

Hyacinth Technology, Inc.'s DC coupled high-voltage amplifiers may be used in a wide variety of high-performance OEM and scientific applications requiring rapidly changing high-voltage signals and the ability to both *source and sink current*. Our proprietary scaleable high-efficiency topologies allow high-speed performance while maintaining low quiescent power requirements. Designs for voltage swings from less than 100 V to over 2 kV are available and may be packaged in various form factors with or without a built-in high-voltage bias converter.

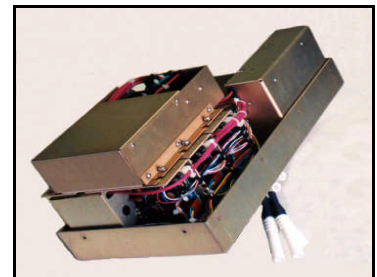
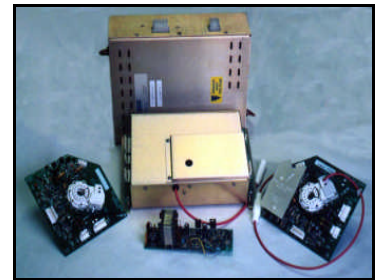
Contact Hyacinth Technology, Inc. with details about your application.

Applications include:

- X-ray beam blanking
- Electrostatic deflection of electron beams
- Ink-jet printers
- Piezoelectric devices
- Electro-optical devices
- Electrophoresis
- Dynamic focus for CRTs, both raster mode and calligraphic mode
- G2 and G1 grid modulation

Some available options:

- High CMRR differential mode inputs
- Built-in bias supply
- Built-in adjustable/programmable high-voltage offset converter
- Logic compatible enable input



The following are typical performance parameters for a 300 V and 1600 V amplifier. Slew rate, bandwidth and output current capability are largely dependent on available power and thermal constraints. *Consult with our engineers with details of your particular application.*

Typical Performance Parameters - 300 V Amplifier for electrostatic application

| | |
|---|--------------------|
| Gain: | 60 V/V |
| Rated voltage swing: | 300 V peak-to-peak |
| Settling time to within 10% of step, 300 V output step, 20 pF load: | 3 us typ. |
| Bandwidth, referenced to 300 Vp-p @ 1 kHz, 20 pF load: | 150 kHz min. |
| Input bias voltage: | 330 VDC |
| Input bias current, quiescent: | 1.5 mA |
| Input bias current, 300 Vp-p sine @ 150 kHz, 20 pF load: | 4.0 mA |

Typical Performance Parameters - 1600 V Amplifier for electrostatic application

| | |
|---|-----------------------|
| Gain: | 160 V/V |
| Rated voltage swing: | +/-800 V peak-to-peak |
| Settling time to within 1% of step, 1600 V output step, 20 pF load: | 11 us typ. |
| Bandwidth, referenced to 800 Vp-p @ 10 kHz, 20 pF load: | 128 kHz min. |
| Rise/fall time, 800 Vp-p, 20 pF load: | 2.7 us |
| Slew rate, 1500 Vp-p, 20 pF load: | 240 V/us |
| Input bias voltage: | +/-900 VDC |
| Input bias current, quiescent: | 3.0 mA |
| Input bias current, 800 Vp-p sine @ 64 kHz, 20 pF load: | 12 mA |