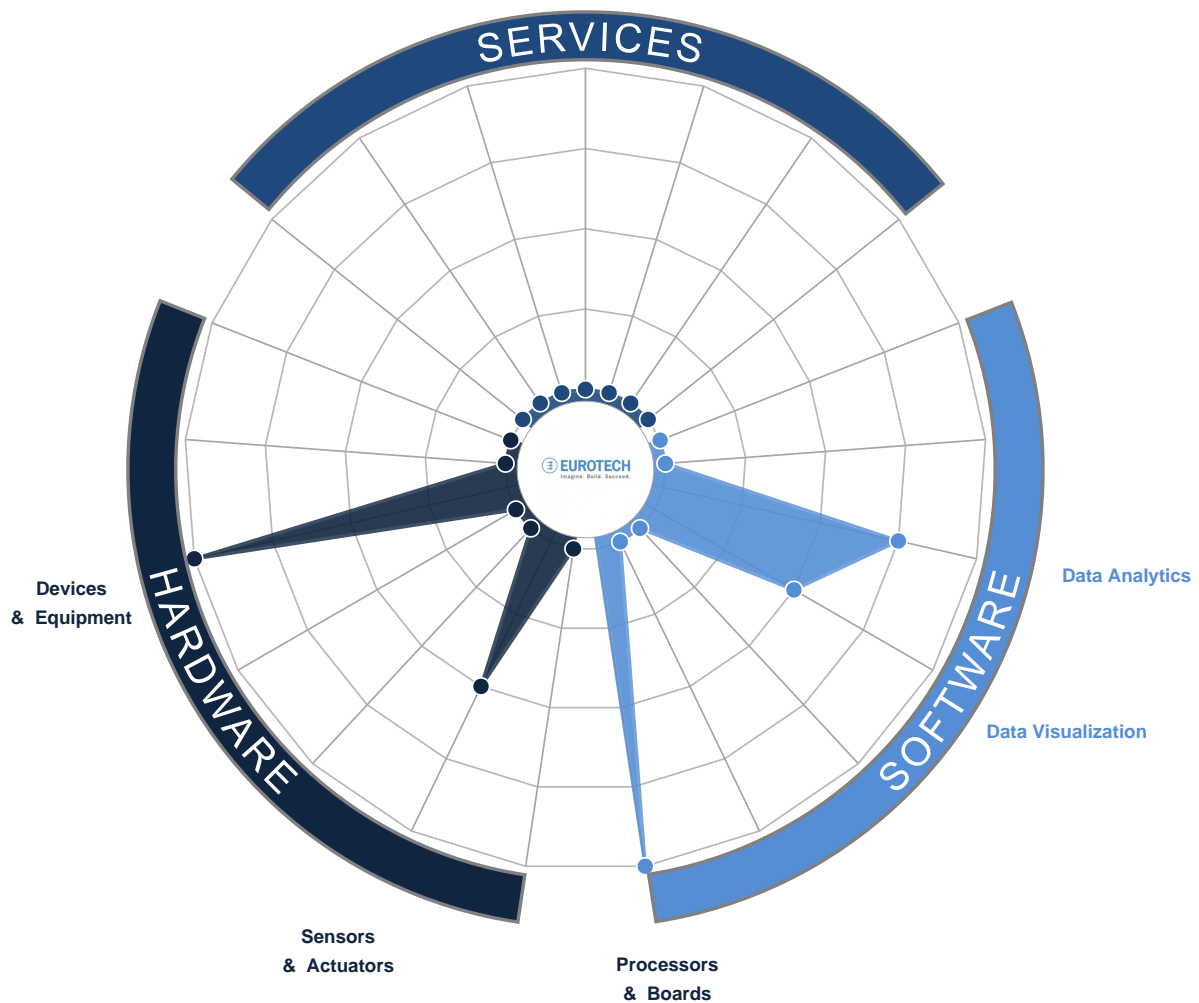




VIPER Aid to Acoustic Positioning



Overview

Applicable Industries



Shipping

Applicable Functions



Logistics



Product Development

Connectivity Protocols



Other frequency

Other Frequency

PC/104 (ISA)

Challenge

Applied Acoustics Easytrak Portable acoustic navigation system can undertake a wide range of tracking and positioning tasks for seabed mapping, towfish tracking and controlling robotic vehicles. It is also used to locate subsea divers, so is critical to the safety of personnel. To deal with difficult operating environment, a robust single board computer is required.

Customer

Applied Acoustics is a leading manufacturer of undersea positioning, tracking and sub-bottom profiling equipment. These systems are used in a wide variety of subsea commercial, military and environmental projects.

Solution

The Eurotech VIPER is an ultra low power fanless single board computer. The board runs on Windows CE software and communicates with the DSP to interpret target positioning and displays results on the 640 x 480 resolution LCD TFT Display.

Solution Assessment

- Type: IT
- Maturity: High (technology has been on the market for >5 years)

Hardware Components

- VIPER single board computer
- Digital Signal Processing (DSP) Board




- LCD TFT Display

Data Collected	Acoustic positioning data
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Solution Type	IT
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Solution Maturity	Mature (technology has been on the market for > 5 years)
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Operational Impact

-
- | | | |
|---|-----------|--|
|  | Impact #1 | System Flexibility - Ongoing application development and improvements are relatively quick and inexpensive to implement due to the system's flexibility. |
|---|-----------|--|
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- | | | |
|---|-----------|--|
|  | Impact #2 | Real-time Tracking - The location of individuals and assets can be identified in near real-time. |
|---|-----------|--|
-
- | | | |
|---|-----------|---|
|  | Impact #3 | Data Accuracy - for greater positioning accuracy. Greater positioning accuracy is enabled through the ports on the Easytrak console which allows it to interface with gyros and vertical reference units (VRUs) |
|---|-----------|---|
-

Quantitative Benefit

-
- | | | |
|---|------------|--|
|  | Benefit #1 | The system has a wide operating temperature, from -20 degree Celsius to 70 degree Celsius. |
|---|------------|--|
-

Technology

Hardware



Single Board Computer

Eurotech

VIPER is a low power PC/104 compatible single board computer based on Marvell XScale PXA255 processor.



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