

# TS-730 SYSTEM

## GBATS MIXED-SIGNAL TEST PLATFORM

- Preconfigured, cost effective, test platform for mixed-signal test 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



## DESCRIPTION

The TS-730 GBATS (Geotest Basic Automated Test System) is a preconfigured, modular test platform which provides mixed-signal test capabilities for production, depot, and repair facilities. Based on Geotest's GX7102A PXI platform, the TS-730 platform offers test engineers a preconfigured, compact, 3U / 6U system which can address both performance digital and baseband analog test applications. The system comes with a high pin count, mass termination interface – making it ideal for supporting both box level and sub-system level assemblies. The TS-730 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-730 consists of a preconfigured, core system which provides the basic infrastructure for testing analog / digital devices or systems. The system includes user power, switching, analog instrumentation and dynamic digital instrumentation – providing the capabilities to address A to D / D to A, baseband, and digital functional test applications.

## TS-730 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

- GX6616, relay matrix card supporting both single ended and differential signal switching
- GX7400A programmable power supply with two 0-30 volt programmable modules
- SMX2040 6.5 digit DMM
- GX2210, 225 MHz dual channel counter / timer
- GX1110, 100 MS/s arbitrary waveform generator
- GX2472, 70 MS/s, dual channel, differential input digitizer
- GX5292, 100 MHz, 32 channel, digital I/O
- (3) 3U and (2) 6U PXI slots for additional system resources

## TS-730 DIGITAL OPTIONS

Digital instrumentation options include:

- Additional GX5280 or GX5290 series digital cards, supporting vector rates up to 200 MHz and up to 128 channels
- GX5733, supporting up to 128 static digital channels

## TS-730 ANALOG AND SWITCHING OPTIONS

Analog instrumentation and switching options for the TS-730 system include:

- GTX2220 & GTX2230 Counter / Timers supporting frequency measurement to 1.3 GHz and 2.0 GHz respectively
- GX1838 precision multi-channel DC source
- GX6315 high current relay card
- GX6377 multi-function relay switch matrix
- GX6384 switch matrix (replaces GX6377)

The TS-730'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

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time typically associated with a customized functional test system. The resulting benefit for the end user is a test system that is cost 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-730 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
- Component or board level mixed-signal test

## 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	GX6616, high density, differential and single-ended matrix switch card
USER POWER	GX7400A, dual channel, 300 watt power supply; (2) 0-30 volt independent supplies
DIGITAL I/O	GX5292, 100 MHz, 32 channel digital I/O card. Optionally add up to 3 more cards. GX5733, 96 LVTTTL static digital channels. 32 bit configurable port accepts one GX5733 I/O module for customized input / output levels..
ANALOG SOURCE	GX1110, 100 MS/s arbitrary waveform function generator
ANALOG MEASUREMENT	GX2417, 2 - channel, 70 MS/s, 14-bit digitizer with differential inputs GX2210, 2 – channel, 225 MHz counter / timer
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-730	GBATS Mixed-Signal Test Platform
OPTIONS	Contact factory for specific options / configurations