

CHROMA

63102A

The Chroma 63102A is a dual-channel, programmable DC electronic load module designed for use with the Chroma 6310A series mainframes. Each independent channel provides up to 100W of power, 80V of voltage, and 20A of current, making it highly suitable for testing multi-output AC/DC power supplies, DC/DC converters, chargers, and portable electronic components.

SPECIFICATIONS

General

Interfaces	Via mainframe (GPIB, USB, RS-232, RS-485, LAN optional interfaces)
Display	None (uses mainframe display or host software control)

Physical

Power Supply	Powered directly by mainframe slot
Operating Temperature	0 to 40 °C °C
Dimensions (W×H×D)	82 × 172 × 409 mm mm
Weight	4.8 kg kg

Input Ratings and Operating Ranges

Number of Channels	2 (isolated)
Maximum Input Power (per channel)	100 W
Maximum Input Voltage (per channel)	80 V
Maximum Input Current (per channel)	20 A
Minimum Operating Voltage at Maximum Current	1.6 V @ 20 A

Operating Modes & Accuracy

Constant Current (CC) Low Range	0 to 2 A
Constant Current (CC) High Range	0 to 20 A
Constant Current (CC) Programming Resolution (Low Range)	0.5 mA
Constant Current (CC) Programming Resolution (High Range)	5 mA
Constant Current (CC) Programming Accuracy (Low Range)	$\pm(0.1\% \text{ of setting} + 0.1\% \text{ of range})$
Constant Current (CC) Programming Accuracy (High Range)	$\pm(0.1\% \text{ of setting} + 0.1\% \text{ of range})$
Constant Voltage (CV) Low Range	0 to 16 V
Constant Voltage (CV) High Range	0 to 80 V
Constant Voltage (CV) Programming Resolution (Low Range)	4 mV
Constant Voltage (CV) Programming Resolution (High Range)	20 mV
Constant Voltage (CV) Programming Accuracy	$\pm(0.05\% \text{ of setting} + 0.1\% \text{ of range})$
Constant Power (CP) Low Range	0 to 10 W
Constant Power (CP) High Range	0 to 100 W

Measurement and Readback Accuracy

Voltage Readback Accuracy	$\pm(0.05\% \text{ of reading} + 0.05\% \text{ of range})$
Current Readback Accuracy	$\pm(0.1\% \text{ of reading} + 0.1\% \text{ of range})$

Physical and Mechanical Specifications

Form Factor	Single-slot plug-in module for 6310A mainframe series
Compatible Mainframes	Chroma 6312A (2-slot), Chroma 6314A (4-slot)

Protection

Over Temperature Protection (OTP)	Yes
Over Current Protection (OCP) Range	0.05 to 2.05 A (Low Range), 0.1 to 20.5 A (High Range)
Over Power Protection (OPP) Range	1 to 102.5 W

Dynamic Mode

Dynamic Mode Frequency Range	0.1 Hz to 20 kHz
Dynamic Mode Duty Cycle	1% to 99% (1% resolution)
Slew Rate (Low Range)	0.0008 to 0.08 A/ μ s
Slew Rate (High Range)	0.008 to 0.8 A/ μ s
Slew Rate Resolution (Low Range)	0.0008 A/ μ s
Slew Rate Resolution (High Range)	0.008 A/ μ s
Dynamic Timer 1 & 2 Range	0.025 ms to 9.999 s

Constant Resistance (CR) Mode

Constant Resistance (CR) Low Range	0.04 Ω to 2 Ω
Constant Resistance (CR) Medium Range	1.5 Ω to 75 Ω
Constant Resistance (CR) High Range	60 Ω to 3 k Ω

Measurement

Voltage Readback Resolution (Low Range)	4 mV
Voltage Readback Resolution (High Range)	20 mV
Current Readback Resolution (Low Range)	0.5 mA
Current Readback Resolution (High Range)	5 mA

TECHNOLOGY

Programmable DC Electronic Load Module

APPLICATIONS

Multi-output power supply testing, DC/DC converter evaluation, battery charger testing

Generated by SpecAtlasHub (specatlashub.com). Specifications are compiled from available sources and are subject to change — verify critical values against the manufacturer before purchase.