

Alliance creates the best defence

Eurotech and Blazepoint have recently pooled their defence sector expertise to produce a new robust and powerful tactical computer for the armed forces.

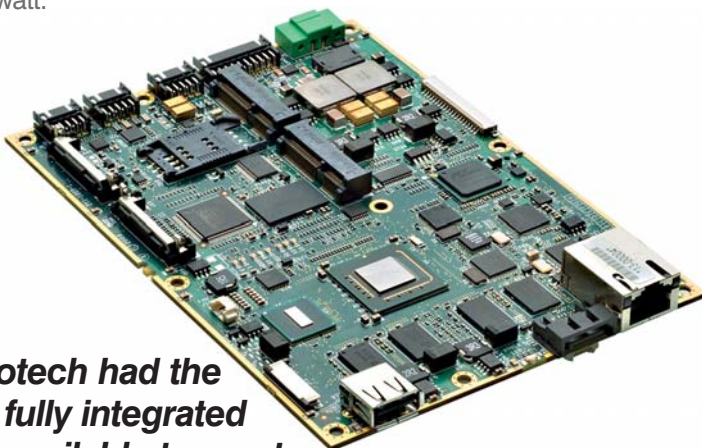


Eurotech and Blazepoint

The armed forces set very high standards for durability and reliability when specifying rugged computers to be used in the field. Warfare today requires a high degree of sophisticated technology and soldiers depend on the support of top quality equipment for their survival in hostile territory and often punishing terrain.

Blazepoint are leading developers and manufacturers of rugged computers and peripherals used for both defence and extreme commercial applications, offering extensive product engineering and testing capabilities in house. The tactical devices that they supply for the army's portable and vehicle mounted requirements are manufactured to withstand extremes of temperature, rough vibration and impact and pervasive dust. This includes their ndura RUGGED® range of rugged computers and peripherals, which is well known in both UK and foreign defence forces for total reliability under the most difficult working conditions.

These products can be adapted for the specific requirements of Blazepoint customers and a recent project for the defence sector has seen the development of a new version of the waterproof 8.4" ndura RUGGED® Tactical Tablet PC which uniquely incorporates 2GB of RAM for improved operational performance. An essential element of this device is the Eurotech PROTEUS embedded single board computer (SBC), which incorporates a low heat generation Intel® Atom™ Z530 Processor offering exceptionally high performance per watt.



“Eurotech had the best fully integrated SBC available to meet our requirements”

Rob Cook, Technical Director of Blazepoint, said that the product was based around the Eurotech board and was unique in the UK for the military market.

“The solution was based on the customer’s requirements and took nine months to develop. During that time we forged a close and highly successful engineering partnership with Eurotech, whose commitment went above and beyond our expectations. The high performance through increased RAM has been a major breakthrough with a great potential for future applications.”

Rob Cook, Technical Director of Blazepoint

Changing Conflicts

Developments in modern warfare were highlighted at the Chatham House Annual Defence Lecture in September 2009. Chatham House has been home of the Royal Institute of International Affairs for approximately 90 years and was listed as Western Europe’s leading think tank in a recent global survey. Its wide range of worldwide research interests includes projects relating to international security.

The Lecture was given by General Sir David Richards, Chief of the General Staff, and perceptively entitled “Twenty-First Century Armed Forces – Agile, Useable, Relevant.” The recurring theme was that the character of war was fundamentally changing.

“Globalisation is increasing the likelihood of conflict with non-state and failed state actors, and reducing the likelihood of state on state warfare,” he said. “State on state conflict will not disappear - but its character will change, becoming more asymmetrical, complex and mosaic.” Commenting on the flexibility that was required of armed forces today he stated that “how we deal with the threat posed by violent extremism, often embedded in dangerously radicalised states, will be an issue that will dominate our professional lives.”

In this conflict environment, companies that supply technology to the defence sector need to develop and

innovate with speed. Echoing this fact, Sir David stated: “Crucially, we need to fully understand and exploit the tools of information superiority. And when procuring new equipment, we should exploit the agility and timeliness symbolised by the Urgent Operational Requirement (UOR) process.”



The ndura RUGGED® Tactical Tablet PC is an information tool that is exceptionally versatile in the tactical environment. While needing to maintain confidentiality about its exact use, Blazepoint’s Rob Cook explained that its tasks could range from mapping information to targeting systems. “It is capable of numerous potential tactical military applications,” he said.

Military Demands

Blazepoint ndura RUGGED® products have been subjected to punishing conditions from the Bolivian jungle to the southern seas and their Tactical Tablet PC is manufactured to withstand demanding extremes of weather and rough handling. Measuring 200mm(H) x 300mm(W) x 55mm(D) and weighing only 3Kg, it can be carried by a soldier or mounted in an army vehicle.

The PC is Microsoft Windows XP Tablet and Vista compatible and meets an array of defence specifications that make it powerful tool in almost any conceivable theatre of war. These include the ability to operate in temperatures from +55°C down to -20°C and to withstand a drop of 1.2 metres onto solid concrete. The list of robust criteria continues – resistance to shock, vibration, sand, dust, humidity, rain and fluid contamination. The device is EMC protected and will also meet the USA’s stringent TEMPEST requirements, a set of classified standards for limiting electric or electromagnetic radiation emanations from electronic equipment.

The Eurotech PROTEUS fanless embedded board provides the flexible characteristics, high performance standards and reliability that make it the ideal rugged component for the ndura RUGGED® Tactical Tablet PC. The Intel Atom Z530 Processor delivers the benefits of Intel’s x86 architecture and is matched by a highly integrated Intel System Controller Hub combining a graphics memory controller and an I/O controller. The many uses of PROTEUS SBCs range from defence and industrial applications to driving the communications function of Personal Rapid Transit (PRT) vehicles newly introduced for Terminal 5 at Heathrow airport. It is also ideally suited to applications in healthcare, access control and many areas requiring human-machine interface.

This technological versatility is complemented by Eurotech’s expertise in embedded SBCs, industrial rugged computers and configurable systems for defence, transportation, communications and a range of other sectors. This includes the ability to carry out projects at speed, frequently to meet the MoD’s demanding UOR schedules. Committed to continual research and development towards innovative integrated solutions, Eurotech’s wide engineering experience makes it the ideal long-term partner for the designers of high technology products.

Rob Cook explained: “Eurotech had the best fully integrated SBC available to meet our requirements, but their involvement in helping us to custom design this version of the Tactical Tablet PC was critical in developing the correct solution for our customer.”

“While this solution has been developed for defence requirements, there could also be a potential for other rugged applications, such as in the oil and gas industries,” he added.

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