

## MODEL 33020

### KEY FEATURES

- High channel density with 8 channels per card
- -6V~12V independently programmable voltage levels
- Max. 250mA (500mA at 6V) current per channel
- Parallel current gang feature providing max. 4A output per card
- 16-bit voltage programming resolution
- 18-bit measurement resolution with accuracy up to 0.01%
- Very fast settling time for best throughput
- Programmable voltage and current protection clamping
- External trigger input and output for high speed test synchronization
- Semiconductor grade CRAFT-PXIe software
- LabView and LabWindows support
- Master/Slave architecture for boards chaining
- Compliance pattern and timing structure with Chroma 3380 series

### FOCUSED APPLICATIONS

- MCU and consumer SoC
- MEMS & Sensors: Light sensors, temperature sensors, pressure sensors, magnetic sensors, gyro, accelerometers
- Automotive 48V power system
- RF: Switch/Front-end module IC, connectivity (bluetooth, WiFi, combo, etc.), mobile IC

## PXIe PROGRAMMABLE DEVICE POWER SUPPLY MODEL 33020

### Addressing the testing needs for all types of semiconductor components

The world is pushed to change by the advance in semiconductor technologies. This is the time when artificial intelligence meets 5G, when autonomous cars meet big data analysis, with everything consolidated into a portable device. Semiconductor test systems need to be transformed to a new era where all sorts of features need to be integrated into a tiny system. The emerging PXIe-based platform provides a good viable path to fulfill the needs in the new era. Chroma's PXIe Semiconductor Test Solutions give our clients a versatile workplace to complete the semiconductor test while integrating functional instrument modules from different suppliers.

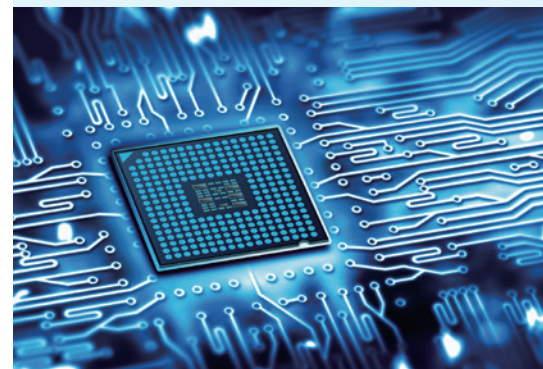
### Semiconductor Test Class Device Power Supplies without compromise

Chroma 33020 PXIe based programmable power supply card is a highly integrated power supply module that comes with everything you need for semiconductor tests. It has the highest density of 8 independently programmable DC voltages from -6V to 12V at 250mA or 6V at 500mA with programmable voltage and current clamping. The outputs can be ganged together with output current up to 4A. For semiconductor test applications, those device power supplies also come with 16-bit force voltage level and 18-bit measurement voltage resolution at 500ksps sampling rate

that provides superior accuracy. Device set up time is also greatly improved with a settling time from 50uS to 500uS achieving the highest test speed needed.

### Proprietary Software, CRAFT and other rich features of software support

In addition to supporting the LabView and LabWindows environment, Chroma provides a proprietary software suite, CRAFT. CRAFT, running on Microsoft Windows operation system, contains a full set of tools for semiconductor tests from test program development, debugging, production to maintenance. The production tools include easy-of-use GUI software such as 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 the Datalog, Plan Debug, TCM, Shmoo, Pattern Editor, and Waveform, etc. It also supports LabView and LabWindow environment, and a subset of debugging tools are provided. In addition, a third party CAD to ATE pattern conversion tool is also supported to cover the WGL/STIL/VCD/EVCD conversions.



## SPECIFICATIONS

Model	33020
Number of Channel	8 channels per board
Force Mode	FV, FI, FN
Measure Mode	MV, MI
Force V Range	-6V~+12V @ 250mA -6V~+6V @ 500mA
Force I Range	25mA, 250mA, 500mA (6V only)
Measure V Range	-6V~+12V
Measure I Range	5uA, 25uA, 250uA, 2.5mA, 25mA, 250mA, 500mA
Gang Mode	250mA, 500mA in parallel mode
Measurement Trigger	By CPU, PXI trigger bus
Force DAC	16 bits
Measure ADC	18 bits, 500kbps
FV Settling Time	5uA, 25uA, 250uA, 2.5mA I range: max. 500us 25mA I range: max. 180us 250mA, 500mA I range: max. 53us
FV Slew Rate	0.39V/us
Source Memory	4k per channel
Capture Memory	4k per channel
Over Temperature Protection	Thermal shutdown
Outlet Type	Connector : 5787170-5 x 1 (including Ex-Gain IN/OUT) SSMB8400A-0000 x 2 (Trigger In, Trigger Out)
Slot Type	PXI Express
Total Power Consumption	54W (48W by 12V / 6W by 3.3V)

All specifications are subject to change without notice.

## ARCHITECTURE OVERVIEW



## ORDERING INFORMATION

33020 : PXIe Programmable Device Power Supply (DPS08), 8 channels

Load Board

PXIe Chassis



6-slot chassis

9-slot chassis

18-slot chassis

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