

H31003 High Voltage Amplifier

Innovation & Ingenuity, for World-Class Products

- ✓ **HV Amplification:** $\pm 10\text{KV}$ (20KVpp)
- ✓ **Powerful Output:** $\pm 3\text{mA}$, 30W (across full band)
- ✓ **Large Signal Bandwidth:** DC- 1.5kHz



H31003

Huatek **H31003** is an outstanding desktop high voltage amplifier.

H31003 not only has variable digital gain and offset adjustment, it also has a unique transient protection mode (Hiccup) with auto-recovery from a fault. It's excellent performance and form factor can be applied in various high voltage scenarios.

Features

Digital Gain

- ✓ 0-2000,0.1 step

Ensured Rated Output Across Full Band with Effective Compensation

- ✓ Max $\pm 10\text{V}$ input
- ✓ Gain 0-2000 adjustable, 0.1 step

Build-in DC HV Source

- ✓ $\pm 10\text{KV}$, 1V step, digital adjustment
- ✓ Use as DC Source separately, or offset of AC output

Monitor

- ✓ Voltage Monitor, Current Monitor

Intelligent Protection

- ✓ Overload, Short Circuit
- ✓ Single Mode, Hiccup Mode (Auto-Recovery)
- ✓ One-key lock

Intelligent Cooling

- ✓ On Demand Air cooling
- ✓ Low Noise; ensuring component and circuit long term reliability

Control

- ✓ USB (TYPE C) , easy for control and integration

LCD Display

- ✓ voltage, protection, gain

Typical Applications

- Piezoelectric and MEMs
- Nano technology and Microfluidics
- Electron and Magnetic field drives
- Transducer
- Electroluminescence
- Plasma excitation
- Material Science
- HV insulation cable test
- Power electronics
- Electrohydraulic Printing (EHD)
- Dielectric Elastomers
- Electrostatic research
- Electroluminescence

Specifications

Max. Output Voltage	±10kV(20kVp-p)
Max. Output Current	±3mA, across full frequency range
Peak Output Power	30W
Output Impedance	1KΩ
HV Output Connector	4mm HVconnector
Large Signal Bandwidth(-3dB)	DC-1.5kHz
Small Signal Bandwidth(-3dB)	DC-7.5kHz
Slew Rate	>67V/us
Voltage Gain	0-2000.0, 0.1 step
DC Voltage Source	±10KV, 1V step
Response Time	<166.6μs
Zero Drift	<±500mV
Max. Input Voltage	±10V
Input Impedance	10KΩ
Input Connector	BNC
Output Protection	Overload, Short Circuit
Protection Mode	Singel, Hiccup (Auto Recovery)

Voltage Monitor	1V/2000V
Current Monitor	1V/mA
V/I Monitor Output Impedance	50Ω
V/I Monitor Output Connector	BNC
THD	-
Communication Interface	USB-C
Power Supply	AC 220V
Operating Environment	0~45 °C/≤ 85% RH Non condensation /Altitude up to 2000 meters
Stability	Non-cumulative drift:<50ppm/h Temperature-drift: 100ppm/°C 23°C±3°C, preheating for 30min
Dimensions (exclude protrusions)	133mm*330mm*440 (H*W*D)
Weight	15Kg

Configurations

Included in Standard Shipment

amplifier*1、 manual*1、 HV output Cable*1、 BNC-BNC cable*3、 Power line*1、 Type-C cable*1

Optional Accessories

HV attenuation probe、 customized made HV output cable (available in various length)

