

OpenATE PEMU32

3U PXI High Voltage PMU/DPS and Dynamic Digital PE Card

- 32 input / output channels, dynamically configurable on 256 IO sets
- 64 M of on-board vector memory per channel
- -1 ~ +10 V_{OH} V_{OL} V_{IH} V_{IL} per channel
- 32 PMU per board or 4 DPS
- 10 MHz data rate
- Supports 4 Timing Sets & 4 Format Sets change On The Fly
- Dynamic controlled sequencer uses micro-instructions including Match, Loop, Repeat, FC/FM/FL/FE
- 16K log memory to capture real time data or 8K fail log
- 100MHz 32 bit counter for frequency measurement
- Operates as a stand-alone card or with up to 7 additional synchronous slave boards
- API & Pattern Editor



Description

The PEMU32 represents a new level of MULTI-FUNCTION for PXI-based instrumentation. Based on the proven architecture of the PE32, the PEMU32 offers high voltage PMU/DPS and pin electronics 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 (8 boards). The PEMU32 also supports deep pattern memory by offering 64 M of on-board vector memory with dynamic per pin direction control and with test rates up to 10 MHz.

With new 8K log memory, PEMU32 can capture 32 channels data concurrently when testing device or log fail data.

Features

The PEMU32 supports -1 ~ +10 V_{OH} V_{OL} V_{IH} V_{IL} per channel and 32 PMU/4 DPS per board. The PEMU32 offers 4 timing sets, 2 driver TG Edges, 2 strobe TG Edges. 4 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 PMU can be ganged to high current DPS. 100MHz 32 bit counter for frequency measurement.

On-Board Memory

The PEMU32 offers 64 M of vector memory per channel. Programmable pattern cycle times up to 2³² 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 PEMU32 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
- Open/Short Tester

OpenATE Inc.

The Open Solution for IC Tester

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Specifications

• Pin Electronics		• Logic Sequencer	
I/O Channels	32, per board resource	Micro-Instructions	MATCH; LOOP; REPEAT; FC/FM/FL/FE
Test rate	10MHz	Pattern Symbols	0, 1, L, H, X, Z, J, Q
Input Level (Vih/ Vil)	-1 ~ +10V per channel	LMSYNC to PXI Trigger Bus	For Sync With other Instruments
Output Level (Voh/Vol)	-1 ~ +10V per channel	Ignore Fail By LM Address	YES
• Timing		Vector Memory	64M(length) × 32(channels)
Period Resolution	10nS	Log Memory	16K for capture /8K for log
Pin TG Edge Resolution	10nS	Programmable pattern cycle times	2 ³² or infinite
Minimum Pulse Width	50nS	• Trigger	
Timing Sets	4, Change On The Fly	EXT TTL Trigger	
Driver TG Edges	2, per pin resource	• Physical Properties	
Strobe TG Edges	2, per pin resource	Bus Interface	PXI
• Formatter (Change On The Fly)		Dimensions	3U
Format Sets	4, Change On The Fly	Power Requirements	3.3V@3A, 5V@3A 12V@0.5A
RTZ, Return To Zero RTO, Return To One NRZ, Non Return To Zero SBC, Surround By Complement		System Clock	100MHz
• PMU		Bus & Signals	8 PXI Trigger bus lines for parallel test
Number of PMU	32	• Environmental	
PMU Accuracy	1.00%	Operating Temperature	0 ~ 50°C
Number of IRange x 8	I1: ±2uA/ I2: ±8uA I3: ±32uA/ I4: ±128uA I5: ±512uA/ I6: ±2mA I7: ±8mA/ I8: ±32mA IH:±64mA	Storage Temperature	-20 ~ 70°C
Number of VRange x 1	E1: -1V ~ +10V	• Software	API & Pattern Editor
• PXI Compliance		• Maximum boards in one system	8
All OpenATE Interfaces PXI cards comply with the PXI Specification 2.0 (issued Aug, 2000)		*One DPS can offer 512mA current.	

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