Technological Specifications

Processor Core-Modules & Memory:
- PXA300: 208MHz, 64MB DDR RAM, 128MB Flash
- PXA270: 312MHz, 64MB DDR RAM, 32MB Flash
- PXA310: 624MHz, 128MB DDR RAM, 512MB Flash

System RAM & Flash depend on CPU module
128kB onboard Static RAM with Battery Backup, for storage of application-critical values (with unlimited write cycles)

Onboard I/O Ports:
- 1 CAN bus interface, optically insulated (CANopen Protocol)
- 1 Ethernet 10/100 interface (TCP/Modbus)
- 1 COM RS232 + 1 COM RS232/422/485 (Modbus/RTU)
- 2 COM TTL from I/O connector
- 1 USB Host + 1 USB Host/Client (preset by jumper)
- 4 Analog Inputs (+3 Analog Outputs, accessible from side pin-headers)

LCD Display:
- 7" automotive, 800x480 LCD Panel, LED Backlight, dim-to-zero control
- Resistive Touch-screen (directly managed only by PXA270 and PXA310 modules)
- Generic 18bits TTL interface for general purpose LCD interface (max. 1024x768, with optional TTL-LVDS converter)

Power Supply:
- Extended range, DC 9~36Vdc
- Current: 300mA @ 24Vdc max. (with fully lighted LCD panel)

Temperature:
- Operation: -10°C/+70°C (with 7" LCD display); -20°C/+85°C (w/o display)
- Storage: -20°C/+40°C
- Humidity: 10~90% @40°C not-condensing

Dimensions:
- Board: 160(W)x105(H)mm
- TouchMover onto DIN-rail shell: 166(W)x111(H)x40(D)mm
- TouchMover Panel-Mount version: 240(W)x165(H)x30(D)mm
- Box for wall-Mount version: 224(W)x167(H)x80(D)mm

Manufactured and distributed by

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powered by
**TouchMover**

**SIMPLE AND EFFICIENT**

From CJB, a continued and friendly assistance which will never let you lose the communication link!

CJB’s DNA is “customization”. Since 1987, CJB designs and manufactures Digital Systems for Industrial Automation & Digital Signage, having in mind a unique target: partnership with customers. So, also for Machine & Process Control and Building Automation applications, CJB gives you a fully experienced support, and our flexibility which will help you integrating your custom solutions which will perfectly fit yours and your end-users needs.

**A TRUE IEC-1131-3 MICROCONTROLLER**

TouchMover® comes with Windows CE® operating system, where CJB pre-installs the Run-Time of CJB’s PowerPLC-Bridge® IEC-1131-3, eventually including the Bridge-SCADA® option (if HMI features are needed).

Hence, TouchMover® is a true Control + HMI system, ready for use, fully programmable and connectable to any commercial I/Os (Modbus, CANbus, local I/Os).

PowerPLC-Bridge® IEC-1131-3 is CJB’s Soft-PLC & SoftMotion engine, complying the IEC-1131-3 standards, which gives the most sophisticated design techniques for real-time applications, from most simple to most complex ones. A project designed with PowerPLC-Bridge® and running on a TouchMover® can also run on an x86 PC board, hence allowing a total portability of your projects and significant saving of development time.

And this is another “plus” of TouchMover®.

**FROM CJB A CONTINUED AND FRIENDLY ASSISTANCE WHICH WILL NEVER LET YOU loose THE COMMUNICATION LINK!**

**WHAT IS TouchMover®?**

TouchMover® is a true micro “Touch-PLC”, that is, at the same time, a micro-PanelPC and a Controller with SoftPLC & SoftMotion and SCADA features. It allows Control & Supervision for:

- Civil and industrial plants
- Machines
- Building Automation systems
- Vehicle tracking & onboard control
- Applications for energy plants and, generally speaking:
- Applications for Automation and Man-Machine Interface, even complex

**IT’S A TURN-KEY HMI/PLC/AXES-CONTROLLER**

It comes with onboard pre-installed PowerPLC-Bridge®/Scada engine, an exclusive design by CJB, with which you can easily design your own applications for PLC/Axes and Supervision (HMI). The full-optional version includes a bright 7” 800x480 LCD panel with touch, a nice die-cast front bezel, and a kit for panel mount (or for wall-mount, if used in Building Automation applications).

**GREAT FLEXIBILITY**

Inside electronics is made on two parts: a special carrier-board and a compact CPU core-module (scalable).

The board gives you 30 digital I/Os and 4+3 Analog I/Os, and also many communication ports: USB (2 ports, one host and another host/client), RS232/422/485 (3 COMs), CANbus (optically insulated), Ethernet. Thanks to these ports, TouchMover® makes the design of distributed control systems (with local or remote I/Os) very easy.

Power supply has a wide range (9~36Vdc) and also the working temperature has a wide range: -10ºC/+70ºC with LCD or -20º/+85º w/out the LCD. An onboard battery keeps the Real-Time Clock and the 128KB Static RAM for critical data storage, with unlimited write cycles.

**VERY EASY TO USE**

Just connect TouchMover® (through the Ethernet port) to a PC where CJB’s IEC-1131-3 “PowerPLC-Bridge™” is running. Design your application in an intuitive and flexible way. Use BridgeScada® if you also need graphic operator interface. Upload the project into TouchMover®’s Flash memory. Debug the project in real-time.

When all is fine, disconnect TouchMover® from your PC and you’re done! And all quickly, easily, and with significant costs saving!
FEATURES
TouchMover® is the perfect solution for all applications where you need:
• Low power
• Maximum compactness
• Extended temperature range
• Quick I/O attachment, thanks to COM ports, Ethernet, USB & CAN, and embedded protocols: Modbus, CANopen
• Easy integration of a distributed control system
• Battery operated system
• Easy Networking
• Graphics & Touch-Screen
• Scalable performance & cost
• Instant programmability (with pre-installed PowerPLC-Bridge® engine)

THREE VERSIONS
• Without LCD, in a plastic shell (107mm), for DIN-rail mount
• With 7" LCD for Panel Mount
• With 7" LCD for WallMount

CUSTOMIZATION
TouchMover®'s electronics can be customized in 2 ways:

1) Scaling CPU performance
Since the CPU is a core-module which snaps into a special socket on the main carrier-board, you can choose among 4 different versions: 200Mhz, 300Mhz, 500Mhz and 600Mhz with different sizes of RAM and Flash. So you can handle a wide range of applications, from an entry-level and cheap PXA300 (200Mhz) to a top performing PXA310 (600Mhz) and even use the new Tegra CortexA9 with 1GHz Dual-Core CPU. The power need is a few Watts, so you can even run it in hermetic enclosures.

2) Adding a piggy-back auxiliary board on top
The base board ("carrier-board") has been designed to host a custom board, which we generically call "AUX board", which can be custom designed by CJB for you. This AUX board, for example, can host conditioning, GPRS/3G/GPS engine for wireless communication, and anything you need. In fact, the AUX will get all the "rough" signals (COM and I/O) from below Carrier-board, and add all the necessary interface for conditioning. For example, we already designed the following AUX boards for some customers:
• Generic I/O
• Special interface for vehicle tracking
• X-ray control board

INSTALLING IN DIN-RAIL SHELL

WHERE IT CAN BE USED
(DISTRIBUTED) SYSTEM CONTROL

DOMOTICS & BUILDING AUTOMATION
Terminals (with and without graphics) for access & supervision in domotic & building-automation systems; access & security; environmental control & supervision; multipoint Internet access; local and distributed alarm & info communications.

VEHICLE TRACKING
Installed onboard vehicles, battery powered (12Vdc or 24Vdc), for vehicle status readout and tele-transmission through GSM/GPRS or 3G (with piggy back AUX board or external engine modules). Tracking, geofencing, fuel consumption control, supervision with operator interface, integration of navigation system, telephone & intercom features, real-time messaging.

HMI (HUMAN-MACHINE-INTERFACE)
Operator Interface with graphics & touch-screen for automation machines and processes, where a master controller is already installed, and you need a network of distributed access nodes: like assembly lines, manufacturing plants, industrial ovens, transfer machines. Compactness, low power and networking allow to use many TouchMover® systems in the same line, and each "node" allows easy interactivity with the global process.