

KEYSIGHT TECHNOLOGIES (AGILENT HP)

6050A

The Keysight (formerly Agilent / HP) 6050A is a 1800 W, 6-slot electronic load mainframe designed to hold a variety of HP/Agilent 60500-series DC electronic load modules. It allows flexible system configuration with up to six single-wide or three double-wide modules, managed through a single GPIB address for complete control and readback.

SPECIFICATIONS

General

Interfaces	GPIB (IEEE-488)
Display	12-character vacuum fluorescent display (VFD)

Physical

Power Supply	100 VAC / 120 VAC / 220 VAC / 240 VAC (+10%, -13%), 47 - 63 Hz, 250 VA max
Operating Temperature	0 to 55 °C °C
Dimensions (W×H×D)	425.5 mm W × 177 mm H × 524 mm D mm
Weight	21.8 kg kg
Rack Height	4 U
Airflow Direction	Inflow from sides and front, exhaust from rear

Mainframe System Specifications

Number of Slots	6 slots
Maximum Total Power Capacity	1800 W
Module Compatibility	60501B, 60502B, 60503B (single-wide); 60504B, 60507B (double-wide)
Parallel Operation Support	Supported in Constant Current (CC) mode for higher power capability

Connectivity and Control Interfaces

Single GPIB Address Control	Controls and reads back all installed modules
GPIB Control Capability	Control of current, voltage, and resistance
GPIB Readback Capability	Readback of current, voltage, and power
Trigger Input / Output	BNC connectors for external synchronization
Software Driver Support	VXI plug&play drivers

Transient & Dynamic Characteristics

Built-in Waveform Generation	Pulse waveform with programmable amplitude, frequency, duty cycle, and slew rate
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Measurement and Readback

Calibration Type	Electronic calibration (closed-case, no manual internal adjustments)
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Protection Features

Protection Features	Over-current, over-voltage, overpower, over-temperature, and reverse polarity
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Environmental and Safety

Storage Temperature Range	-40 to 75 °C
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Physical Characteristics

Rack Mounting Support	Standard 19-inch rack compatible (4U height)
Cooling Mechanism	Forced-air cooling with internal fans
Shipping Weight	26.8 kg

Electrical Input

AC Input Voltage Options	100 VAC / 120 VAC / 220 VAC / 240 VAC (+10%, -13%, switch-selectable)
AC Input Frequency Range	47 Hz - 63 Hz
Maximum AC Input Power	250 VA

Control & Signaling

Discrete Fault Indicator (DFI)	Yes (open-collector output, 30 VDC max, 30 mA max sink)
Remote Inhibit (RI) Input	Yes (TTL-compatible, active-low)

Connectivity

GPIO Address Selection	Rear-panel DIP switches (address 0-30)
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Compliance & Safety

Safety Compliance Standards	Certified to CSA 22.2 No. 231, IEC 348; complies with UL 1244
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Software & Programming

Command Language	HP-IB Electronic Load Language
GPIO Interface Compliance	IEEE-488.1
GPIO Capability Codes	SH1, AH1, T6, L4, SR1, RL1, PP0, DC1, DT1, C0

Inputs & Outputs

Trigger Input Connection	BNC female
Trigger Output Connection	BNC female

Performance

Warm-Up Time	30 minutes
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TECHNOLOGY

Analog and digital electronic loading with GPIO control

APPLICATIONS

Automated testing of power supplies, batteries, and power components

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