

**2008 North American Explosives Detection  
Product Differentiation of the Year Award****RedXDefense, LLC**

Whether it is an improvised explosive device designed to kill a handful of soldiers or a large car bomb built to kill hundreds of people, the threat from explosive weapons is imminent. The relative ease of designing, producing and deploying explosive weapons makes them an increasingly popular choice for terrorists. Due to their popularity, detecting and countering explosive threats remains a Herculean task.

Many companies have brought explosives detection technologies to the market during the last seven years, but few have focused on actually countering the threat. A relative newcomer to the market, RedXDefense, LLC, has taken a new approach to explosives detection. The Rockville, Maryland based company has focused on the characteristics of the threat and the end-users' concept of operations (CONOPS) to develop and deploy the most appropriate technology for success. The result is the XPAK (eXplosives Particulate Analysis Kit) trace explosives detection system.

Designed with the enemy and end-users in mind, the XPAK has the potential to be the only detection system that can be employed to actively counter the risk of IEDs and other explosives threats. Using a novel detection approach, RedXDefense has differentiated itself from the market's major participants and is positioned to take advantage of the unmet needs that still exist for security professionals. For taking these steps in product design and bringing a more appropriate system to the market, Frost & Sullivan is honored to present RedXDefense, LLC with the 2008 Product Differentiation Award in the U.S. Explosives Detection Market.

**Product Differentiation**

The XPAK is much more than a differentiation from the norm in the explosives detection market. The technology and even the company, RedX, could be considered highly disruptive. Upon first inspection, the XPAK is visibly unique; unlike the handheld IMS (ion mobility spectrometry) systems that all resemble a "dust-buster", the XPAK looks like a rugged, intuitive system and in fact it is. The XPAK foregoes fragile, sensitive and complex sensors and electronics, instead employing a set of robust electro-mechanical devices to operate the system.

At the system's core is the concept of visual identification and recognition of explosives. The XPAK uses fluorimetric detection to visually highlight the presence of explosives under ultraviolet (UV) light. Within seconds a user can detect explosives and eliminate any false positives – darkened areas appear on the systems sampling baton in the presence of explosives, and a lack of darkening indicates the absence of explosives.

The XPAK can identify nitroaromatics, nitramines, and nitrate esters making the system more versatile than many of its competitors. Not only is the XPAK versatile, it is extremely intuitive and easy to use. The system is powered by standard AA batteries, requires no calibration, and no warm-up time; competing systems can take more than 10 minutes. The system's design and technology allows training time for use, maintenance and re-supply to take less than half a day.

Although the XPAK's specifications make it an impressive detection system, the real differentiator is price. At just over half of the cost of competing systems, the XPAK is much more affordable. The low cost of the system combined with the intuitive design, ease of use, and ruggedness gives the XPAK the potential to rapidly proliferate throughout the end-user community, increasing detection capabilities.

### Countering the Threat

To effectively mitigate the threat posed by explosives, detection systems must be focused on prevention not protection and response. Current systems are designed to provide protection, alarming in the presence of explosives, and response, identifying the type of explosives used in an attack. Trying to combat the threat at this level will not end in success.

The XPAK was the result of a product design approach based on a concept of actually countering explosive threats at their source. Termed the "Bookends" ©, RedX's strategy is focused on systems and methods for identifying bombers, bomb-makers, and bomb-making facilities rather than only on specific targets or weapon types. By focusing on where the real threat originates, RedX developed the XPAK. The system's ruggedness, ease of use, quick response time and affordability ensure that it will be widely deployed. By increasing the number of detectors in the field, security professionals have the ability to identify explosive weapons networks – preventing attacks from even occurring.

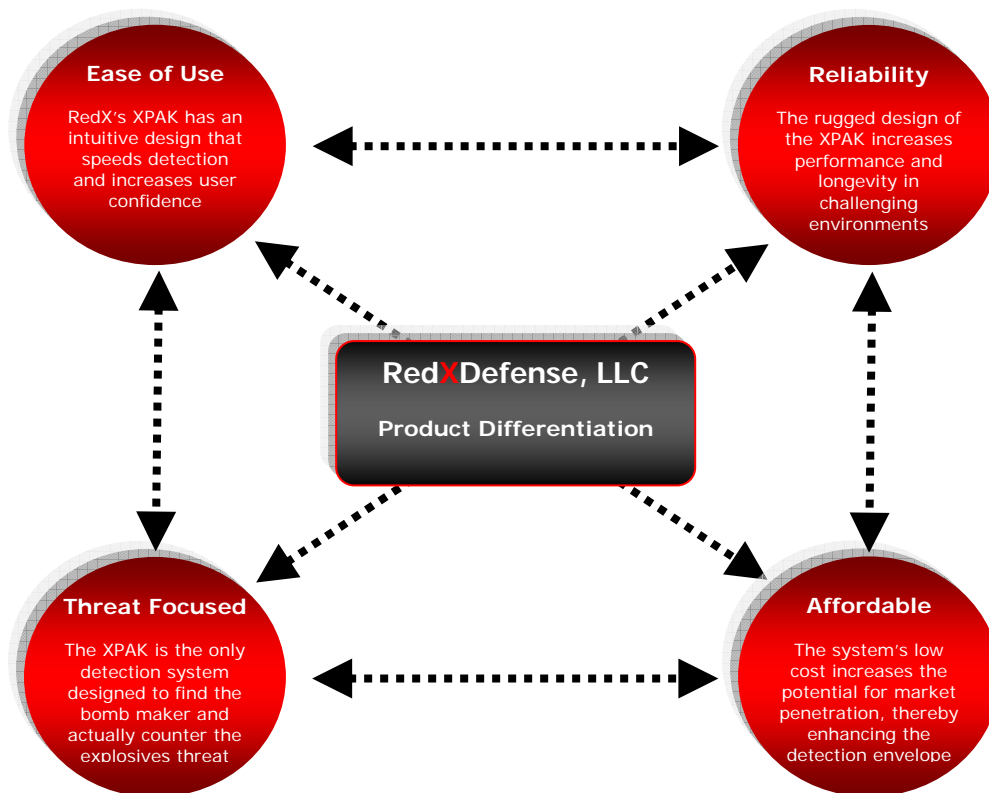
The XPAK is the first product to market for RedXDefense, but the company is also working to further develop the fluorimetric technology and "Bookends" © concept of counter-terrorism. Toward this goal, RedX has developed complimentary software management products (RedEXpert and XPAK Spotlight) and employed the XPAK technology in what it calls the XPro Kiosk. Entertaining, dynamic, and fast, the XPro Kiosk challenges old notions of security -- security is no longer what you suffer through; instead, the Kiosk makes security fun. In this way, they are designed to bring detection into the mainstream in a way that will enhance the public's experience and security, all without disrupting business continuity.

### Conclusion

By deploying these systems in a distributed network, security professionals can broaden the detection envelope and increase the probability of preventing an attack and identifying those elements that may be involved in future attacks. RedX is working to differentiate itself as *the* innovator in the explosives detection market; the process will take time and RedX will have to overcome conceptual challenges that have been ingrained in the minds of security professionals.

However, with its innovative technology and understanding of the threats and the market, RedX is well positioned for success. For these reasons, Frost & Sullivan is proud to bestow the 2008 Explosives Detection Product Differentiation Award on RedXDefense, LLC.

**Chart 1.1**  
**U.S. Explosives Detection Market**  
**RedXDefense, LLC Product Differentiation Metrics**



Source: Frost & Sullivan

### Award Description

The Frost & Sullivan Award for Product Differentiation Innovation is presented each year to the company that has best demonstrated the ability to develop and/or advance products with more innovative capabilities than competing vendors and products. This Award recognizes the company's successful adoption of new or existing technology that has become a part of its well-designed product family.

Such innovation is expected to significantly contribute to the industry in terms of product performance and degree/rate of technical change.

### Research Methodology

Before considering the recipient of this Award, the analyst team tracks competing market participants' product differentiation strategies through ongoing research. This research consists of market participant interviews, end-user surveys, and extensive secondary research. The data compiled through this research is analyzed based upon specific measurement criteria for this Award. Participants are then ranked with respect to the measurement criteria. Frost & Sullivan then presents the Award to the company that received the number one rank.

### Measurement Criteria

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

- Degree of differentiation innovation compared to other market participants
- Positive impact on sales directly related to product differentiation
- Time to market improvement based upon product differentiation strategy
- Benefit to end-users due to product differentiation
- Effect of product differentiation on ease of adaptability for new end-user applications
- Effect of product differentiation on market maturation

#### About Best Practices

Frost & Sullivan Best Practices Awards recognize companies in a variety of regional and global markets for demonstrating outstanding achievement and superior performance in areas such as leadership, technological innovation, customer service, and strategic product development. Industry analysts compare market participants and measure performance through in-depth interviews, analysis, and extensive secondary research in order to identify best practices in the industry.

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