

## Advanced-characteristic test platforms with interface standardization

Without test and measurement standardization, each project redefines and redesigns test tools including instrumentation, application-specific hardware and test software. While the measurable cost-increases consist of time and money spent on redevelopment, the immeasurable costs are reflected in inconsistent documentation, poor maintainability and dependencies on knowledge of specific resources.

Over forty years ago, Digalog Systems formed out of the newly created necessity to support production processes around the globe. Ever since, we have grown to continually employ improved electronics-test tools with proven methods to reduce the cost-of-test through standardization.



With the advantages of a reliable and mature mass-interconnect interface from Virginia Panel, Digalog Systems regularly designs and deploys advanced integration solutions capable of self-diagnostics, automated metrology and highly-leveraged test development. Here are typical examples of how advanced integration techniques, coupled with a VPC mass-interconnect, are utilized to meet objectives of remote maintainability, system scalability, cost and reuse for your test equipment solution;

- Use the mass-interconnect to present test resources to the device-under-test by including options related to safety, disconnect, protection, polarity selection, sense management, etc, thereby allowing all features to be self-diagnosed and calibrated automatically if desired.
- When price-points justify the design of a hybrid between custom and COTS resources, design an interface that accepts the COTS resources and then introduce circuits that offer price-savings, proprietary requirements and expansion capabilities. Software drivers should also be created that manipulate the custom and COTS integration in a repeatable and consistent manner.
- The ITA (Interface Test Adapter) is used to locate application-specific resources and manage tester resources for application-specific use. Another use for the ITA is for self-diagnostics when designed as an application that exercises all resources to specification. Finally, an ITA can be used for resource certification when designed as an application coupled with NIST certified meters that provides an ISO 17025 compliant certificate.

Test platform standardization techniques include a versatile, configurable and reliable massinterconnect and provides savings in both cost and time by enabling leveraged test development shortening MTTR (Mean-Time-To-Repair). With the foundation of these basic needs in place, the test engineer can be more effective by focusing on application-specific challenges. Ultimately, benefits are realized for everyone as each innovative advantage is added to the platform.