

UltraVolt HVA Series Required in Resistance Measurement System

INDUSTRY

Test & Measurement
High Resistance Bridge

SOLUTION

UltraVolt HVA Model
10HVA24-BP1

EQUIPMENT

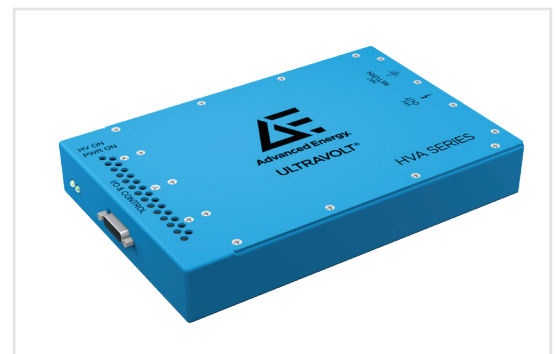
High-precision resistance
metrology instrumentation

CHALLENGE

The challenge for AE was to provide a compact, modular +/-10 kV/1 W high voltage amplifier to power the range extender module in a high resistance bridge measurement system. Since the customer's system is expected to be utilized by internationally accredited laboratories, the high voltage sources must be very stable, accurate and capable of facilitating extremely accurate resistance measurements. Slew rate was particularly important for the customer. Prior to this design the customer used an in-house discrete device for high voltage DC needs above 5kV. However, due to their excellent experience with UltraVolt high voltage amplifiers at 5kV and below, they chose to evaluate Advanced Energy's higher voltage models.

SOLUTION

The customer selected Advanced Energy's HVA Series, model 10HVA24-BP1 for this application. The high voltage amplifier, bipolar in nature, could provide the fast-reversing 10kV high voltage DC signal required to bias the range extender module accurately and reliably.

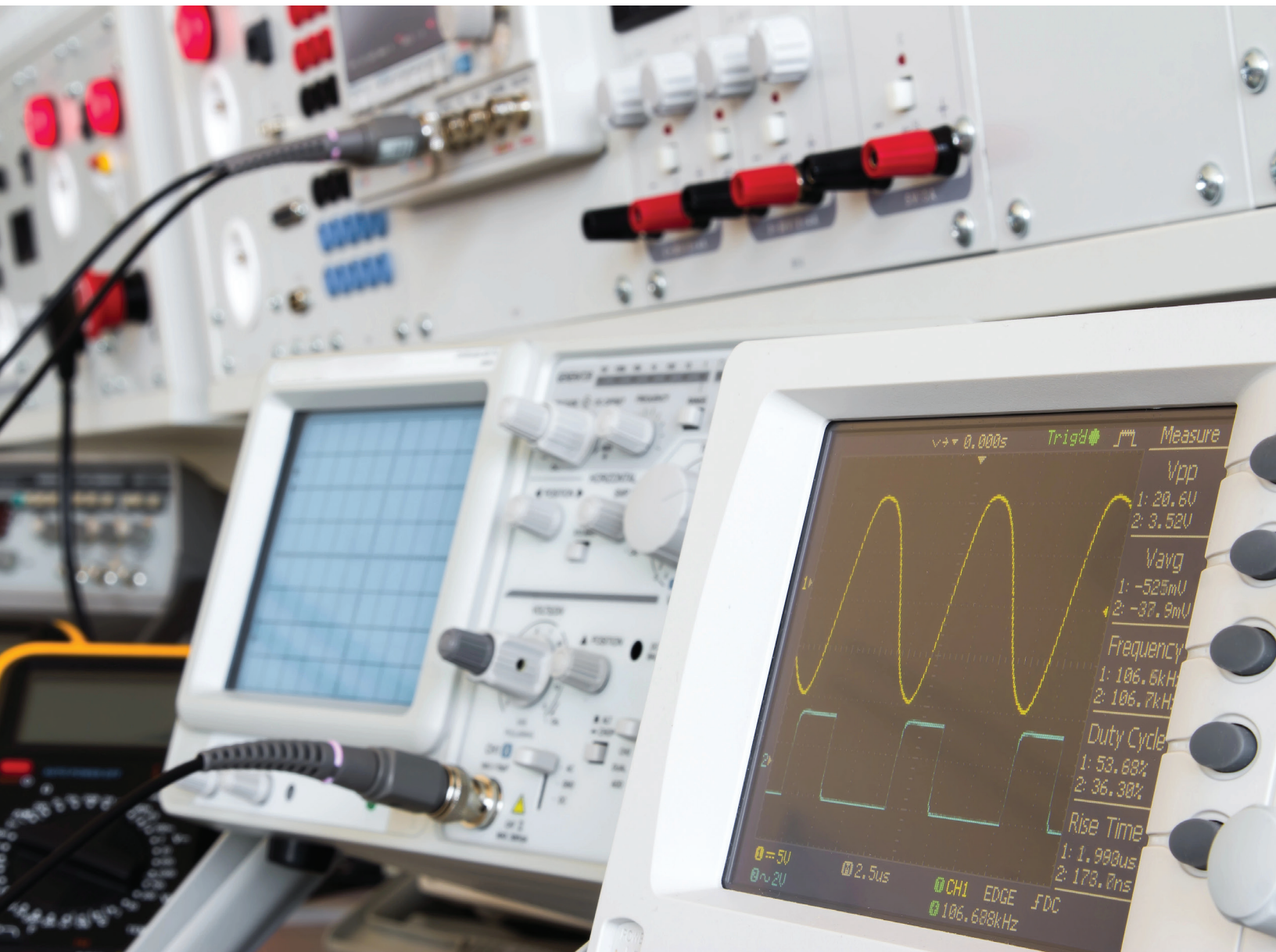


The HVA was an excellent choice for this application due in large part to these attributes:

- The HVA's fast slew rate.
- Compact, modular design was a good fit in the customer's system.
- The customer had utilized their own >10 kV solution which was not ideal for them and they were happy to select an OEM provider.

CONCLUSION / RESULT

Selecting a ready-made 10 kV product allowed the customer to focus more on core competencies, which meant faster introduction of the new system and facilitated exposure to a broader market. The customer was pleased with rapid responses in all facets of their relationship with AE, from initial contact, extremely fast responses to all technical requests and finally to the selection and delivery of a precision power solution. A well-stocked distribution channel gave the customer confidence that ample stock would be readily available when they went into full production. There is the potential for an upcoming 20kV version and they expect to work with AE in the future on this project.



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