

OpenATE PEMU8

3U PXI High Performance Dynamic Digital PE Card and PMU

- 8 input / output channels with PMU
- 64 M of on-board vector memory per channel
- -1 ~ +17V VOH VOL VIH VIL per channel
- Per-channel 200mA PMU, 24mA Active load
- 50MHz data rate
- Supports 16 Timing Sets & 16 Formatter Sets change On The Fly
- Dynamic controlled sequencer uses micro-instructions including Match, Loop, Repeat, FC/FM/FL/FE
- 16 user relay controls for DUT relays
- Operates as a stand-alone card or with up to 7 additional synchronous slave boards
- API & Pattern Editor



Description

The PEMU8 represents a new level of performance and capabilities for PXI-based digital instrumentation. The PEMU8 offers high performance PMU and wide voltage pin electronics with 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 64 bi-directional pins (8 boards). The PEMU8 offers wide voltage programmable level input or output channels with per-pin PMU. The PEMU8 also supports deep pattern memory by offering 64 M of on-board vector memory with per channel and per cycle direction control and with test rates up to 50 MHz. 16 user relay controls for DUT relays.

Features

The PEMU8 supports programmable I/O levels from -1V ~ +17V per channel. The PEMU8 offers 16 timing sets, 2 driver TG Edges, 2 strobe TG Edges. 16 Formatter sets, change on the fly, and four drive data formatters 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.

On-Board Memory

The PEMU8 offers 64 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 PEMU8 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
- Power Management Device Testing
- Hybrid and Digital IC Testing

OpenATE Inc.

The Open Solution for IC Tester

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Specifications

• Pin Electronics		• Programmable Load	
I/O Channels	8, per board	IOL/IOH Range	±24mA
Test rate	50MHz	VREF Setting Range	-1V ~ +17V
Input Level (Vih/ Vil)	-1 ~ +17V per channel	• Logic Sequencer	
Output Level (Voh/Vol)	-1 ~ +17V per channel	Micro-Instructions	MATCH; LOOP; REPEAT; FC/FM/FL/FE
• Timing		Pattern Symbols	0, 1, L, H, X, Z, J, Q
Period Resolution	5nS	LMSYNC to PXI Trigger Bus	For Sync With other Instruments
Pin TG Edge Resolution	5nS	Ignore Fail By LM Address	YES
Minimum Pulse Width	5nS	Vector Memory	64M(length) ×8(channels)
Timing Sets	16, Change On The Fly	Programmable pattern cycle times	2 ³² or infinite
Driver TG Edges	2, per pin resource	• Trigger	
Strobe TG Edges	2, per pin resource	PXI Star Trigger	1
• Formatter		• Physical Properties	
Formatter Sets	1	Bus Interface	PXI
RTZ, Return To Zero RTO, Return To One NRZ, Non Return To Zero SBC, Surround By Complement		Dimensions	3U
• PMU		Power Requirements	3.3V@2A, 5V@2A 12V@0.5A ext. power 20V@2A
Number of PMU	8 (per-pin)	System Clock	200MHz
PMU Accuracy	1.00%	Bus & Signals	8 PXI Trigger bus lines for parallel test
Number of IRange x 8	I1: ±20uA / I2: ±200uA I3: ±2mA / I4: ±20mA I5: ±200mA	• Environmental	
		Operating Temperature	0 ~ 50°C
• Software		Storage Temperature	-20 ~ 70°C
API & Pattern Editor		• Maximum boards in one system	
• PXI Compliance			8
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