

Analog Tech Talk



LUNCH AND LEARN!

Linear and PWM Power Amplifiers, Voltage References

Invite an Apex Application Engineer to your place for a lunchtime analog technical seminar on a design topic of your choosing (select from the list below). *And lunch is on us!*

Real World Issues

Power Operational Amplifiers

Electrical Limitations

- Slew Rate • Saturation
- Current Limit • Common Mode

Amplifier Protection

- Input • Output • Power Supply

Safe Operating Area

- Thermal
- Second Breakdown
- Output/Voltage Limits

Stability and Compensation

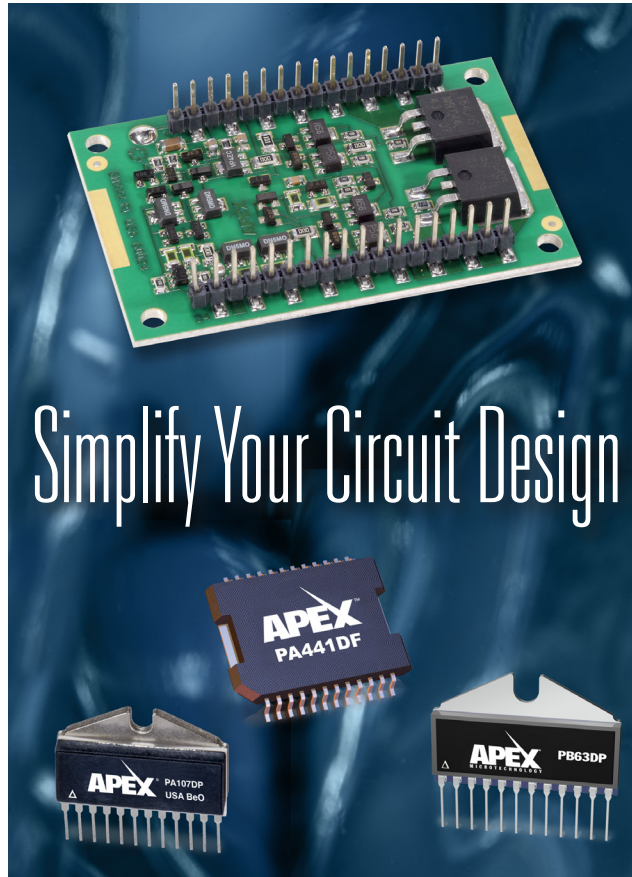
- Gnd-Loop: supply lines, output stage, grounding

Loop Stability

- Open Loop Phase Margin
- Rate-of-closure • $1/\beta$ Techniques

Real World Stability Tests

- Where Theory Meets Reality



High Speed Techniques

- Speed Versus Bandwidth

Real World Applications (Single Supply, Bipolar Supply, Asymmetrical Supply)

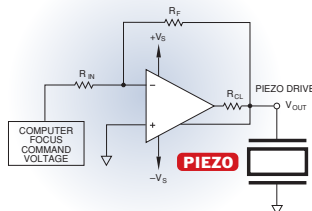
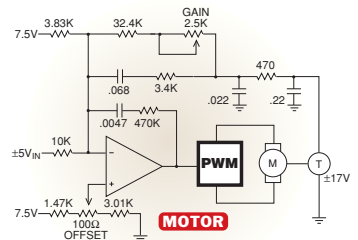
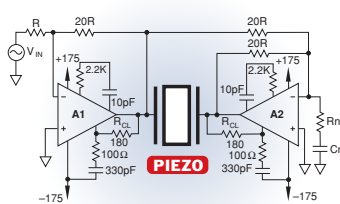
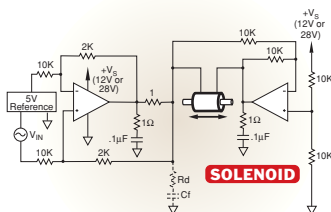
- Customer Specific Applications
- Motion Control
- ATE: programmable power supplies
- Sources: AC/DC
- Deflection: electromagnetic, electrostatic
- Piezo Drives

Pulse Width Modulation Amplifiers

- Design
- Applications

Precision Voltage References

- Understanding the Subtleties
- How to Select



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