POWER SOLUTIONS FOR PRECISION TECHNOLOGY SIGNAL CHAINS

PRECISION HIGH VOLTAGE
High Differential Voltage Measurement
Performance/Size Optimized

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For the resources:

APPENDIX

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<td>LT3471</td>
<td>Dual 1.3A, 1.2MHz Boost/Inverter in 3mm x 3mm DFN</td>
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<tr>
<td>LT8604</td>
<td>High Efficiency 42V/120mA Synchronous Buck</td>
</tr>
<tr>
<td>LT8570-1</td>
<td>Boost/SEPIC/Inverting DC/DC Converter with 65V Switch, Soft-Start and Sync.</td>
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The Power Components are listed on the Appendix, and you may click on the part to go through its product page online.

For the individual pages:

Left-click the specific signal chain to go through its respective block diagram or power tree.

Non-isolated

PARAMETER

Supply Voltage
Supply Current
PSRR
APPENDIX

Parts Guide
Power Requirements

USER GUIDE

Power Solutions for Precision Technology Signal Chains

Precision High Voltage

Non-isolated

Multichannel

High Differential Voltage Measurement
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LT1997-2 AMP

V+

V−

AD5522

PMU DAC & ADC

DVCC

AVDD

AVSS

VOUT

ADP7118
LDO

VIN

VOUT

ADP7118
LDO

VOUT

ADP7182
LDO

VOUT+

VOUT−

VOUT+

VOUT−

DC

DC

DC

VOUT+

VOUT−

VOUT+

VOUT−

VOUT+

VOUT−

LT3471-DUAL

LT3471-DUAL

LT8806

LT8580

5V

12V

24V

5V

15V

-15V

15.5V

-15.5V

5V

12V

24V

CONTROLLER

SUPPLY

5V

12V

24V

VOUT−

VOUT+

VOUT−

VOUT+
## Precision High Voltage

### PART # | DESCRIPTION
--- | ---
**LT3471** | Dual 1.3A, 1.2MHz Boost/Inverter in 3mm ×3mm DFN
**LT8580** | Boost/SEPIC/Inverting DC/DC Converter with 1A, 65V Switch, Soft-Start and Synchronization
**LT8606** | 42V, 350mA Synchronous Step-Down Regulator with 2.5μA Quiescent Current
**ADP7118** | 20V, 200mA, Low Noise, CMOS LDO Linear Regulator
**ADP7182** | –28V, –200mA, Low Noise, Linear Regulator

- **Non-isolated**
- **Multichannel**

**High Differential Voltage Measurement**

**Performance/Size Optimized**
### POWER REQUIREMENTS

<table>
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<th>STAGES</th>
<th>PMU DAC &amp; ADC</th>
<th>Amplifier</th>
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<tbody>
<tr>
<td></td>
<td>Part #</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Pin</td>
<td>AD5522</td>
<td>LT1997-2</td>
</tr>
<tr>
<td>Supply Voltage</td>
<td>V</td>
<td>15</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td></td>
<td>-15</td>
<td>15</td>
</tr>
<tr>
<td>Supply Current</td>
<td>mA</td>
<td>36</td>
<td>1.5</td>
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<tr>
<td></td>
<td></td>
<td>-36</td>
<td>0.6</td>
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<tr>
<td>PSRR</td>
<td>dB</td>
<td>45 (100kHz)</td>
<td>50 (100kHz)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>50 (100kHz)</td>
<td>50 (100kHz)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>80 (100kHz)</td>
<td>30 (100kHz)</td>
</tr>
</tbody>
</table>

**Note 1:** The supply currents indicated are the maximum quiescent current of the supply rails. For overall full load or short circuit current specifications, refer to the datasheets of the signal chain components.

**Note 2:** The supply voltages indicated are the values for typical applications.

**Note 3:** Consult the corresponding datasheets for details on power dissipation if needed.

**Note 4:** The actual supply current requirement shall be multiplied depending on the number of channels on the signal chain.