

Industrial Windows CE Touch Panel Computer

NI TPC-2006 **NEW!**

- 5.7 in. QVGA STN LCD industrial touch panel PC
 - 266 MHz low power consumption ARM9 processor
 - Analog resistive touch screen
- Memory
 - 64 MB SDRAM onboard
 - CompactFlash 2.0 expansion slot
- Windows CE.NET 4.2 embedded OS
 - Networking capable
 - Remote terminal services
- LabVIEW Touch Panel Module certified, with one Touch Panel Deployment License
- Communication ports
 - 3 serial ports: (2) RS232 and (1) RS485
 - 1 Ethernet (10/100BaseT)
 - 2 USB 1.1 ports (1 host, 1 client)
- Panel mount
- NEMA4/IP65-compliant front panel
- Extended temperature range to 50 °C
- CE, FCC, and UL certifications



Overview

The National Instruments TPC-2006 is an industrial panel computer with 5.7 in. STN LCD touch screen monitor. It features a low-power consumption, high-performance 266 MHz Intel ARM9 processor; a rugged design with no rotating media (hard drives); and a fanless cooling system. The NI TPC-2006 runs Windows CE.NET OS loaded in the onboard solid-state (flash) memory along with time-saving configuration and startup utilities. Included are useful applications such as Remote Display that work in conjunction with the Windows CE Remote Display Host application so you can control the TPC-2006 remotely from a host PC running either Windows 2000 or XP. Create custom applications for the TPC-2006 using the LabVIEW Touch Panel Module, which compiles your LabVIEW VIs for Windows CE.NET and optimizes them for maximum performance.

Compact Design

The TPC-2006 features a rugged compact design. The small package makes it well-suited for applications where space is limited. The 5.7 in. STN LCD color display with touch screen includes antiglare glass that is NEMA4/IP65-compliant. The TPC-2006 features high shock, vibration, and temperature ratings and also meets global safety standards and agency certifications.

HMI Development with LabVIEW PDA Module

The National Instruments LabVIEW Touch Panel Module is an extension of the LabVIEW graphical development environment. Use LabVIEW to quickly create, build, and deploy applications for machine automation to

Windows CE.NET devices such as the TPC-2006. LabVIEW Touch Panel Module adds new technology to the intuitive LabVIEW environment for developing human machine interfaces (HMIs) on touch panel computers.

Remote Display Software

The TPC-2006 includes Remote Display software already installed on the TPC when shipped. To view the entire screen and interact through your PC with the embedded touch panel computer, simply install the free Host program and connect to the hardware. Then from the Windows CE.NET start menu, select the Remote Display application and enter the IP address of the Host PC. With the Remote Display functionality, you can quickly interact with the embedded touch panel hardware using your PC keyboard, mouse, and screen.

NEMA4 and IP65 Industrial Ratings

The NI family of HMIs – FPT-1015, TPC-2006, TPC-2012, and PPC-2015 – all feature a NEMA4 and IP65 industrial-rated front panel or bezel. When these systems are panel mounted in a NEMA4 or IP65 industrial enclosure, they are capable of withstanding the ingress of dust and water jets. The NEMA4/IP65 rating makes these systems ideal for harsh environments on the factory floor, in industrial plants, and for pharmaceuticals. NEMA is a U.S. standard set by the National Electrical Manufacturer's Association, and IP65 is a European standard set by the Institute of Petroleum that defines the levels of water and dust resistance of a product.

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Flexible Open Platform

Unlike message displays and graphics terminals, the TPC-2006 features an open, extensible architecture based on industry standards. Featuring Windows CE.NET and standard communication buses (RS232, RS422/485, USB, and Ethernet), it can be quickly and easily configured to address requirements beyond traditional HMI applications. When combined with the LabVIEW Touch Panel Module graphical development environment and rugged industrial programmable automation controllers (PACs), the TPC-2006 provides a fully integrated solution for machine automation and other industrial applications.

Typical Applications

HMI for PAC-Based Control Systems with Compact FieldPoint

The TPC-2006 provides an operator interface for all NI PACs, including Compact FieldPoint, CompactRIO, real-time PXI, and Compact Vision System. The TPC-2006 functions as the local HMI for embedded real-time control applications or distributed I/O with Compact FieldPoint or CompactRIO.

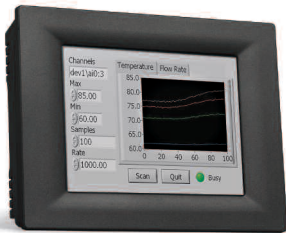


Figure 1. Touch Panel Display for Compact FieldPoint Connected over Ethernet

HMI for PAC-Based Machine Control Systems with CompactRIO

For embedded machine control systems with CompactRIO, the TPC-2006 is ideal as a local operator interface to provide input and feedback to the CompactRIO machine control unit. The TPC-2006 functions as the local HMI for CompactRIO.



Figure 2. Touch Panel Display for Embedded Machine Control with CompactRIO

Ordering Information

NI TPC-2006779561-01
Includes one LabVIEW Touch Panel Deployment License

Accessories

NI PS-5 Power Supply778805-90
NI LabVIEW Touch Panel Module779708A-09

BUY NOW!

For complete product specifications, pricing, and accessory information, call 800 813 3693 (U.S.) or go to ni.com/pxi.

Industrial Windows CE Touch Panel Computer

Specifications

System Components

Processor.....	266 MHz ARM9 S3C2410A
Memory.....	64 MB SDRAM onboard
Storage.....	64 MB flash memory onboard
Memory expansion.....	1 CompactFlash slot
I/O ports.....	3 serial (2 RS232 and 1 RS485); 2 USB 1.1 (1 host, 1 client); one 10/100 BaseT Ethernet
OS.....	Windows CE.NET 4.2
Watchdog timer.....	Programmable at 250 ms, 500 ms, 1 second

Display

Description.....	STN color LCD
Size.....	5.7 in.
Resolution.....	320 x 240 (256 colors)
Viewing angle.....	110 deg (V), 110 deg (H)
Luminance.....	201 cd/m ²

Touch Screen

Type.....	4-wire, analog resistive
Light transmission.....	>75%
Life.....	1 million activation minimum at single point

Power Requirement

24 VDC.....	0.5 A maximum
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Physical

Dimensions (h by w by d).....	148 by 195 by 44.4 mm (5.83 by 7.68 by 1.75 in.)
Gross weight.....	0.8 kg (1.76 lb)
Mounting.....	Panel (standard)

Environmental

Operating temperature.....	0 to 50 °C (32 to 122 °F)
Storage temperature.....	-20 to 70 °C (-4 to 122 °F)
Relative humidity.....	10 to 95% @ 40 °C (noncondensing)
Vibration, operating.....	1 g _{rms}

Safety and EMC/EMI Compliance

EMC/EMI.....	CE, FCC Class A
Ratings.....	NEMA Type 4, IP65

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