

Legacy Military Avionics Test Systems Gain New Life with Modern Digitizer Technology from Vitrek

GaGe high-speed digitizers help aerospace and defense organizations modernize aging test platforms without costly full-system replacement.



Lockport, IL—May 7, 2025— Vitrek, a US-based manufacturer of high-end test, measurement and signal recording equipment, announced today that its **GaGe high-speed digitizers** are helping aerospace and defense organizations modernize legacy avionics test systems by replacing obsolete waveform acquisition hardware while preserving existing software, workflows, and validated procedures.

Many military test systems remain mission-critical decades after deployment, but aging digitizers, oscilloscopes, and custom instruments have become difficult to maintain due to calibration demands, unsupported interfaces, and scarce replacement parts. GaGe digitizers provide a practical

upgrade path with modern solid-state reliability, high-speed capture, deep memory, and custom software compatibility.

“For many defense programs, the challenge is not the test system itself—it’s the obsolete components inside it,” said Ken Ameika, VP Global Sales at Vitrek. “Programmable digitizers allow organizations to modernize critical hardware without starting over.”

In one recent application, a military customer replaced an obsolete 1980s-era box digitizer used in an avionics certification system with a programmable GaGe digitizer integrated into a rugged rackmount PC. A custom software layer replicated the original instrument behavior, allowing the legacy system to continue operating without modification.

Key Benefits for Defense Programs

- Extends life of proven test assets
- Reduce downtime and maintenance burden
- Preserve validated procedures
- Avoid costly redesigns
- Improve long-term supportability
- Sustain fleet readiness

The same modernization approach can be applied to radar, EW/SIGINT, communications, and other legacy defense electronics systems requiring high-performance waveform acquisition.

View the application note “[Modernizing Legacy Avionics Testing with High-Speed Digitizers](#)” here, or the whitepaper “[Oscilloscopes vs Digitizers: Choosing the Right Platform for Wideband Signal Acquisition](#)” here.

About Vitrek



Vitrek products are widely used in the aerospace industries, electric vehicles, medical, research and development markets, as well as by a wide variety of manufacturing industries. Vitrek product lines include a broad line of precision voltage generators and analyzers as well as hipot testers and switches. The Vitrek family of brands also includes: the MTI lines of capacitive measurement solutions for semiconductor wafer and precision film testing as well as jet engine balancing products; the GaGe digitizer cards which are recognized worldwide for combining high speeds with high-resolution and application flexibility.