EVA100 Measurement System
and
Pickering LXI module Test Solution

EVA100 Measurement System

LXI Modular Chassis, Switch modules and EVA100 Measurement System

Integration with LXI Switch Modules
Versatile Instrumentation Modules

Easy Integration with LXI Switch Modules

Versatile Instrumentation Modules

Faster Test Development with Control Libraries

Improve Test Throughput

■Requirements for the test system

In recent years, the number of smart devices we use has increased significantly. The functionality of the analog/sensor ICs that power these devices plays a critical role in the end-user experience, including ensuring the security and safety of information.   More than ever, higher performance, tighter accuracy and greater reliability are required for those devices. In addition, the cost of test, especially in terms of test time, is critical. Using Programmatic Switching for Instrumentation will eliminate slow manual probing, resulting in faster and more reliable test results. That is why we partnered with Andor Systems Support (andor.jp) and Pickering Interfaces (www.pickeringtest.com) and their LXI Switching product family to enhance the capabilities of the Advantest EVA100.

■What's LXI Standard

LXI (LAN eXtensions for Instrumentation) is based on Ethernet technology for automatic control of external instrumentation and switching. Created and managed by the LXI Consortium (www.lxistandard.org), LXI is one of the most scalable standards for building complex test systems or managing long-distance test control anywhere in the world.

■Pickering Interfaces Ltd. LXI Products

Pickering Interfaces was one of the first companies to embrace the LXI Standard. With 15 years of designing LXI modular switching and simulation platforms, and over 50 years in test, Pickering has an extensive catalog of LXI solutions for test.
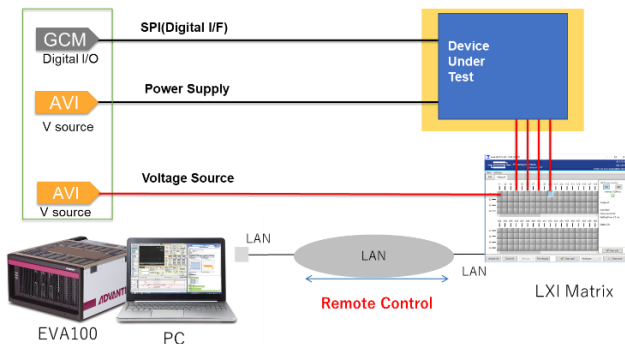

Fig1. Block Diagram of EVA100 and Pickering LXI Switch Module

■Control LXI Modules from EVA100

The EVA100 system can control its instrumentation and the LXI modules using Advantest developed user functions written in JAVA language. For instance, C++ (dynamic link library) or JAVA (.jar file) libraries for the remote control are always available on each instrument and we can control them by installing the dedicated software/Libraries.

■Switch Matrix example

Advantest EVA100 VI sources are connected to the appropriate test points by using Pickering crosspoint matrix . (Fig1)

  When configured correctly, the matrix provides connections for any instrument in the EVA100 to virtually any test point on the unit under test. The switching is performed quickly and repeatably. When we consider that the low-cost test solution using the precision VI source like the AVI module on EVA100, additionally needs to measure multiple channels on the device, using the LXI switch matrix is the most cost-effective way to test rather than developing new hardware or adding the multiple VI source.
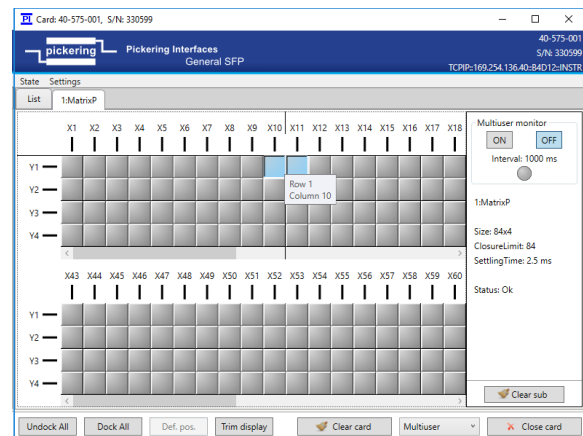

Fig 2. Front Panel of Matrix Module

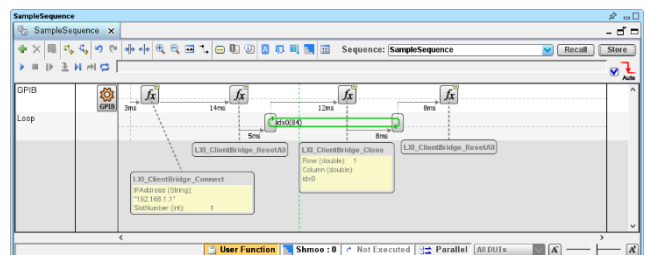EVA100 can control the Matrix by calling the matrix control function on the sequence editor.

Fig 3. Test Sequence

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