Quickstart Operating System Options

OS-L50-388-CXxxG	Linux sample image based on Ubuntu 12.04 LTS
OS-W7032-CXDxxG-388	Windows 7 Embedded sample image (WES7)
OS-X40-CXDxxG-388	Windows XPe sample image (WES 2009)

Cables

CBL-SET-PPC3-388-1	PPC3-G-6.5-388-1 cables and accessories set
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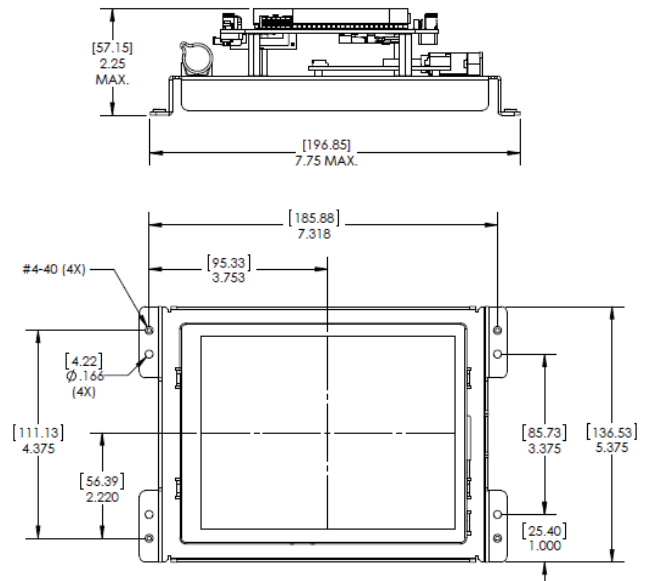
Power Supply

PS-80W-2-PPC3	80 Watt switching power supply
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CompactFlash (details www.IndustrialCompactFlash.com)

CF-DC-A-xxG-I	1 - 16GB High Speed CF cards
CFLASH-G-xxx-I	128MB - 8GB CF cards

Mounting Information - The PPC3-6.5 is designed to be rear mounted to a panel or placed in an instrument as a system component. Four through holes plus four captured #4-40 threaded holes provide placement flexibility.



Overall dimensions: X = 7.75" Y = 5.375" Z = 2.25"

