

For the mass spectrometer market Advanced Energy's high voltage power supply offers high resolution and reliability in a compact size

INDUSTRY

Mass Spectrometry

SOLUTION

AEQ and Xsolo

EQUIPMENT

Analytical
Instrumentation

CHALLENGE

Mass spectrometer manufacturers constantly face the challenge of rising customer expectations—broader mass-to-charge ratio range, heightened resolution, and enhanced reliability, all within an increasingly compact framework.

The biggest challenge for Advanced Energy in this project was to provide high voltage bias to the ion optics stage of a mass spectrometry system. In this situation the optics will move, direct and focus ions through the other key elements of system. The conditions for this to work are:

- +100 V, -100 V and +/-150 V, low power required
- Miniature form factor needed

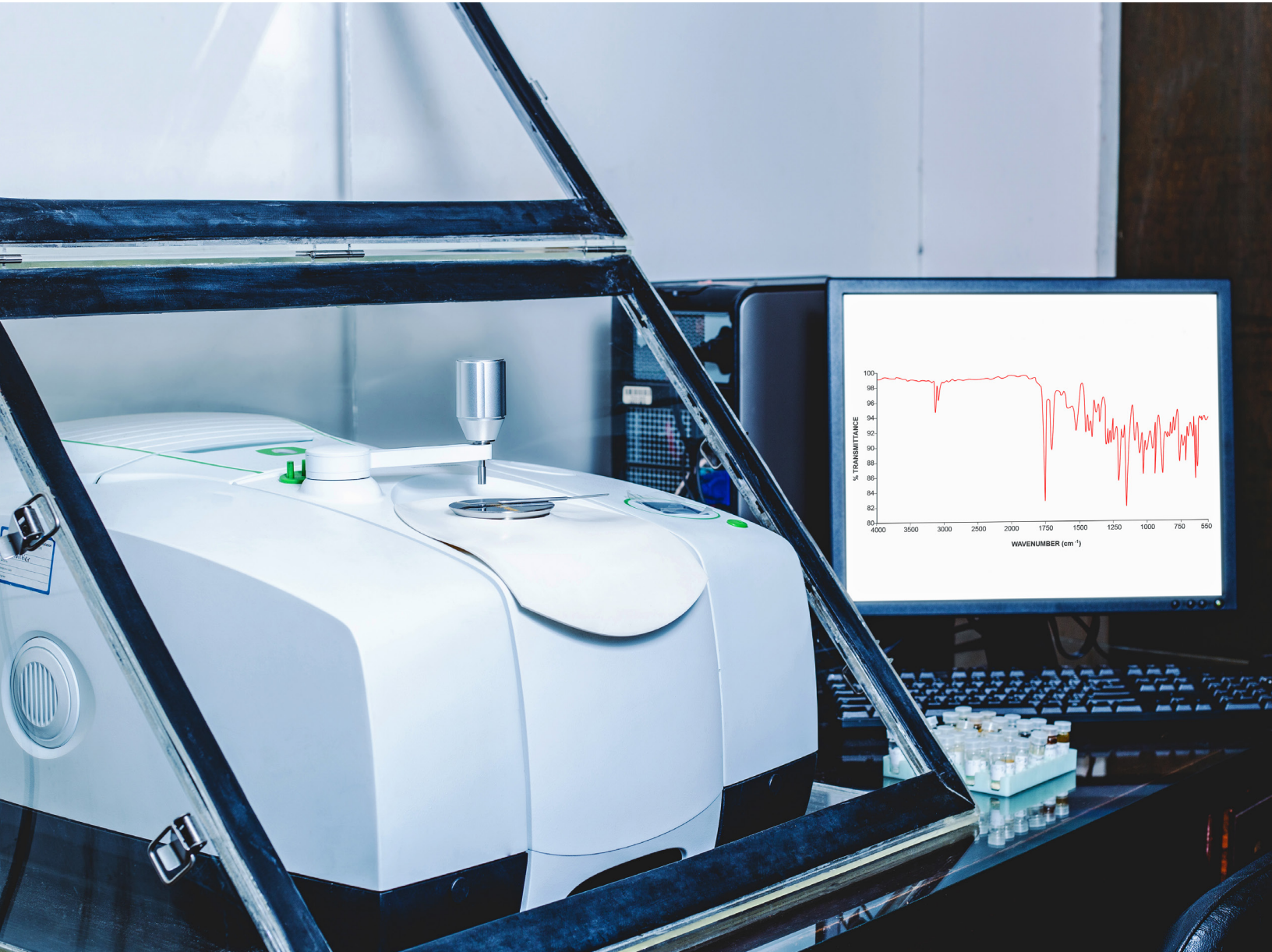
SOLUTION

In the intricate world of mass spectrometry, where precision, accuracy, and reliability are paramount, Advanced Energy's dedicated high-voltage power supplies for mass spectrometers offer unrivalled performance. AE proposed the UltraVolt® AEQ and Xsolo as possible solutions. More specifically the models that were recommended were AEQ5-150BP0.5, 0.1XS5-P0.5 and 0.1XS5-N0.1. The customer had the option to choose which locations in the system each of these supplies is best suited. The size of the AEQ makes it optimal for compact high-voltage projects.



RESULT

Advanced Energy UltraVolt platforms are selected because of their compact size as they are well-suited (in terms of specs) for the optical stage of a mass spectrometry application. Usage of single-output and dual-output UltraVolt supplies in the system simplified the control scheme for our customer. Advanced Energy is known in the industry for high reliability solutions in other high-profile and mission-critical mass spectrometry applications. We also offer numerous choices of micro-sized high voltage DC-DC products to fit various needs for the mass spectrometry market.



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