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Upcoming Events

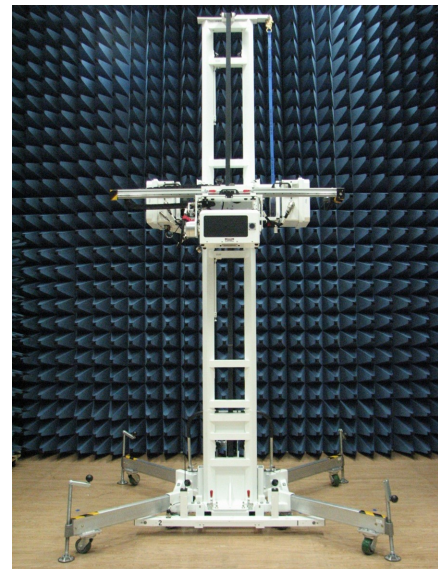
- [AUSA Annual Meeting](#)
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SCI-Xe-AC Modernization Upgrade

As we are rapidly approaching the end of the support period for our legacy SCI-Xe-AC product, we have already delivered modernized upgrades to extend their supportable lifespan. The sunset date for the legacy SCI-Xe-AC systems is December 31, 2022; however, through this modernization upgrade, customers with existing systems now have the option to gain improved performance, new functionality, and many more years of operational support. Driven by a customer desire to maintain their existing system processes, procedures, and historical data library we leveraged the core RF electronics from our InfiniScan product line to exceed these requirements.



Not only has the supportable life been extended and compatibility with historical data been maintained, but this modernization upgrade also significantly improves overall system sensitivity. Additionally, a fully refreshed software suite streamlines the operational workflow while providing an automated upgrade path of existing configuration data.

[Learn More](#)

Igniter Circuit Testing

Igniter Circuits are Mission Critical

Whether dealing with high-energy explosives or automotive airbags, the firing circuits, also called squib or igniter circuits, are mission critical.

***A rocket motor must fire when needed.
An airbag in a car must deploy when needed.
Period.***

To ensure an explosive device will perform reliably, its igniter circuit must be tested. However, due to the powerful and fast-acting nature of explosive devices, testing an igniter circuit is an inherently dangerous task. When testing igniter circuits, safety should always be the first and highest concern. Any inadvertent firing of such a circuit could result in catastrophe, including loss of life.

At Raptor Scientific, our igniter circuit tester design starts and ends with safety. By creating a test circuit where all the critical elements are redundant and failsafe, even if every active test circuit component were to fail simultaneously, the test current would never exceed 5% of a level required to detonate.

Complex Igniter Systems

In the defense industry, advanced weapon systems increasingly rely on cutting-edge technology to support the warfighter. As weapon systems grow in capability and complexity, so grows the challenge of safe and dependable testing. The old method of testing squib circuits on complex missile systems was a manual and time-intensive task. Test technicians worked from schematics to connect their single-channel tester to each circuit path. Testing a complex system with multiple circuit paths and resistance ranges, diodes, and broken wire checks took days to complete. It was both tedious and prone to human errors.

To solve this, Raptor Scientific developed an automated tester with multi-channel capability. Automating the circuit testing process saves time and money, and more importantly reduces the risk of human error. What was once a multi-day and multi-person operation, is now reduced to one test operator and a fraction of the time previously required. In some cases, a total missile system test can be completed in a few minutes.

Raptor Scientific's SQB line meets the needs of complex systems with hundreds of circuits using a single tester. We combine proven safety features, such as failsafe limited test current, with the safety of fiber-optic connection to the test controller.

In a fully automated test setup, the multichannel squib tester is connected to the test article via an adapting harness. A remotely located controller then takes over, automatically changing

circuit paths, test ranges and test functions through a predefined program. Test results are compared to pass/fail limits, logged, and stored or exported. Our SQB series programmable and multichannel testers are now used in production lines, at depots, and in the field.

Since 1979, Raptor Scientific has been supplying the US Navy with our single-channel portable igniter circuit testers. Along the way, we've added custom-built testers to meet the needs of specific ordnance projects, such as KMU, SFW and DLM. And with our SQB line of testers, Raptor Scientific safely brings automated missile system testing to programs such as THAAD, SM3, and SM6. [Contact us for more information](#)

Air Data Principles and Aircraft Pitot-Static System Troubleshooting

Technical training does not typically provide avionics technicians with a comprehensive overview of air data principles – and therefore questions may arise due to some confusing situations.

In this article, we will cover some answers to questions that are commonly asked by avionics technicians. This article is intended to help technicians testing aircraft pitot-static systems the basic air data principles and how to use the ADTS to troubleshoot them. Some air data principles can be confusing.



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