



# ANALOG DEVICES PRECISION High Voltage High Voltage Drive Instructions

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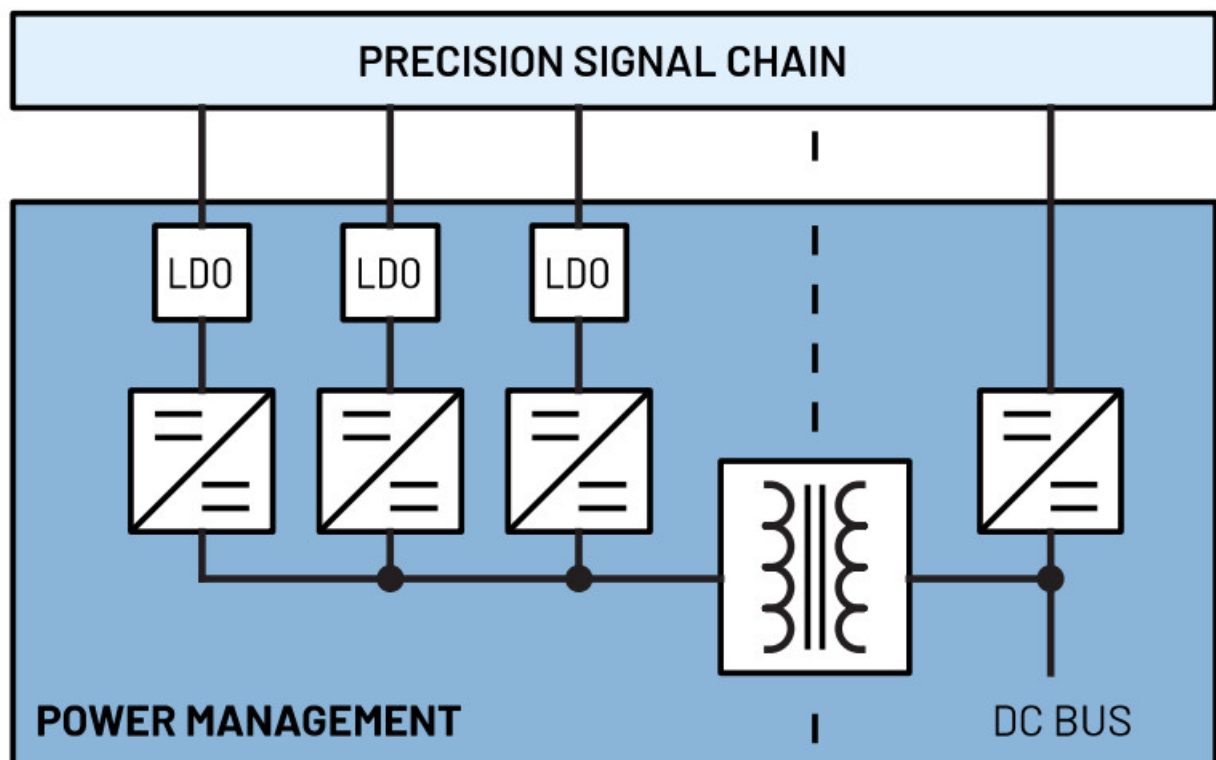
AHEAD OF WHAT'S POSSIBLE™

PRECISION HIGH VOLTAGE

High Voltage Drive

Rev. 0 | Mar. 2022

USER GUIDE



## Contents

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## PRECISION High Voltage High Voltage Drive

### POWER SOLUTIONS FOR PRECISION TECHNOLOGY SIGNAL CHAINS

This document is interactive. You can click on any underlined text to navigate through the document.

For the resources:

APPENDIX	<a href="#">Parts Guide</a>
	<a href="#">Power Requirements</a>

Left-click the Parts Guide and Power Requirements to go through the list of power devices and other references.

The Power Components are listed on the Appendix, and you may click on the part to go through its product page online.

PART #	DESCRIPTION
<a href="#">LT3471</a>	Dual 1.3A, 1.2MHz Boost/Inverter in 3mm × 3mm DFN
<a href="#">LT8604</a>	High Efficiency 42V/120mA Synchronous Buck
<a href="#">LT8570-1</a>	Boost/SEPIC/Inverting DC/DC Converter with 65V Switch, Soft-Start and Sync.

For the individual pages:

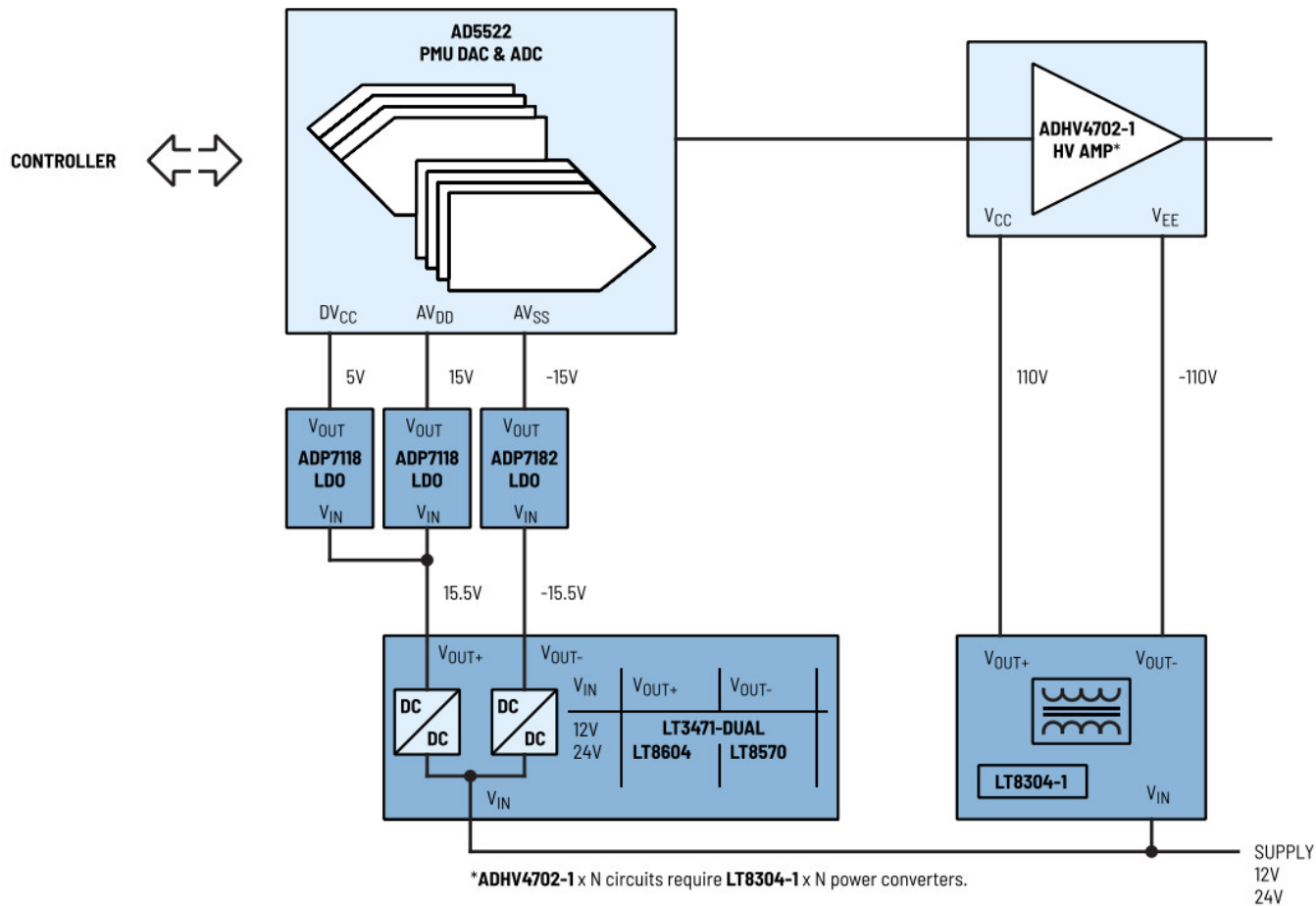
Left-click the specific signal chain to go through its respective block diagram or power tree.

Non-isolated	<div>POWER RE</div> <table><tr><th>PARAMETER</th></tr><tr><td>Supply Voltage</td></tr><tr><td>Supply Current</td></tr><tr><td>PSRR</td></tr></table>	PARAMETER	Supply Voltage	Supply Current	PSRR
PARAMETER					
Supply Voltage					
Supply Current					
PSRR					
<u>1-Channel</u>					

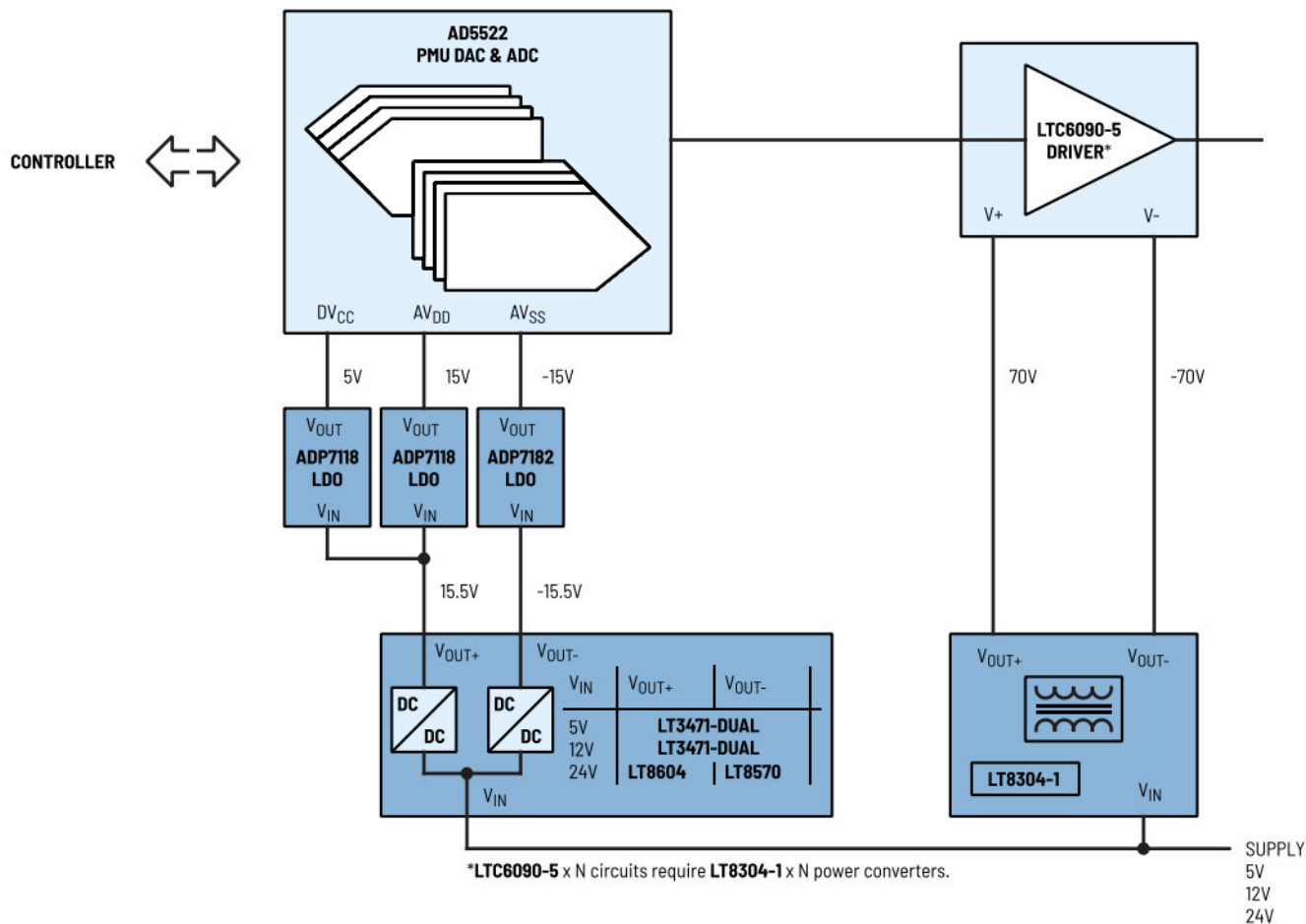
Precision High Voltage  
High Voltage Drive

APPENDIX	Parts Guide
	Power Requirements

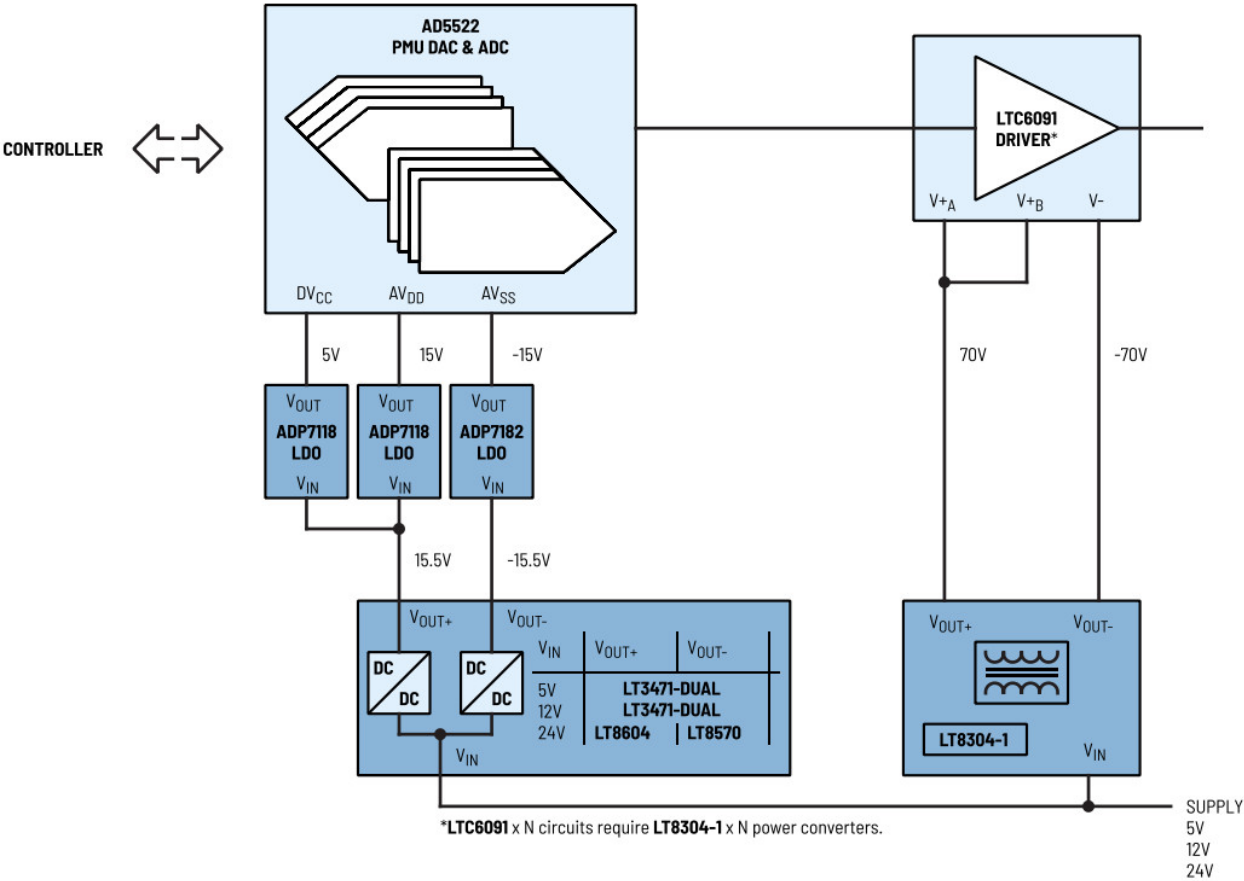
Non-isolated; Multichannel  
With ADHV4702-1 Driver



## With LTC6090 Driver



With LTC6091 Driver



PART #	DESCRIPTION
LT8304-1	100VIN Micropower No-Opto Isolated Flyback Converter with 150V/2A Switch
LT3471	Dual 1.3A, 1.2MHz Boost/Inverter in 3mm ×3mm DFN
LT8570	Boost/SEPIC/Inverting DC/DC Converter with 65V Switch, Soft-Start and Sync.
LT8604	High Efficiency 42V/120mA Synchronous Buck
ADP7118	20V, 200mA, Low Noise, CMOS LDO Linear Regulator
ADP7182	–28V, –200mA, Low Noise, Linear Regulator

POWER REQUIREMENTS

PARAMETER	STAGES	PMU DAC & ADC			Driver	
	Part # Pin	AD5522			[1] ADHV4702-1 [2] LTC6090 [3] LTC6091	
		AVDD	AVSS	DVCC	VCC/V+	VEE/V-
Supply Voltage	V	15	-15	5	[1] 110 [2] 70 [3] 70	-250
Supply Current	mA	36	-36	1.5	[1] 3.3 [2] 4.3 [3] 4.3 (per amp)	-3.3 -4.3 -4.3 (per amp)
PSRR	dB	45 (10 0kHz)	50 (10 0kHz)	80 (10 0kHz)	[1] 35 (100kHz) [2] 80 (100kHz) [3] 75 (100kHz)	83 (100kHz) 40 (100kHz) 40 (100kHz)

**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.

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## Documents / Resources

	<p><b><a href="#">ANALOG DEVICES PRECISION High Voltage High Voltage Drive</a></b> [pdf] Instructions PRECISION High Voltage High Voltage Drive, PRECISION High Voltage, Voltage Drive, High Voltage Drive, PRECISION Drive</p>
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## References

- ▶ [Mixed-signal and digital signal processing ICs | Analog Devices](#)
- ▶ [ADP7118 Datasheet and Product Info | Analog Devices](#)
- ▶ [ADP7182 Datasheet and Product Info | Analog Devices](#)
- ▶ [AD5522 Datasheet and Product Info | Analog Devices](#)
- ▶ [ADHV4702-1 Datasheet and Product Info | Analog Devices](#)
- ▶ [LT3471 Datasheet and Product Info | Analog Devices](#)
- ▶ [LTC6090 LTC6090-5 Datasheet and Product Info | Analog Devices](#)
- ▶ [LTC6091 Datasheet and Product Info | Analog Devices](#)
- ▶ [LT8304 LT8304-1 Datasheet and Product Info | Analog Devices](#)
- ▶ [LT8570 Datasheet and Product Info | Analog Devices](#)
- ▶ [LT8604/LT8604C Datasheet and Product Info | Analog Devices](#)

