

Standard Interface to Enable Factory Automation

High volume manufacturing requires complex computer integrated manufacturing (CIM) environments. SEMI Equipment Communications Standard / Generic Equipment Model (SECS/GEM) is a communication and control protocol developed by SEMI. By using these protocols, host control design can be leveraged across a wide range of semiconductor manufacturing and test equipment. Advantest's VGEM interface provides a SECS/GEM automation solution to quickly configure equipment within a SECS/GEM manufacturing environment.

SEMI Standard High Volume Manufacturing Automation Requirements

VGEM is used with Advantest equipment to provide a SECS/GEM solution for high volume manufacturing (HVM). One of the key production metrics is reduction of operator input errors and efficient tester recipe management. Typical test operations require a large number of setup parameters, which are time consuming and error prone when relying on manual input. Additionally, there is a need for MES (Manufacturing Execution System) environments to have a clear

picture of testing status, to coordinate material management through the use of integrated robotic systems. VGEM maximizes accuracy and efficiency in the manufacturing environment.

Patented architecture supports single wire test cell connectivity and control

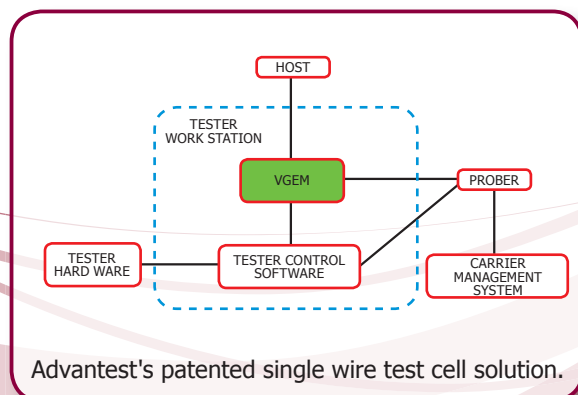
Using Advantest's patented design, the test floor operator is able to control the test cell via a single connection, rather than using separate prober and tester connections. This option is very popular with 300mm in-line manufacturing environments.

Available for full range of ATE equipment from Advantest

The VGEM automation interface solution is currently available for Advantest SOC, memory test, and burn-in tester equipment. Additional test equipment automation requirements can easily be addressed with VGEM's flexible architecture.

VGEM Features

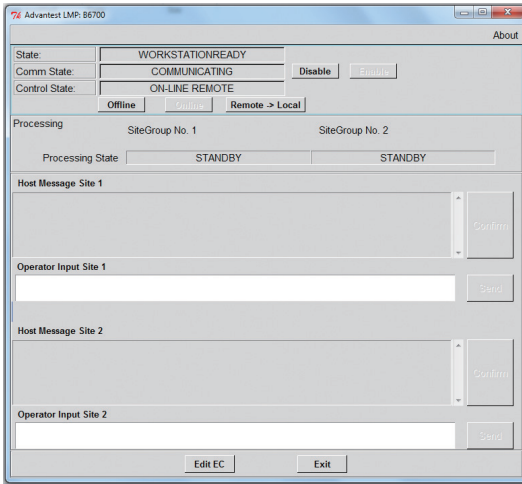
- SEMI Standards support
 - E5, E30, E40/94, E87
- Configurable state models
- Local status display
 - Customizable GUI
- Configurable data collection
- Support Test Cell customization



Advantest's patented single wire test cell solution.

Configurable to meet specific automation use cases

While the SECS/GEM environment is based on a set of standards, specific use cases are usually determined individually for each manufacturing environment. VGEM can be easily configured to meet these requirements. State models, user interface, and reporting can all be adjusted to meet specific design requirements. This ensures an effective interface with operations as required.



Sample VGEM operator interfaces - are dependent on equipment and operation requirements.

Experience and innovation combine to provide a proven SECS/GEM Solution

VGEM has been proven across a wide range of test equipment and validated by 3rd party compliance testing.

Ordering Information

To integrate Advantest's VGEM Software into your next equipment purchase, contact your local Advantest sales or support representative.

ADVANTEST

<http://www.advantest.com>

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