OpenATE PE16S

* Interface	3U PXI (V)
* 16 input / output channels, dynamically configurable	
* 66 MHz data rate	
* -1V ~ +7V VOH VOL VIH VIL per channel	
* 2 PMU / 32mA, 2 DPS up to 256mA / +10V output	
* 32 M of on-board vector memory per channel	
* Supports 16 Timing Sets & 2 Format Sets change on the fly	
* 16 DUT relay driver	
* 32M fail log / Capture	
* Quad Sites Pattern Mode	
* 200MHz 32bit frequency counter TMU * 2	
* 2 Serial port function support 52MHz MIPI RFFE	
* API & Pattern Editor	

3U PXI

Description

The PE16S represents a new level of performance and capabilities for PXI-based digital instrumentation. Based on the proven architecture of the PE16, the PE16S 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 256 bi-directional pins (16 boards). The PE16S offers 16 programmable level input or output channels with 2 PMU and 2 DPS. The PE16S also supports deep pattern memory by offering 32 M of on-board vector memory with per channel dynamic direction control running test rates up to 66 MHz.

Features

The PE16S supports programmable I/O levels from -1V ~ +7V per channel. The PE16S offers 16 timing sets, 2 driver TG Edges, 2 strobe TG Edges. 2 Format sets, change on the fly, and 2 drive data formats are supported. 16 relay control bits for DUT relay control. PE16S also support Serial Port functions: MIPI RFFE . These functions make testing serial port devices much easier than before.

On-Board Memory

The PE16S 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, Z, J, Q.

Compatibility

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

Software

The PE16S 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 Test
- Digital Pattern Generation
- Serial Port for RF IC

OpenATE PE16S

Specifications

● Pin Electronics	
I/O Channels	16, per board resource
Test rate	66MHz
Input Level (Vih/ Vil)	-1V ~ +7V per channel
Output Level (Voh/Vol)	-1V ~ +7V per channel
Output Impedance	50 Ohm
● Timing	
Period Resolution	5nS
Pin TG Edge Resolution	5nS
Driver Skew Resolution	500pS
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, Change on fhe fly
	RTZ, Return To Zero
	RTO, Return To One
	NRZ, Non Return To Zero
	SBC, Surround By Complement
● 2 COUNTERs 200MHz / 32 bit	
● Serial Port 20ns resolution	
● PMU	
Number of PMU	2 (per 8 pin)
PMU Accuracy	FIMI: ±10nA±0.5% FVMV: ±20mV
Number of IRange x 8	I1: ±2uA / I2: ±8uA
	I3: ±32uA / I4: ±128uA
	I5: ±512uA / I6: ±2mA
	I7: ±8mA / I8: ±32mA
Number of VRange x 1	E1: -1V ~ +7V
● DPS	
Number of DPS	2
I Range	256mA, 32mA, 8mA, 2mA, 512uA, 128uA, 32uA, 8uA
V Setting Range	-1V ~ +10V

OpenATE PE16S

● Logic Sequencer	
Micro-Instructions	MATCH; REPEAT
Pattern Symbols	0, 1, L, H, X, Z, J, Q
LMSYNC to PXI Trigger Bus	For Sync with other Instruments
Ignore Fail By LM Address	YES
Vector Memory	32M (length) ×16 (channels)
Log Memory	32M Failure log and capture
Programmable pattern cycle times	2^{32} or infinite
● Relay Control	
Open collector driver	16 bits 5V/500mA
● Physical Properties	
Bus Interface	PXI
Dimensions	3U
Power Requirements	3.3V@3A, 5V@3A 12V@0.5A
System Clock	200MHz
Bus & Signals	8 PXI Trigger bus lines for parallel test
● Environmental	
Operating Temperature	0 ~ 50℃
Storage Temperature	-20℃ ~ 70℃
● 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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