TS-720 SYSTEM

GBATS CORE FUNCTIONAL TEST SYSTEM WITH BOUNDARY SCAN

- Preconfigured, cost effective, basic functional test platform with boundary scan for general purpose test / ATE applications
- Integral, high density interface
- Compact platform – ideal for bench top test configurations
- PXI architecture accommodates both 3U and 6U modules
- Wide selection of standard options minimizes delivery time and costs

SYSTEMS & TURNKEY

DESCRIPTION

The TS-720 GBATS (Geotest Basic Automated Test System) is a preconfigured, modular test platform which provides basic functional test and boundary scan functionality for production, depot, and repair facilities. Based on Geotest's GX7102A PXI platform, the TS-720 platform offers test engineers a preconfigured, compact, 3U / 6U system which can also be enhanced with a variety of options for supporting complex analog, digital, and mixed-signal test applications. The system comes with a high pin count, cabled interface – making it ideal for supporting box level products such as LRU, sub-system assemblies, and system level assemblies. The TS-720 platform is also available with Geotest's ATEasy software, which provides an integrated and complete test executive and test development environment, allowing users to quickly develop and easily maintain test applications.

FEATURES

The TS-720 consists of a preconfigured, core system which provides the basic infrastructure for testing analog / digital devices or systems. The system includes user power, switching, basic analog / digital instrumentation and a boundary scan controller with interface POD which supports four Test Access Ports (TAPs).

TS-720 CORE SYSTEM CONFIGURATION

The core system includes the following test resources and capabilities:

- GX7102A 14-slot, PXI chassis with (6) 6U and (7) 3U peripheral slots
- 960 pin, high density, zero insertion force, iCON style UUT interface providing access to all core and optional system resources
- GX7920 Embedded controller with Windows XP
- Analog / Digital PMC module: 8 general purpose differential analog inputs, 4 analog outputs, and 8 adapter ID inputs
- GX6377, multi-function relay / matrix card
- GX7404, power interface & prototype card
- SMX2040 6.5 digit DMM
- GX5733, 128 channel digital I/O card
- JTAG JT 3717 PXI controller and QuadPOD
- (2) 3U and (6) 6U PXI slots for additional system resources

TS-720 DIGITAL OPTIONS

Dynamic Digital instrumentation options include:

- GX5280 or GX5290 series digital cards, supporting vector rates up to 200 MHz and up to 96 channels

TS-720 ANALOG AND SWITCHING OPTIONS

Analog source, measure, and switching options for the TS-720 system include:

- GX1110 Arbitrary Waveform Function Generator
- GX2472 Dual Channel Digitizer
- GTX2200 series Counter / Timer
- GX1838 precision multi-channel DC source
- GX7400A dual output, programmable power supply
- GX6616 high density matrix card
- Gx6315 high current relay card
- GX6384 switch matrix (replaces GX6377)

The TS-720's UUT interface employs a unique design approach which allows customization of the system using any of the described instrument options, without incurring the cost and design time typically associated with a customized functional test system. The resulting benefit for the end user is a test system that is cost

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effective and easily configured for a specific application(s), using off the shelf components and modules. In addition, an additional (optional) iCON interface connector can be installed, providing additional interconnects to other system resources within the PXI chassis or to external resources such as GPIB instrumentation. This connector can be configured for power, signal or coaxial connections – providing the user with a range of options for supporting additional types of instrumentation.

SYSTEM SELF-TEST

The TS-720 is delivered with a system self test which includes an interactive self-test software procedure as well as a self-test adapter. The self-test verifies functional integrity of the system and resource connections to the test system interface.

APPLICATIONS

- LRU, sub-system and system level functional test
- Production test or repair of modules and systems
- Bench top ATE
- Combinational functional and boundary scan test applications, CPLD programming, flash programming

SPECIFICATIONS

MAINFRAME ELECTRICAL & MECHANICAL	
MAINFRAME	GX7102A 6U / 3U PXI chassis (6) 6U & (7) 3U peripheral slots
SYSTEM CPU (EMBEDDED)	Pentium®M 1.4 GHz , single slot 6U Core 2 Duo, 2..16 GHz – single slot 6U , optiona
CPU MEMORY	1 GB 2 GB - optional
SYSTEM HARD DISK	160 GB
CPU INTERFACES	RS-232, USB, 10-Base T, 100BaseT, 1000BaseT, PS2, VGA
UUT INTERFACE	Virginia Panel iCON, 960 pin interface Additional 220 pin interface available (option)
INPUT POWER	120 / 240 VAC, 20 A, 50/60 Hz
ANALOG / DIGITAL PMC RESOURCE MODULE	
GENERAL PURPOSE ANALOG INPUTS	8, differential inputs, 16 bit resolution Input impedance: 1 M ohm +/- 2.5V, +/-5V, or +/- 10 V full scale Aggregate conversion rate: 300KS/s, max DC accuracy: +/- 4.2 mV, 10 volt range +/- 2.8 mV, 5 volt range +/- 2.0 mV, 2.5 volt range
GENERAL PURPOSE ANALOG OUTPUTS	4, single ended, 16 bit resolution +/- 2.5V, +/-5V, or +/- 10 V full scale Load: 3 ma max. per channel Generate arbitrary and function wave-forms Sample rate: 400 to 300 KS/s per channel DC accuracy: +/- 3.0 mV, 10 volt range +/- 2.2 mV, 5 volt range +/- 1.7 mV, 2.5 volt range
DIGITAL I/O (CAN BE USED FOR FIXTURE ID FUNCTIONALITY)	8 bit, TTL compatible Configurable as inputs or outputs (byte-wise) Sink / source: 20 mA per line
INSTRUMENTATION RESOURCES	
DIGITAL MULTIMETER	SMX 2040, 6.5 digit DMM
SWITCHING	GX6377, multi-function relay card. In-cludes dual 16x2 relay matrix, (5) 10 amp Form A relays, (4) 2 amp Form A relays, and (4) 2 amp Form C relays.
USER POWER	GX7404,power interface and prototype card. Four switched, DC power outputs: +3.3V, +5V, +12V, -12V. On-board proto-typing area for custom circuitry.
DIGITAL I/O	GX5733. 128 channel digital I/O card. 96 LVTTL digital channels. 32 bit configurable port accepts one GX5733 I/O module for customized input / output levels..
BOUNDARY SCAN INTERFACE	JT 3717 PXI controller. Includes JT 2147 QuadPOD, four-port JT 2148 transceiver and four JT 2149 TAP PODs. Controller resides in the TS-720 and the QuadPOD assembly is located external to the test system. Maximum data rate is 40 MHz.
ENVIRONMENTAL	
OPERATING TEMPERATURE	0° C to 50° C
STORAGE TEMPERATURE	-20° C to 60° C
RELATIVE HUMIDITY	90%, non-condensing
ALTITUDE	30,000 ft
WEIGHT	36 lbs
SIZE	6U (10.5")H x 17.6"W x 23"D

ORDERING INFORMATION

TS-720	Core Functional Test System with Boundary Scan
OPTIONS	Contact factory for specific options / configurations