Industrial Panel Computer

IPC A 10.4-XT

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IPC A is a general purpose Motorola MPC823 processor based information and control panel with Linux operating system. IPC A is especially designed for harsh applications, where it is exposed to extreme environmental conditions and where a high reliability is an absolute must. Typical installations include transportation, offshore and military applications.

IPC A is delivered with several temperature versions, XT, ET and ST. The modularity of the panel allows it easily to be tailored for various industrial applications. Several display, interface and component rating options are available.

IPC A has a Linux operating system with journaling, compressing JFSS V2.0 flash file system and Busybox shell & utilities. Standard C-Library (LibC) and DirectFB GUI library v0.9.x libraries and basic Unix utilities such as ps, ls, cp, sz, rz are supported.

Application SW generation takes place either with a standard GNU C/C++ cross compiler and a linker hosted on desktop Linux using an IPC API interface or utilising a graphical Panel Application Generator design and simulation tool hosted in Windows environment.

The electronics is housed in an IP 65 (at front) classified 150 mm deep steel enclosure. There are no moving parts in the panel. The heat dissipation is arranged through a convection cooling and IPC A Power Management System (PMS) protects the device against excessive temperature ranges.

SPECIFICATION

Interfaces

1 standard, up to 115 kbps serial asynchronous RS232 isolated interface
3 fast, up to 1,5 Mbps RS422/RS485 isolated serial links
1 Mbps isolated CAN 2.0B interface
1 isolated Profibus slave interface
Internal Ethernet interface for diagnostics and downloading purposes
Slot for Duagon ESD+/EMD MVB board
Multi-frequency gong / 8-bit wave audio to an adjustable > 2W 4 ohm audio output
4 status LEDs for immediate device status verification

Display

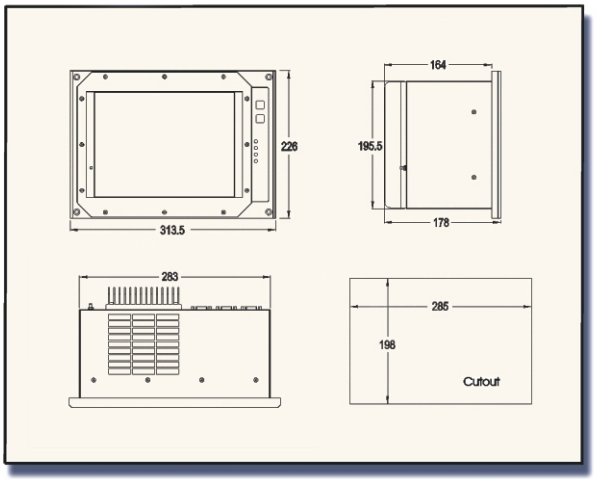
10,5" VGA TFT LCD display
Resolution: 640x480, 256 distinct colours from palette of 4096 colours
Contrast 250:1, luminance 500 cd/m^2
20 level manual/SW brightness control

Touch Screen

10.4" infrared sensor + controller
Resolution 4K x 4K
Scan rate: 25-50 scans per seconds

Technical Data

MPC 823 processor with internal display controller, additional PIC controller for auxiliary tasks
Operating temperature range -40C ...+70C (pre-heating to -25C), storage temperature range -40C ...+85 C
Real time clock with a battery backup
Memory: 16 MB SDRAM, 16 MB Flash, 512 bytes EEPROM, socket for disk-on-chip flash memory up to 1GB
Power supply: isolated, harsh environment 14,4 ... 154 VDC voltage input range PSU with 10 msec grace time
Power consumption max 50 W, typical 30 W



Panel start-up time less than 30 seconds above the pre-heating temperature

Mechanical Data

W=320mm, H=211 mm, D=178 mm (164 mm inside the desk), without connectors
Mounting cut-out 302 x 196 mm
Weight 10 kg
The panel front is IP65 (EN 60259) protected

Design Standards

EN 50155, EN 55011, EN 61000, EN 60068, ENV 50204

Options

Several LCD/EL display type alternatives available
Delivered either with a touch screen or with a customised membrane keypad
Interface options include Modbus, Ethernet and LON
External display controller
Various connector types available

Ordering reference

10136 IPC A 10.4-XT Industrial Panel Computer
10135 PAG Panel Application Generator

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