WinSystems®
An Employee-Owned Company

PPC3-G-6.5-359
Low Powered 6.5-inch AM TFT Panel with Touchscreen

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 (PPM-LX800-G)
  - AMD LX800 processor
  - 1GB SODIMM system memory
  - 10/100 Ethernet port
  - Four serial ports (two RS-232/422/485, two RS-232)
  - USB 2.0, LPT, keyboard, mouse, HD audio
  - 16 Bidirectional GPIO with event sense
  - PATA channel and CompactFlash socket
  - PC/104 and PC/104-*Plus* expansion connectors
- Runs Linux and Windows® XP
- 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 less than three inches thick. 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 and Windows XP, 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 AMD LX800 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-*Plus* connector is available to support the addition of off-the-shelf or custom-designed PC/104 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-6.5-359: 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 via LVDS
Brightness (without touchscreen)	700 cd/m2 (nits) typical
Contrast Ratio	600:1 typical
Horizontal Viewing Angle	±70º typical
Vertical Viewing Angle	±60º typical
Surface Coating	Anti-glare hard coating
Touchscreen	Analog resistive

Single Board Computer

CPU Type	AMD LX800
Video	Simultaneous LVDS and VGA
Memory	1GB SODIMM
CompactFlash	Socket supports Type I and II
PATA	1x PATA IDE channel
Ethernet	1x 10/100 port
USB	1x USB 2.0 port
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	16 I/O lines, TTL compatible
Keyboard	USB or PS/2 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	1.50 lbs (0.68 kg

Power

+5V @ 3.4A, 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.
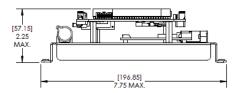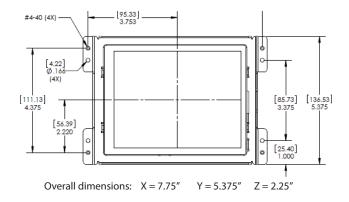
Ordering Information

Visit www.WinSystems.com for complete ordering details.

PPC3-G-6.5L-359-1	6.5-inch touch Panel PC with AMD LX800 SBC and PC/104-*Plus* expansion
PPC3-G-6.5L-359-0	6.5-inch Panel PC with AMD LX800 SBC and PC/104-*Plus* expansion

Quickstart Operating System Options

OS-L40-359-CD2-P365	Linux, Ubuntu 10.04-LTS QuickStart Image on 2G CompactFlash
OS-X40-CXD2G-359	Windows XP Embedded 2009 Quick Start Image on 2G CompactFlash

Cables

CBL-234-G-1-1.375	VGA converter interface
CBL-251-G-1-1.5	Multi-I/O interface cable
CBL-270-G-1-1.5	Stereo audio cable
CBL-352-G-1-1.5	Dual IDE, digital I/O interface

Power Supply

PS-80W-2-PPC3	80 Watt switching power supply

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"