OpenATE PA32S

* Interface	3U PXI (V)	USB (----)
* 32 input / output channels, dynamically configurable		
* 33 MHz data rate		
* -0.5V ~ +5V VIH VIL per channel VOH VOL per two channels		
* PMU per channel		
* 32 M of on-board vector memory per channel		
* Supports 16 Timing Sets & 2 Format Sets change on the fly		
* Dynamic controlled sequencer uses micro-instructions including Match, Repeat		
* 32M capture/fail log		
* 8 32 bit/ 10 ns TMU		
* 8 I2C/SPI data engines		
* 8 external trigger start for I2C		
* Quad Sites Pattern Mode		
* Swithable reference clock 100/96MHz		
* API & Pattern Editor		

3U PXI

Description

The PA32S represents a new level of performance and capabilities for PXI-based digital instrumentation. Based on the proven architecture of the PE32, the PA32S offers high performance pin electronics and an enhanced timing generator in a compact, 3U PXI form factor. Each card can function as a stand-alone digital subsystem or if required, multiple cards can be interconnected, supporting up to 512 bi-directional pins (16 boards). The PA32S also supports deep pattern memory by offering 32 M of on-board vector memory with dynamic per pin direction control and with test rates up to 33 MHz.
With new 32M capture/log memory, PA32S can capture 32 channels fail log .

Features

The PA32S supports -0.5V ~ +5V VIH VIL per channel VOH/VOL per two channels ,and PMU per channel. The PA32S offers 16 timing sets, 2 driver TG Edges, 2 strobe TG Edges. 2 Format sets, change on the fly, and four drive data formats are supported: RTZ (Return To Zero), RTO (Return To One), NRZ (Non Return To Zero), SBC (Surround By Complement) which can providing flexibility to create a variety of bus cycles and waveforms to test board and box level products. 8 100MHz 32bit TMU for frequency measurement. I2C/SPI data engine for serial port access. Quad sites pattern can run 32 ch pattern as 4 site 8 ch pattern .
With 96MHz reference clock, generate 2.4MHz pattern is possible for microphone device.

On-Board Memory

The PA32S offers 32 M of vector memory per channel. Programmable pattern cycle times up to 2^{32} or infinite. There are pattern symbols including 0, 1, L, H, X.

Compatibility

All OpenATE Interfaces PXI cards comply with the PXI Specification 2.0 (issued Aug. 2000)

Software

The PA32S is supplied with API and Pattern Editor. Pattern Editor is a software tool that edits test patterns.

Application

- Automatic Test Equipment(ATE)
- Consumer Digital Functional/DC Test
- Digital Pattern Generation
- MEMS Sensor Device Testing

OpenATE PA32S

Specifications

● Pin Electronics	
I/O Channels	32, per board resource
Test rate	33MHz
Input Level (VIH/ VIL)	-0.5V ~ +5V per channel
Output Level (VOH/VOL)	-0.5V ~ +5V per channel
Output Impedance	50 Ohm
● Timing	
Period Resolution	10nS
Pin TG Edge Resolution	10nS
Minimum Pulse Width	10nS
Timing Sets	16, Change on the fly
Driver TG Edges	2, per pin resource
Strobe TG Edges	2, per pin resource
● Formatter	
Format Sets	2
	RTZ, Return To Zero
	RTO, Return To One
	NRZ, Non Return To Zero
	SBC, Surround By Complement
● PMU	
Number of PMU	32
PMU Accuracy	MI: ±1.0%FS V: 50mV
Number of IRange x 3	I2: ±400uA
	I3: ±4mA
	I4: ±40mA
Number of VRange x 1	E1: -1V ~ +5V
● Logic Sequencer	
Micro-Instructions	MATCH; REPEAT;
Pattern Symbols	0, 1, L, H, X
LMSYNC to PXI Trigger Bus	For Sync with other Instruments
Ignore Fail By LM Address	YES
Vector Memory	32M (length) × 32 (channels)
Log Memory	32M for capture/ failure log
Programmable pattern cycle times	2^{32} or infinite
● Trigger	PXI_TRIG Bus : 8

OpenATE PA32S

● Physical Properties	
Bus Interface	PXI
Dimensions	3U
Power Requirements	3.3V@3A, 5V@3A 12V@0.1A
System Clock	100MHz
Bus & Signals	8 PXI Trigger bus lines for parallel test
● Environmental	
Operating Temperature	0 ~ 50˚C
Storage Temperature	-20˚C ~ 70˚C
● Software	PXI : API & Pattern Editor
● Maximum boards in one system	16
● PXI Compliance	All OpenATE Interfaces PXI cards comply with the PXI Specification 2.0 (issued Aug, 2000)

OpenATE Inc.

The Open Solution for IC Tester

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