

## TGA Selftest/Calibration Module

- **Facilitates System Selftest down to Module level**
- **Plug in module for TGA Architecture<sup>1</sup>**
- **Used in conjunction with Selftest Software and Fixture**
- **Contains the circuitry required to provide selftest stimulus**
- **On board shunt used for selftest current measurements**
- **Helps minimise system “down” time**

The TGA selftest module is a key part of the system selftest option that Intepro provide with our test systems. Selftest is a critical facility to have in any volume production test scenario where system “down” time must be kept to a minimum.

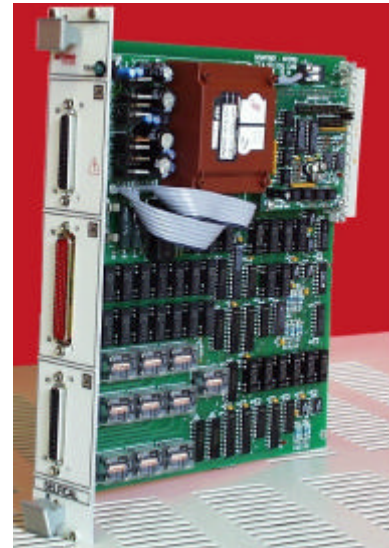
The Intepro selftest facility is designed to run a complete system selftest diagnostic in less than fifteen minutes typically. The selftest facility is designed to diagnose a failure down to the module level. In many cases it will even diagnose a failure down to the component level, for example; checking system free relays will test each individual relay in both the open and closed position and identify a specific faulty relay on a free relay module.

The components of the selftest option are;

- (1) Selftest Software Package
- (2) System Selftest Fixture
- (3) TGA Selftest Module

The system selftest fixture does not contain any active electronic components. Its purpose is to interconnect various parts of the system across the front panel. This is a key strategy of the Intepro selftest facility, use of a simple passive (wiring only) selftest fixture helps ensure that the selftest option itself is not prone to reliability problems.

The selftest software is structured in a modular fashion to check each of the “sub-systems” in the total ATE configuration.



For example a separate check exists for DC Sources, AC Sources, Loads, Relays and so on. The selftest software will setup the TGA selftest module to provide the relevant stimulus for each test block in selftest. Selftest will generally checkout the complete chain of modules involved in a sub-system. For example, checking a system AC source selftest will control the AC source driver card and (via the selftest fixture) connect the output of the source back to a suitable measurement unit and verify the programmed source voltage level. This verifies that not only is the driver card and AC source functional but that the wiring from the driver card to the source and the wiring from the source to the front panel is also operational.

It is recommended that selftest is run on the system on a regular basis, ideally at the start of each day. Selftest cannot verify the hardware to an accuracy that would insure it is within calibration. However, it does provide a confidence level that the hardware is operating correctly.

The TGA selftest module is designed for simple plug in insertion into a TGA backplane system ( low cost ) or into any standard VXI backplane.

Connection to the module is via two 50 Way D Type connectors. This facilitates easy insertion and removal from the ATE system.

