

**ISI ANNOUNCES THE RELEASE OF SEVERAL NEW QST TESTER PERFORMANCE UPGRADES**

SANTA CLARA, CA – September 20, 2011: Integral Solutions International, ISI, the world's leading manufacturer of Quasi-Static testers for the data storage industry, announced today the release of several new options and system upgrades.

**UPGRADE (Electronics) of QST-2002/QST-2002E to “PLUS” MODELS**

Customers can now upgrade their QST-2002 Tabletop (and QST-2002E Rackmount) QST Test Electronics to the latest generation QST-2002PLUS and QST-2002EPLUS testers. Upgrade includes the HSD-500 (High Speed Digitizer), with 500 Mhz digitizer sampling rate, improved measurement accuracy, 200Khz selectable AC coupling, and reduced test time of SMAN/SMANII tests for higher UPH. Upgrade also includes an improved USB interface and additional HGA/HSA/HDA test functionality when connected to Gen3-style frontend toolings. Upgrade allows for compatibility with the optional multi-channel PZT/uAct Capacitance Measurement Module.

**UPGRADE (Mechanics) of BLAZERX5 to BLAZERX6 BAR TESTERS**

As the slider contact pads get smaller, the positioning accuracy requirements increase in order to accurately contact these pads. ISI has responded with the BlazerX6 Bar tester, which includes a closed-loop positioning system and improved positioning stiffness along the probing axis. The BlazerX6 is also designed to be compatible with the Bar Quad-Pole Magnet option, FMRA-2008 FMR option, and RIA-2008 option, while retaining all the standard functionality of the previous-generation BlazerX5 Bar testers. With this offering customers can upgrade their Blazer-X5 Bar testers to the latest generation BlazerX6 testers instead of purchasing all new units.

**PZT/uACTUATOR CAPACITANCE MEASUREMENT MODULE OPTION**

As more and more customers deploy PZT/uActuator on the HGA suspensions there is an industry need to accurately measure these devices. ISI addressed this need by developing the PZT/uActuator Test Module. This module allows high accuracy capacitance measurement of up to 4 banks of uActuators at HGA, HSA, or HDA level. Requires Gen3 Universal Interface Board and Gen3-style HGA, HSA, or HDA tooling, and is only available with PLUS-style QST testers or upgraded non-PLUS QST testers.

**UPGRADE of ORIGINAL 1K Oe HGA/HSA/HDA MAGNET to 1.5K Oe**

For QST-2002 Tabletop testers, customers can upgrade their existing 1K Oe standard HGA/HSA/HDA magnet to 1.5K Oe, for higher maximum field and lower QPS duty cycles.

**HIGH-FIELD AUTO-Z QUAD-POLE MAGNET OPTION**

This is a customer-installable option for the QST2002-PLUS system for HGA and HSA testing. The Automated-Z High-Field Quad-Pole Magnet allows Hard/Easy/Angled Axis Fields of up to 3500 Oe, including electronic Field Rotation and automated Z-Adjustment to apply a uniform field to any HGA in the Head Stack Assembly.

**GEN3 UNIVERSAL INTERFACE BOARD**

This is a new 3<sup>rd</sup> generation Universal Interface Board with improved 200 Mhz analog bandwidth, additional HSA/HDA pin-connection interfacing, and compatibility with the multi-channel PZT/uAct Capacitance Measurement Module. This board has built-in 30Mhz, 80Mhz and 150 Mhz Low-Pass Filters with one optional plug-in filter slot for customer defined Low-Pass Filter (ex. 200Mhz plug-in filter is available). Compatible as an upgrade for existing QST-2002/QST-2002E systems, and standard on QST-2002PLUS/QST-2002EPLUS systems.

**GEN3 HSA/HDA TOOLING**

This is a new 3<sup>rd</sup> generation HSA/HDA tooling with improved 200Mhz analog bandwidth, additional pin-connection interfacing, and compatibility with the multi-channel PZT/uAct Capacitance Measurement Module. The tooling can optionally be ordered with 200 Khz AC Coupling for lower frequency component characterization. Upgrade of Gen2 HSA/HDA Toolings to Gen3 is available.

**GEN3-B 2xHGA TOOLING BASEPLATE AND GEN3 2xHGA FIXTURES**

As TMR HGAs get higher resistance and additional integrated devices (with 7 or more contact pads), ISI has responded with its 3<sup>rd</sup> generation HGA Interface System. This system includes dual-channel connection to up to 6 integrated devices per HGA (specifically MR, WR, FHD, AUX1, AUX2, and AUX3 connections), more than 40% lower AC-channel baseline noise and significantly improved AC-channel frequency response with high MRR heads, MR Bias Pulsing circuitry, PZT/uAct Interface support, improved device-isolation testing, and Gen3-B Bar Compatibility. This system is backwards-compatible with existing Gen2 2xHGA Fixtures, but for full measurement capability we recommend using the new Gen3-version of 2xHGA Fixtures. Available for QST-2002, QST-2002PLUS, and QST-2002HF High Field Testers.

**GEN3-B 2xBARINTERFACE BOARD**

As the sliders get additional integrated devices, with 6 or more contact pads, ISI has responded with its 3<sup>rd</sup> generation Gen3-B BarInterface Board. This frontend electronics board includes dual-channel connection to up to 7 devices per slider, MR Bias Pulsing, optional PZT/uAct Interface support, improved device-isolation test functionality, and Gen3-B HGA compatibility. Available for BlazerX5 and BlazerX6 Bar Testers, and for QST-2002RT Reliability Testers.

**2<sup>nd</sup> GENERATION 75ohm INTERMEDIATE RD BOARD FOR BAR TESTERS**

ISI has released its 2<sup>nd</sup> generation low-noise 75 Ohm terminated frontend preamplifier with improved W/R Recovery and ~4% lower AC noise baseline vs. the previous 75 ohm board, and ~45% lower baseline noise than the original 50 Ohm board. Can be ordered with either 3Mhz (standard) or 200Khz (optional) AC Coupling.

**About ISI**

Integral Solutions International (ISI) is a privately held California based US Corporation, established in September 1995. ISI provides worldwide customer support from the United States, Japan, Korea, Singapore, Malaysia, Thailand, China, and Hong-Kong.