

## 3300A Spindle Motor SmartDriver Board

To be used only with the 3300A-8 Test System.

For stand-alone driver, see 3400A.

- **Easy to Use:**
  - Setup through a simple PC program
  - Operate the motor through PC program or use stand-alone
- **Speed control:** High-resolution for accuracy and precision with or without load (.02%-.08% depending on motor speed and number of poles)
- **Low Jitter:** Typically <1uS
- **Motor speed:** Maximum 30K RPM
- **Programmable motor power supply**
  - 0-24V, 0-4A output
  - Better than +/-1% Voltage Output Adjustment Accuracy
- **Over-current and lock rotor protection:** Virtually eliminates motor or driver damage
- **Unique design:**
  - All-digital design. No pots to adjust.
  - Unidirectional motor quick start: No reverse motor rotation
  - Constant current ramp for short start time and motor protection
  - 200 kHz PWM current regulator for better speed control and efficiency
- **Communication with driver through RS232 port allows:**
  - Motor Configuration for Speed; Motor poles; Max drive current; Over-current limit: start and run; Time limit expired: start, ramp, lock
  - Motor Control Commands for Run; Coast; Brake; Stop; Clear errors; Reset
  - Data Query for Run current; Speed; State: off, starting, ramping locking, locked, active brake, coasting, braking; Over-current limit error: start, run; Time limit expired error: start, ramp, lock
- **Easy integration into your test environment:**
  - Communicate through a standard RS232 (USB adaptor available)
  - LabVIEW Library and example code
  - Windows DLL
- Digital I/O motor control:
  - Input for controlling run/stop
  - Output to indicate speed lock/error
- **Instrumentation interface signals:**
  - Current sense resistor: direct differential connection
  - Run-current voltage: amplified to 1Amp/Volt Scale with analog ground
  - Once-per-rev index digital output

### Includes:

- SmartDriver Configuration Utility