



MODEL 33010

KEY FEATURES

- Standard PXIe bus connector
- 100MHz maximum clock rate
- 32 channels per board
- Extendable up to 256 channels in one chassis
- Any pin to any site
- Per board sequencer architecture (multiple time domains supported)
- Per-pin timing with per-pin, per-cycle bidirectional control
- Per-pin time & frequency measurement
- Per-pin DC level & PMU
- 16 timing sets with on-the-fly timing changes
- 64M sequencer command memory per pin
- 64M vector memory per pin
- SCAN pattern function support
- Windows 7/10 operating system
- LabView and LabWindows support
- Proprietary CRAFT_PXI software tools option
- Master/Slave architecture for boards chaining
- Similar to pattern and timing structure as 3380D/3380P/3380 series ATE
- Additional power supply (option)

PROGRAMMABLE HIGH SPEED PXIE DIGITAL IO CARD MODEL 33010

Chroma 33010 is a high-density 100MHz PXIe digital IO card designed for characterizing, validating, and testing a variety of digital and mixed-signal ICs. Each IO card consists of a Sequencer Pattern Generator (SQPG) and 32 channels of full ATE-like features. The 33010 IO card is expandable up to 256 channels. Some unique features of the 33010 include an on-board SQPG, per pin timing/levels/PMU/TFMU, multiple time domains, and multi-threaded testing for complex IC testing. Each channel is also equipped with 64M vector memory, 16 timing sets with on-the-fly timing change, and per pin timing and frequency measurements up to 400 MHz.

Proprietary Software, CRAFT_PXI and other rich features of software support

In addition to LabView and LabWindows support, Chroma provides a proprietary software option, CRAFT_PXI, for Windows-based systems. CRAFT_PXI contains a full set of production tools and user debugging tools. The production tools include ease-of-use GUI

software with an Operator Interface, Test Data Output, Binning and Sequence Control, Wafer Map, Summary Tool, and rich sets of prober/handler drivers. The user debugging tools include a Data Logger, Debug Plan, TCM, Shmoo, Pattern Editor, Waveform, and more. A CAD to ATE pattern conversion tool is also supported to cover WGL/STIL/VCD/EVCD conversions.

Addressing the emerging market and test cost challenges

With a high-density per pin and per site architecture, full suite of ATE Pin Electronics (PE) card functions, expandable channel count, and a rich set of software support, the 33010 digital IO card will help users address the emerging market and test cost challenges. 33010 PXIe cards can be easily adopted with other PXI/PXIe solutions such as RF, SMUs, and Mixed-signal cards to address a variety of applications such as MCUs, Sensors, RF ICs, PMICs, or ICs with combined functions.

APPLICATIONS

- Semiconductor
- LED / Laser Diode
- Solar Cell
- Battery / BMS
- Transistor
- Automotive
- Avionics
- Power Electronics
- Sensor / IoT



SPECIFICATIONS

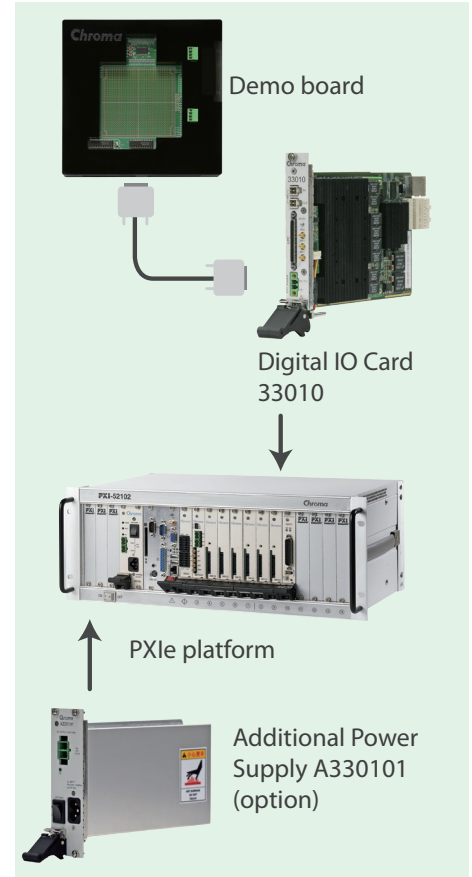
| | |
|---|--|
| Model | 33010 |
| Clock Rate | 100 MHz |
| Pin Channels per Card | 32 pins (chained to max. 256 pins) |
| Pattern Memory | 64M |
| Sequence Control Memory | 64M |
| Parallel Testing Capability | Any pin to any site |
| Timing Generator per Pin | |
| Timing Generators | 8 edges per pin (4 drive / 2 strobes / 2 IO markers) |
| No. of Timing Sets | 16 |
| Rate Setting Resolution | 625 pS |
| Rate Setting Range | 10ns to 5ms |
| Driver / Comparator / Load | |
| Pin Driver (Vil/Vih) Range | -1.5V to + 6V |
| Pin Driver(Vil/Vih) Accuracy | ±(0.5% + 10mV) |
| Output Current Limit | 75 mA |
| Output Impedance | 50 ± 5 Ω |
| Pin Comparator (Voh/Vol) Range | -1.5V to + 6V |
| Pin Comparator (Voh/Vol) Accuracy | ±(0.5% + 20mV) |
| Pin Load (Iol/Ioh) Range | ± 25mA |
| Vref Setting Range | -1.5V to + 6V |
| Scan Chains | |
| Scan Chains Numbers | Flexible configuration chains per board |
| Scan Pattern Memory Size | Max. 3G |
| PPMU | |
| Channel | Per Pin (32 Chs FIMV / FVMI) |
| Voltage Force Range | -2.0V to +6V |
| Current Measured Range | ± 2uA / ± 10uA / ± 100uA / ± 1mA / ± 40mA |
| Current Force Range | ± 2uA / ± 10uA / ± 100uA / ± 1mA / ± 40mA |
| Voltage Measured Range | -2.0V to +6V |
| Time & Frequency Measurement | |
| Maximum Frequency Measurement | Per pin, 400MHz |
| Maximum Time Measurement | Per pin, 40 sec. (0.025Hz / resolution : 10ns) |
| Free-run Clock | Per Pin, Max. : 200MHz |
| Others | |
| System Environment | Windows 7/10 |
| Programming Language | C \ C# \ Labview |
| Power Consumption | 80W |
| Dimension | PXle 3U |
| Optional PXle Power Supply | |
| Input Voltage (VAC) | A330101 (AP15) 100 ~ 240 ± 10% V _{LN} |
| Source Line Frequency Range | 47 ~ 63Hz |
| Input Current , Continuous (A) | 0.1 ~ 2.7A |
| Output Range (Vdc) | 17.75 ~ 18.15 VDC |
| Output Current, Continuous (A) | 11.2A |
| Output Voltage Ripple Noise | 100 ~ 180mV |
| Max. Support Watt | up to 200W (33010 x 4) |
| Occupy Slots | 2 slots |

All specifications are subject to change without notice.

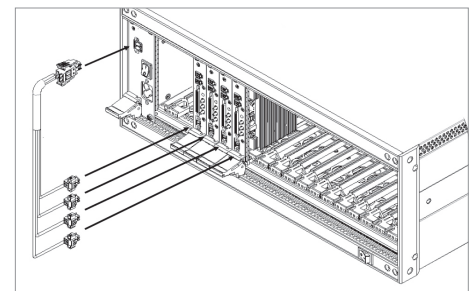
ORDERING INFORMATION

33010 : Programmable High Speed PXle Digital IO Card
 A330101 : Additional Power Supply, 15V (option)
 Demo Board
 PXle Platform

ARCHITECTURE OVERVIEW



A330101 STRUCTURE DIAGRAM



One A330101 power supply supports up to 200W (4 pcs of 33010 digital IO cards)

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Search Keyword

33010

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