

18.5" Panel PC for tough Environments flexible, universal, fanless All-in-One Solution

General Description

The silent, space-saving PANEL18 is designed to act as front-end interface for rugged, secure, or sensitive environments, where reliability and quality are key issues. The PANEL18 expands MPLs Panel-PC Family of compact, easy-to-integrate and multi-functional All-in-One solutions. The product is particularly designed and assembled for none standard environments. This includes but does not limit to meet EN50155, MIL-STD-810 and or IEC 60945. The "All-in-One" Panel PC solution combines a rugged 18.5" display with excellent optical and temperature specifications, an optional touch screen, and a complete range of low power CPU based embedded Single Board Computer (PIP & CEC) from MPL. It starts at an Atom Single Core up to i7 Quad Core.

PANEL18 Highlights

The front of the PANEL18 is IP65 protected with a joint free and hardened Schroff glass. On the back side, various PC interfaces are available (customizable connectors). Like all other MPL products, the PANEL18 requires for operation no fan. The solution is very flexible and expandable for basically all customer needs and requirements, regardless if it is GPS, Fieldbus, LTE, Bluetooth, or WLAN, just to mention just a few.

Key features are:

- Space saving, integrated, All-in-One solution
- Fanless design
- VESA / Wall / Panel mounting
- Wide choice of processor (Intel Atom to i7)
- Full High Definition display
- Operating at -20°C to +70°C
- Highly configurable and customizable to customers specifications

The robust and front IP65 protected PANEL18 is the ideal solution as man machine/front-end interface for harsh applications like in Railways, Maritime or any other tough applications. Further as it is space saving, fanless and noiseless, the PANEL18 is the ideal solution for cabinet applications in telecommunication, kiosk information systems in Railways as well as Internet access points.

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.



PANEL18 used in maritime environment



PANEL18 Solution with standard connectors



PANEL18 Solution with M12 connectors



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

MPL AG is an ISO9001 certified company

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Technical Features

CPU Boards / Motherboards

Use of our reliable, long-term available Embedded Computer Boards out of the PIP and CEC product range.

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

CPU	PIP30 Family up to Intel i7 or CEC10 Family up to Atom quad-core
Memory	Up to 16GB possible (depending on the CPU board)
Storage	Wide selection of HDD or solid-state Flash drive available
I/Os	Depending on the selected CPU board
	Specific interfaces like (Bluetooth, GPS, Fieldbus, LTE,...) are available on request
Expansion	Based on your needs, we can integrate even your custom boards

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 18.5" LCD which is based on the Sharp LQ185M3LW01.

Display Size	18.5" TFT LCD with white LED backlight
Active Display Size	409mm horizontal / 230mm vertical
Aspect Ratio	16:9
Resolution	FHD 1920 x 1080
Color Depth	16.7M
Brightness	400 cd/m2
Contrast Ratio	1500:1
Viewing Angle	horizontal 170° / vertical 170°
Backlight lifetime	50'000 hrs

Touch Screen (Optional)

Type	Capacitive touch screen
Surface	Hard coating, anti-glare treatment

Housing Characteristics

Front Panel	Powder coated milled aluminum frame with joint free, hardened anti-glare glass
Mounting Options	VESA or Panel mount
Protection Class	IP65/NEMA4 compliant front bezel

Power

Power Supply	12VDC (9-36VDC optional), any other supply voltage (48VDC, 110VDC..) is possible too
Power Consumption	Display typ. 21W, please add CPU board power consumption according data sheet

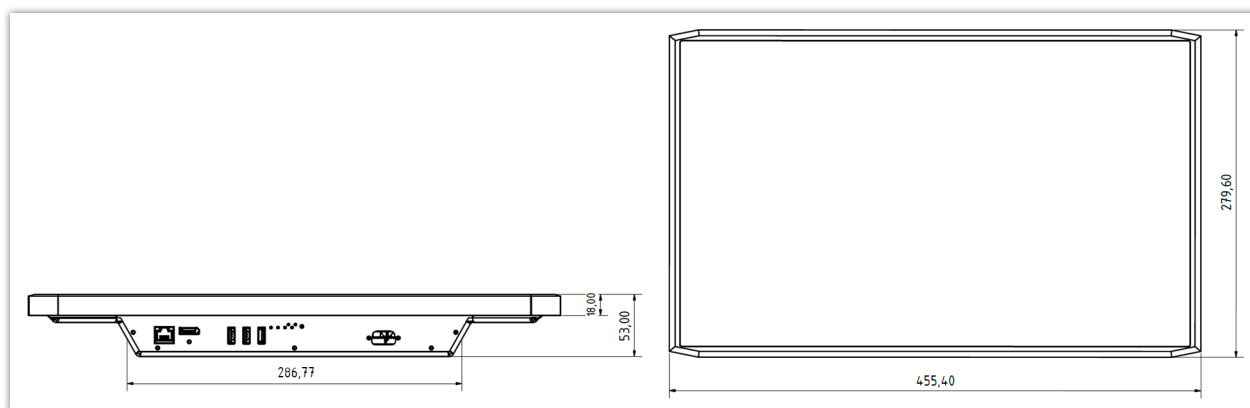
Environment

Operating Temperature	-20°C up to +70°C (-4°F to +158°F)
Storage Temperature	-25°C up to +75°C (-13°F to +167°F)
Relative Humidity	10% to 90% non condensing

Standard Compliance

The PANEL18 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