

Frost & Sullivan Award for Product Line Strategy Leadership



AWARD DESCRIPTION

The Frost & Sullivan Award for Product Line Strategy Leadership is presented each year to the company that has demonstrated the most insight into customer needs and product demands. The recipient company has optimized its product line by leveraging products with the various price, performance, and feature points required by the market.

RESEARCH METHODOLOGY

To select the Award recipient, the analyst team tracks all end-user requirements and market dynamics within the industry. This process includes interviews with suppliers, end users, and industry experts. Product lines are then compared with customer-based demands and the top-ranking supplier is then presented the Award.

MEASUREMENT CRITERIA

In addition to the methodology described above, there are additional criteria used to determine the final competitor ranking in this industry. The recipient of this Award has excelled based on one or more of the following criteria:

- Introduction of new products, strategically positioned to balance the product line
- Ability to accommodate different market segments or different markets within an industry by repurposing technology
- Enhancement of product offerings through optimization of packaging, service, delivery, financing, and/or other value-added services
- Strategic technology or marketing acquisitions or alliances

AWARD RECIPIENT:

PHOENIX|X-RAY SYSTEMS + SERVICES

Phoenix X-Ray Systems and Services started its operations in April 1999. Since the time of its inception, Phoenix X-Ray Systems and Services has grown by leaps and bounds by the virtue of its strong product line offerings and by working closely with its customers.

Today, Phoenix X-Ray Systems and Services offers around 20 different types of products, ranging from a simple 2D inspection system to complex 3D tomography systems, which include microfocus and nanofocus systems with OVHM (Oblique View at High Magnification) and computer tomography (CT) capabilities. The product range starts with a very small benchtop unit, priced at approximately 50,000 Euros and reaching nearly 1 million Euros for computer tomography systems. This kind of a product line offers end users a good choice by providing various price performance and feature points required by them.

For example, some of the high-end solutions Phoenix offers in the market include the nanome x series that aims to provide very high resolution at submicron range. Resolution for nanome x products is known to be around 200 nm. One of the salient features of nanome x systems is that they come with an OVHM option and a computer tomography option.



Some of the applications of nanome x systems include detecting finest wire defects, pad wetting analysis on area array devices, and Flip-Chip substrate bond integrity.

On the other hand, Phoenix X-Ray Systems and Services offers X-Ray systems at microfocus range too, but obviously applications and prices vary and these products are offered at a slightly lower price compared to its nanofocus products. In terms of application, the microfocus range of products caters to the inspection needs of multilayer boards and inspects details in IC packages. However, again, it sometimes requires an IC to be inspected at the submicron level; and in such a case an x-ray system fitted with an open nanofocus tube from Phoenix adequately inspects fine bond wire cracks in IC packages. A typical application of microfocus products lies in BGA (Ball Grid Array) inspection, but in order to inspect joints and bumps of only 30-40 micrometers in diameter requires the usage of a product like nanome x. This kind of flexibility and versatility in its product offerings provide end users with a plethora of alternatives based on 'applications', 'price', and 'performance' requirements. With such a breadth of product offerings, these three important parameters are optimized for customers.

Phoenix X-Ray Systems and Services introduced 3D tomography products two years ago. This product offering includes the V tome x series which like any tomography system helps in detecting hidden solder defects, especially in multilayer PCBs (Printed Circuit Boards). Moreover, 3D tomography products from Phoenix come with the option of a nanofocus, however, with an additional payment of 18,000 Euros. The entire set of x-ray hardware is backed well by image processing tools that Phoenix offers, developed for convenient inspection of BGA and CSP (Chip Scale Package).

Phoenix's strength clearly lies in developing application-oriented products. Therefore, a strong product line gives it a competitive edge as customers consider Phoenix X-Ray Systems and Services as a one-stop shop for their various application requirements. In order to further strengthen its product portfolio, Phoenix works closely with its OEM customers to understand their needs better and try and provide customized solutions. Also, to build better performance capabilities into its products, it works closely with a physics institute in Germany on a joint venture basis.

An increased use in advanced packages in the electronics industry has increased demand for x-ray inspection equipment. The primary package that has had a positive impact has been the BGA, especially with surface mount devices, wherein x-rays can penetrate devices and view solder balls beneath the component. Increased usage of BGAs is expected to continue to be a major driver for this market. Phoenix X-Ray Systems and Services has been capitalizing on this trend and its product portfolio is well positioned to further strengthen its position in the market in the near future. Based on all the above mentioned factors, Frost & Sullivan considers Phoenix X-Ray Systems and Services a worthy recipient of the Frost & Sullivan Product Line Strategy Leadership Award.