MASCHINEN-, ANLAGEN- ■ STEUERUNGSTECHNIK UND SYSTEMSOFTWARE GMBH ■

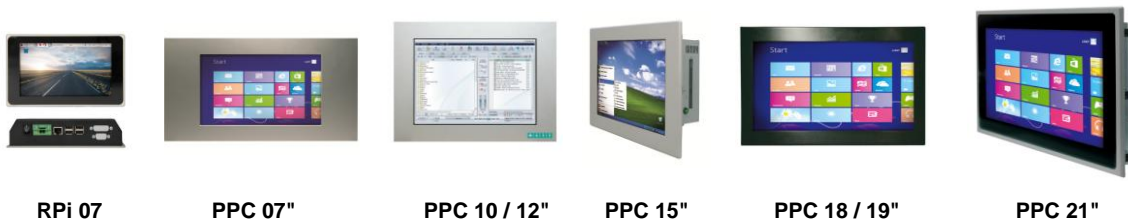## Intelligent computer solutions - designed for industrial applications

■ All-in-one PCs and operation/observation monitors

This product line consists of industrial PCs containing LCDs ranging from 5,7"-55" in diagonal; resistive- or multi-touch screens (PCAP) and singleboard computers with various Intel®- or AMD® processors. Also industrial monitors without a PC equipment is part of our program.
The robust housings are made from aluminium, steel sheet, die casting or stainless steel; designed to run in rough production surroundings.

| RPi 07 | SAC 10 | SAC 12 | SAC 15 | SAC 18 | SAC21 |

■ Panel PCs and panel monitors

These systems are equipped with 5,7" to 21" LCDs in the formats of 4:3 or 16:9. They contain a resistive or PCAP multi-touch screen and a singleboard computer charged with an Intel®- or AMD® processor. All components were designed for running at advanced temperatures, shock-proof conditions and 24/7 operation, available for at least 3-5 years. They may be completed by additional features. Their front panels are made from glass, aluminium or powder coated steel sheet to ensure water- & dust-proof protection (class IP65).

| RPi 07 | PPC 07" | PPC 10 / 12" | PPC 15" | PPC 18 / 19" | PPC 21" |

■ Industrial PCs in 19" racks (2 - 4 U)

MASS offers an aluminium or steel sheet housing containing a passive baseboard to be equipped with modern CPUs and peripheral boards on demand. Alternatively there are ATX mainboards available. Options: an 8,4" (touch)display, a membrane keyboard front or a keyboard drawer disposable. The systems are designed for advanced ruggedness, shock- and temperature features; they run at 24/7 operation and all components are long-time available. High grade fans, power supplies and robust mechanics ensure a long ranging lifespan. The O.S. will be installed according to client´s demand. Two housing dephts are available: 400mm (insertion in pivoting frames) or 480mm for standard control cabinets.

| IPC - 2U | IPC - 3U | IPC-FIO 4U (front I/O) | IPC-PICMG 4U | SER/D 4U (touchscreen) |

◾ Euroboard - Computers in 19" racks (3 U)

The boards of this series use the cPCI standard-bus. Another version is a low-cost single board computer consisting of a baseboard carrying an ETX CPU module. For choice there are several ETX boards of different performance. This baseboard does not need any bus in case of few I/O`s; it may be equipped with an ISA/AT96-bus connector to expand the system. Additional it may be completed by 5,7" oder 7" LCDs with resitive or a PCAP touch screen as well as some I/O-boards.

CPCI-CPU   **EBC-EBE + ETX module + LCD**   **EBC 19"** cassette   **EBC-KOM** communication system

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◾ Embedded Box Systems

In automation technology PCs often run all-around the clock 24/7; i.e. PC-based machine controls, data collection- or communication systems. These devices do not need an operator panel as they are installed in switching cabinets, boxes or directly inside of the machine. The systems are equipped with X86- or ARM single board computers. MASS delivers computer housings according to protection class IP54 or IP65. Our housing design ensures a modular configuration of all essential PC components and interfaces.

EBS-01   **EBS-02**   **EBS-03**   **EBS-KPC1**   **EBS-KPC2**

◾ Exceptional PC designs

This family of robust PCs with a remote or integrated operation and visualisation system was designed as retrofit package for car and truck applications, busses, fire department vehicles, pallet transporters, harvesters, construction machines or outdoor applications. They have to be cold- and heat-proof, fail-safe at vibration, shocks and voltage swing (see vehicle battery), and the display must be readable at sunlight as well as at night (anti-glare). Also a sudden power-down may not cause a system crash combined with a damage of the operation system. Finally handling of the major techniques of communication (WLAN, GPS, GPRS, Bluetooth etc.) are an absolute must.

We design customer-specific products even at a moderate number of items. To reduce construction cost we prefer to reuse parts from foregoing projects. That way prototypes are inexpensive and they often increase to repetition systems. Here are some examples:

All-in-one PC for vehicles   **Die casting housing with 15" touchscreen**   **IP65 housing with 12" LCD**   **Process measurement & control system 19"/4U**   **PC+camera+ speakers+card reader**   **SAC 55" for digital signage**

◾ Software / Tools / Add-ons

Being longtime OEM & embedded partner of Microsoft MASS configurates the O.S. and generates add-ons, develops client-specific software images or software made by our partners (i.e. Content Manager). We install executable software on CF, SSD or HD drives. We also take care of accessories: Keyboards (drawers), wall-mount brackets, system stands, special cables etc.
Please ask for an offer.