

## Compact and integrated 8" Display and Touch Panel PC

### General Description

The PIP with the integrated HD display is a highly integrated robust embedded "All-in-One" Panel PC with a special designed aluminum housing. The housing offers enough space to integrate a flash disk and extensions like mPCIe, XMC, PMC, or even RAID and UPS. The PIP product range offers, next to the common PC functionality, on-board features like 4 x RS232 (RS485), 6 x USB, 4 x LAN, and much more.

The PIP product range starts with single-core Celeron CPUs and goes up to Intel i7 quad-core. The specialty of MPL is low power consumption, allowing to operate the products without fan or ventilation holes. Unique is also that the PIP products can be operated with 9–36VDC / up to 110VDC. There is no need for internal cabling as everything is connected and ready for the customer. The PIP product is a real industrial solution, designed from scratch for rugged applications. The solution has great flexibility, helping to reduce the overall cost in your projects.

If the application requires a touch screen solution then this can also be integrated into the product without special wiring. The touch screen surface is hard coated and has the non-glare feature too.

### PANEL8 Highlights

Like all other MPL products the PANEL8 requires no fan regardless if a single core Celeron or a Quad Core i7 is installed. The solution is easy customizable and expandable for basically all customer needs and requirements.

#### Key features are:

- Space saving, integrated, All-in-One solution
- Silent, fanless design
- Broad choice of CPU power
- Optionally easy operation, navigation over touch screen
- Choice of various operating systems
- Operating temperature -30°C up to 85°C

All MPL products are fanless, shock and vibration proof, low power, rugged, and long-term\* available. The perfect solution for a system to be used in rugged environments.

\* Typically 10 years or more, 20+ years repairable



PANEL8 Solution used in Industrial Environment



PANEL8 Solution used in Vehicles



PANEL8 with M12 connectors

Dimensions: 270 x 162 x 82.5mm (LxWxH)  
Aluminum housing, Weight: 3.2 kg



All MPL products are 100% designed and manufactured in Switzerland.

MPL AG is an ISO9001 certified company

## Technical Features

### CPU Boards / Motherboards

Use of our reliable, long-term available Embedded Computer Boards out of the PIP Family.

All boards are well equipped and offer the standard interfaces on board.

CPU	PIP30 Family up to Intel i7 quad-core
Memory	Up to 16GB possible (depending on selected embedded CPU board)
Storage	Any SATA / mSATA drive can be used
I/Os	According the selected embedded CPU board
Expansion	mPCIe, XMC, PMC, PCI, PCI-104 (according selected embedded CPU board)

### LCD Characteristics

We are not aligned to a certain display type, therefore please ask us in case you have specific needs.

The below given values are from our used standard 8" LCD which is based on the Sharp LQ0803LW01.

Display Size	8" TFT LCD with white LED backlight
Active Display Size	174mm horizontal / 104.4mm vertical
Aspect Ratio	16:9
Resolution	WVGA 800 x 480
Color Depth	16.7M
Brightness	650 cd/m2
Contrast Ratio	800:1
Viewing Angle	horizontal 160° / vertical 160°
Backlight lifetime	10'000 hrs @ 25°C

### Touch (optional)

Type	Resistive Touch-screen (8-wire) / alternative capacitive Input can be done by fingers or with a pen
Surface	Hard coating, anti-glare treatment

### Housing Characteristics

Housing	Aluminum enclosure, internally chromated, externally powder coated
Mounting Options	DIN-Rail or flange mounting
Protection Class	IP65/NEMA4 compliant front bezel, please talk to us about your needs

### Power

Power Supply	12VDC input, optional: 9-36V / 18-48V / 63-110V DC input
Power Consumption	Display & Inverter typ. 2W, please add CPU board power consumption according data sheet

### Environment

Operating Temperature	-30°C up to +85°C (-22°F to +185°F)
Storage Temperature	-40°C up to +90°C (-40°F to +194°F)
Relative Humidity	10% to 90% non condensing

### Standard Compliance

The PANEL8 is designed to meet or exceed the most common standards. Particular references are:

EMC	EN 55022, EN 55024, EN 61000, MIL-STD-461E
Shock & Vibration	EN 60068
Environmental & Safety	EN 50155, MIL-STD-810-F, EN 60601, EN 60950
Approval List	CE, IEC 60945, IACS E10

MPL AG is an ISO9001 certified company

