PERFECTRON is an expert who provides extended temperature fanless solutions. With years of experience, we have developed a complete and integrated extended temperature design principle. PERFECTRON strictly selects and tests those critical components at the very beginning, then optimizes the layout and power circuit to the utmost. Viewing the configurations and the power circuit placement of each model are different, which will lead to different extent of heat generation; therefore PERFECTRON designs tailor-made heat sinks for each motherboard. All the boards are tested to be able to operate effectively under harsh environments from -40 to 85°C without CPU throttling.

PERFECTRON, with deep insights into the embedded market, has strived to provide rugged solutions for all spheres. Over the years, we have expanded our client base to a broad range of industries. Mission-critical applications like aviation, space exploration, and defense mechanisms rely heavily on the reliability and sustainability of each component. PERFECTRON has developed a series of precision-aimed solutions in response to the critical needs of the ever-expanding embedded market.

Critical Components Soldering Onboard
To achieve high standards of shock and vibration demand, PERFECTRON’s embedded boards are designed with the key components soldering onboard to eliminate the risk of harm caused by vibration, including CPU, x8600 and XR-DIMM. This design enhances the resilience to shock and vibration and eliminates the concerns about failure connection caused by sudden impact. This solution is not only compliant with but surpassing the strict standards. PERFECTRON’s embedded boards are ready to meet all the unforeseeable rugged challenges.

Stackable Ruggedness PCIe/104 (StackPC) & FPE Expansion
PERFECTRON offers flexible options in terms of I/O requirements as well as different industrial applications. By utilizing onboard PCIe/104 and FPE expansions, users can instantly access a variety of features and simply build up an exclusive system based on users’ own requirements to cater diverse industrial usage. PERFECTRON has developed storage modules, expanded LAN module and PSU module that supports full compatibility with other off-the-shelf products in the market. PCIe/104 connector delivers exceeding solidity with its mounting holes which removes the concern about loosen connection caused by shock & vibration. The flexibility and ruggedness are exceedingly enhanced to adapt a diversity of needs in the vertical market.

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Supreme Extended Temperature Solution
PERFECTRON is an expert who provides extended temperature fanless solutions. With years of experience, we have developed a complete and integrated extended temperature design principle. PERFECTRON strictly selects and tests those critical components at the very beginning, then optimizes the layout and power circuit to the utmost. Viewing the configurations and the power circuit placement of each model are different, which will lead to different extent of heat generation; therefore PERFECTRON’s design teams make heat sinks for each motherboard. All the boards are tested to be able to operate effectively under harsh environments from -40 to 85°C without CPU throttling.
Rich I/O for flexibility in I/O configurations

OXY5737A embraces rich I/O that provides embedded system developers diverse flexibility in I/O configurations to meet different embedded applications. The rich I/O features multiple displays, 2 x DP and DVI-I display connectivity ports with dual channel 24-bit LVDS. The stackable expansion enables a cable-free board to build an extreme rugged and compact system with more expansion flexibility. This I/O-rich board also includes four RS232, two RS232/422/485, six USB ports, two Gigabit LANs, two SATAIII, all these can help system integrators to develop solutions quickly.

Stunning resistance of shock and vibration

OXY5535B has key components soldered onboard to eliminate risk of harm caused by vibration. It not only supports Intel® CPU onboard but also storage onboard and XR-DIMM which drastically enhance the resistance of vibration and shock. The stackable expansion slots, PCIe/104 (StackPC) and FPE (PCIe x 16) enable to expand more functions by adding on extra cards. The cable-reduced operation removes the concern about loosen cable connections and strengthens the robustness.