



## MODEL 33021

### KEY FEATURES

- Max. 48V DC output with 2 channels per card
- -12V ~ 48V independently programmable voltage levels
- Max. 250mA current per channel
- Parallel current gang feature providing max. 500mA output per card
- 18-bit voltage programming resolution
- 18-bit measurement resolution with accuracy up to 0.01%
- 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

## HIGH VOLTAGE DEVICE POWER SUPPLY MODEL 33021

### 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 Power Source for Automotive and Other Applications

Chroma 33021 PXIe based programmable power supply card is an integrated power supply module for higher voltage up to 48V at 250mA current. The outputs can be ganged together with output current up to 500mA per card, and paralleled across cards for high current needs. With an 18-bit force voltage resolution and 18-bit measurement voltage resolution at 1Msps sampling rate, users will be able to read the supply output voltage and current data and save them into the built-in source and capture memory. Programmable

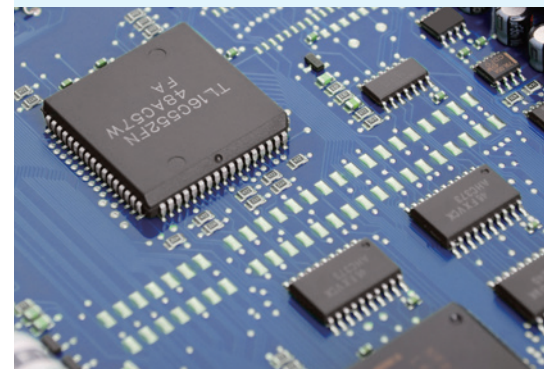
voltage and current protection clamps are also designed to make sure the power source is well controlled without risks.

### 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 test from tests 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.

### 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

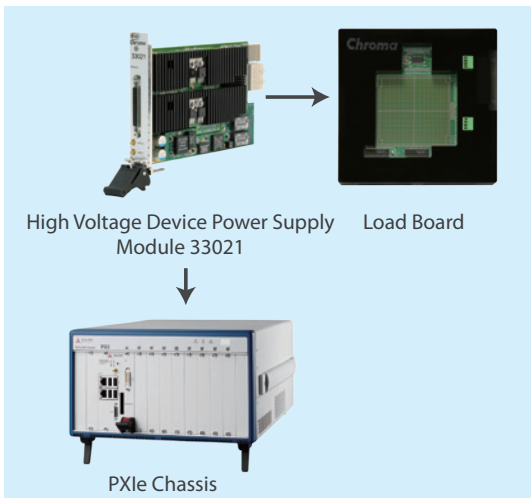


## SPECIFICATIONS

Model	33021
Number of Channel	2 channels per board
Total output power	24W per board
Number of board in a system	optional
Force Mode	FV, FI, FN
Measure Mode	MI (FN exception), MV(measure I/V simultaneously)
V Range	4V, 6V, 12V, -12~+24V, -12~+48V
I Range	1uA, 10uA, 100uA, 1mA, 10mA, 100mA, 250mA
Outlet	Go through connector
Current Gang Support	Yes Internal : 2 channels maximum External : slot gang available
Ground Reference	System grounding
Measurement Trigger by	CPU, PXI trigger bus
Force DAC	18 bits, 250Ksps
Measure ADC	18 bits, 1Msps
Source Memory	4k depth
Capture Memory	4k depth
Clamp	Programmable, 16 bits FICV FVCI

All specifications are subject to change without notice.

## ARCHITECTURE OVERVIEW



## ORDERING INFORMATION

33021 : PXIe High Voltage Device Power Supply (REF02), 2 channels  
Load Board  
PXIe Chassis



6-slot chassis

9-slot chassis

18-slot chassis

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HEADQUARTERS  
CHROMA ATE INC.  
88 Wenmao Rd.,  
Guishan Dist.,  
Taoyuan City  
333001, Taiwan  
T +886-3-327-9999  
F +886-3-327-8898  
www.chromaate.com  
info@chromaate.com

U.S.A.  
CHROMA ATE, INC.  
(U.S.A.)  
7 Chrysler, Irvine,  
CA 92618  
T +1-949-421-0355  
F +1-949-421-0353  
www.chromaus.com  
info@chromaus.com

EUROPE  
CHROMA ATE EUROPE B.V.  
Morsestraat 32, 6716 AH  
Ede, The Netherlands  
T +31-318-648282  
F +31-318-648288  
www.chromaeu.com  
salesnl@chromaeu.com

CHROMA GERMANY GMBH  
Südtiroler Str. 9, 86165,  
Augsburg, Germany  
T +49-821-790967-0  
F +49-821-790967-600  
www.chromaeu.com  
salesde@chromaeu.com

JAPAN  
CHROMA JAPAN  
CORP.  
888 Nippa-cho,  
Kouhoku-ku,  
Yokohama-shi,  
Kanagawa,  
223-0057 Japan  
T +81-45-542-1118  
F +81-45-542-1080  
www.chroma.co.jp  
info@chroma.co.jp

KOREA  
CHROMA ATE  
KOREA BRANCH  
3F Richtogether  
Center, 14,  
Pangyojeok-ro 192,  
Bundang-gu,  
Seongnam-si,  
Gyeonggi-do  
13524, Korea  
T +82-31-781-1025  
F +82-31-8017-6614  
www.chromaate.co.kr  
info@chromaate.com

CHINA  
CHROMA ELECTRONICS  
(SHENZHEN) CO., LTD.  
8F, No.4, Nanyou Tian  
An Industrial Estate,  
Shenzhen, China  
T +86-755-2664-4598  
F +86-755-2641-9620  
www.chroma.com.cn  
info@chromaate.com

SOUTHEAST ASIA  
QUANTEL PTE LTD.  
(A company of Chroma Group)  
25 Kallang Avenue #05-02  
Singapore 339416  
T +65-6745-3200  
F +65-6745-9764  
www.quantel-global.com  
sales@quantel-global.com