



Explosive Trace Portals

Keeping America Safe

"As threats grow in complexity, we need to do more than simply x-ray bags and have travelers go through metal detectors. That's where explosive trace portals come in."

~Transportation Security Administration

Application:

The Transportation Security Administration (TSA) has deployed the latest technology to detect explosives. TSA has purchased Explosive Trace Portals, also known as "puffer" machines. At security checkpoints, passengers walk through portals similar to the walk-through metal detectors. Puffs of air are blown at passengers, and samples are then collected and analyzed for explosives. If the portal's alarm sounds, the passenger and his/her property are subject to additional screening. Once cleared, the passenger is free to continue boarding. The portals have been placed in numerous airports.

Key factors in selecting an Octagon single board computer:

- Reliability
- 24-hour operation
- Memory for data acquisition

Solution:

At the core of the trace portal is a custom version of the Octagon XE-900. The high-performance, low-power SBC is responsible for machine operation and spectrographic analysis. Samples taken during screening are analyzed for trace amounts of explosives. The spectrographic module is extremely sensitive and can measure concentration in the billions. These microscopic traces can easily be detected and identified, allowing for immediate security and safety measures.