

**A SYSTEM AND METHOD FOR CARGO SCANNING USING X-RAY
BACKSCATTER AND TRANSMISSION IMAGING TECHNIQUES**

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ABSTRACT

The present invention relates to a system (100) and method for cargo scanning using X-ray backscatter and transmission imaging techniques. The system (100) is integrated with both X-ray backscatter and transmission imaging techniques to scan a cargo unit in drive-through mode. The system (100) is able to generate multiple material discrimination images of the cargo unit from multiple perspective angles using both X-ray backscatter and transmission imaging techniques. The system (100) comprises two transmission source modules (110), two transmission detector modules (120), three backscatter sources (130), three backscatter detector modules (140), a controller (150) and processing modules (160).

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FIG. 1