GX5152 SERIES

MARVIN TEST SOLUTIONS

DIGITAL STIMULUS RESPONSE PXI CARD

- 32 Input or Output channels
- Up to 128 Mb vectors per channel
- Conditional Jump and Pause commands
- Can be combined with the GT50-DIO
- Test rates up to 50 MHz
- 6U PXI Instrument

DESCRIPTION

The GX5152 Series are high speed, 6U PXI, digital I/O instruments. The GX5152 master controller has 32 I/O channels that supports test rates up to 50 MHz and vector depths up to 128 Mb per pin. The GX5153 slave offers the same timing characteristics and multiple I/O level configurations when used in conjunction with the GX5152. The GX5152 can control up to 15 GX5153 boards using the same timing and sequencer.

FEATURES

The GX5152 accommodates between two and nine memory SIMMs. One SIMM is used by the sequencer and the other eight by the I/O pins. Each SIMM provides 256 Kb, 1 Mb, 2 Mb or 4 Mb vecttors per pin, for a maximum of 32 Mb. The GX5152 architecture enables the user to stack the memory to reconfigure the board for 16 channels of I/O with 64 Mb depth or for 8 channels of I/O providing a maximum of 128 Mb of vectors for each channel.

The GX5152's sequencer, which utilizes the ninth SIMM, enables a conditional or unconditional JUMP to two predefined addresses and PAUSE commands. The sequencer commands can be applied every eighth step.

Clock and Strobe signals originate on the timing module and are distributed to the slave GX5153s via a ribbon cable. These signals can be provided externally for full synchronization with external events.

The Trigger signal initiates the execution of vector capturing (or vector stimuli). The multiple software and hardware trigger sources provide flexibility in synchronizing the GX5152 with real world events.

The Timing Module provides clocks, strobes, and additional timing signals to control the timing of the GX5152. The Timing Module Level Adapter (TMLA) is a daughter board that mounts on the Timing Module to change the levels according to the selected I/O module (TTL, PECL, ECL, LVDS, or programmable levels). The default TMLA is TTL.

In addition, the GX5152 offers a variety of I/O modules. The I/O modules are daughter boards that mount directly onto the GX5152 board. Available I/O modules include TTL, PECL, ECL, Programmable Levels, and LVDS.

PROGRAMMING AND SOFTWARE

The board is supplied with GTDIO/DIOEasy, a software package that includes vector editing, a virtual instrument panel, and 32/64-bit DLL driver libraries and documentation. The virtual panel can be used to interactively program and control the instrument from a window that displays the instrument's current settings and status. In addition, interface files are provided to support access to programming tools and languages such as ATEasy, LabView, C/C++, Microsoft Visual Basic®, Delphi, and Pascal. On-Line help file and PDF User's Guide provides documentation that includes instructions for installing, using and programming the board.

DIGITAL I/O

GX5152 SERIES

APPLICATIONS

- Automatic Test Equipment (ATE)
- Semiconductors
- Displays
- Printers
- Disk drives
- ASICs
- A/D and D/A
- T3 signals
- Non-standard frame capturing
- Gang testing of boundary scan devices
- Emulation and simulation

SPECIFICATIONS

Timing Module	Minimum	Maximum
Internal Test Clock		
Frequency Range	5 Hz	100 MHz
Resolution	The greater of 1 Hz or 0.01%	
Internal B Clock		
Frequency Range	1 MHz	100 MHz
Resolution	The greater of 1 Hz or 0.2%	
External Clock		
Direct	0 Hz	50 MHz
Ref For Prog.	1 MHz	60 MHz
Pulse Width	10 ns	
Low Input Level	-0.1 V	0.8 V
High Input Level	2.0 V	5.1 V
INPUT / OUTPUT		
Channels Per Module	3 Programmable configurations: 8-bit, 16-bit, and 32-bit I/O	
I/O Memory	256 Kb (max)	
SUPPLY CURRENT		
@ 5 V_{DC}	200 mA	500 mA
@ 12 V_{DC}	50 mA	100 mA
PHYSICAL		
Operating Temperature		
Storage Temperature		
Weight		
Size		
PXI Slot Type		

Note: Specifications are subject to change without notice

GX5152 SERIES

ORDERING INFORMATION

GX5152	100Mhz/50MHz Digital Stim-Response (DSR) Board. 32 Channels, Master Configuration. Requires One GX59x0 I/O Module and Two or More GX500x Memory Modules
GX5153	50MHz DSR Slave Board. 32 Channels. Requires One GX59x0 I/O Module and Two or More Gx500x Memory Modules
I/O MODULE (SELECT ONE)	
GX5910	TTL I/O Module
GX5930	Programmable Level I/O Module
GX5940	PECL I/O Module
GX5960	LVDS I/O Module
SOFTWARE	
DIOEasy	Digital I/O Vector Development Software
DIOEasy-DS	2 days DIOEasy training at Marvin Test Solutions (Irvine, CA) for 1-3 persons. Call for larger groups.
DIOEasy-DS2	On-site, 2-days DIOEasy training seminars for 1-3 persons. Call for larger groups.
MEMORY (SELECT TWO OR MORE)	
GX5001	GX515x Memory Module, 1Mbx32, for 50MHz applications. 2-9 modules per GX515x
GX5001-5	GX515x Memory Module, 1Mbx32, for 50MHz applications. 2-9 modules per GX515x
GX5002	GX515x Memory Module, 2Mbx32, for 50MHz applications. 2-9 modules per GX515x
GX5002-5	GX515x Memory Module, 2Mbx32, for 50MHz applications. 2-9 modules per GX515x
GX5004-40	GX515x Memory Module, 4Mbx32, for 40MHz applications. 2-9 modules per GX515x
GX5004-40-5	GX515x Memory Module, 4Mbx32, for 40MHz applications. 2-9 modules per GX515x
GX5006	GX515x Memory Module, 256Kbx32, for 25/50MHz applications. 2-9 modules per GX515x
GX5006-5	GX515x Memory Module, 256Kbx32, for 25/50MHz applications. 2-9 modules per GX515x
ACCESSORY	
TS-900e-5G-BMC	Blind mate connectors (one pair), DC - 40 GHz, 2.92mm
GT95021	2 ft. Shielded Cable for all 5xxx/35xx (68 Pin)
GT95022	3 ft Shielded Cable for all 5xxx/35xx (68 Pin)
GT95022E	3 ft Shielded Cable for all 5xxx/35xx (68 Pin) Not Terminated One End
GT95025	Connector Interface, 68-Pin SCSI to TTI Testron 170-Pin Signal Block

GT95028	10 ft shielded cable for 5xxx/35xx products (68 Pin)
GT95031	6 ft Shielded Cable for all 5xxx/35xx (68 Pin)
GT95035E-48	Shielded Flying Lead Cable for all 5xxx/35xx (68 Pin), 48".

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