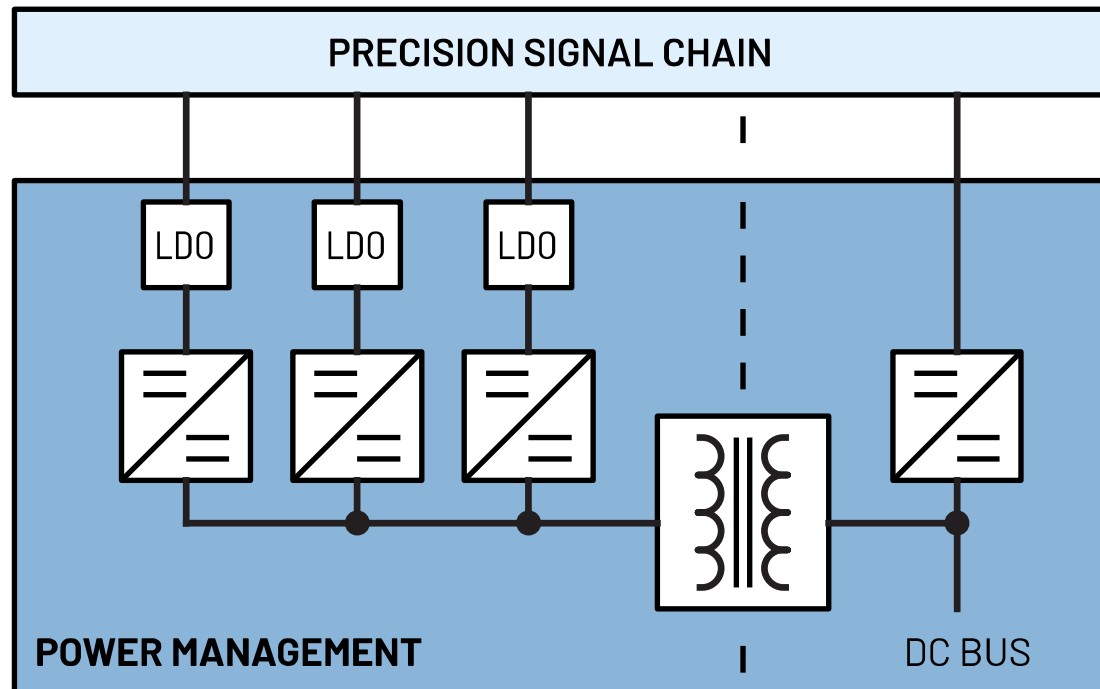


POWER SOLUTIONS FOR PRECISION TECHNOLOGY SIGNAL CHAINS

PRECISION NARROW BANDWIDTH
Adaptable Voltage and Current Measurement
Low Latency Measurement

Rev. 0 | Jan. 2022



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

For the resources:

APPENDIX	<u>Parts Guide</u>
	<u>Power Requirements</u>

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
<u>LT3471</u>	Dual 1.3A, 1.2MHz Boost/Inverter in 3mm x 3mm DFN
<u>LT8604</u>	High Efficiency 42V/120mA Synchronous Buck
<u>LT8570-1</u>	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

1-Channel

POWER RE	
PARAMETER	
Supply Voltage	
Supply Current	
PSRR	

APPENDIX

Parts Guide

USER GUIDE

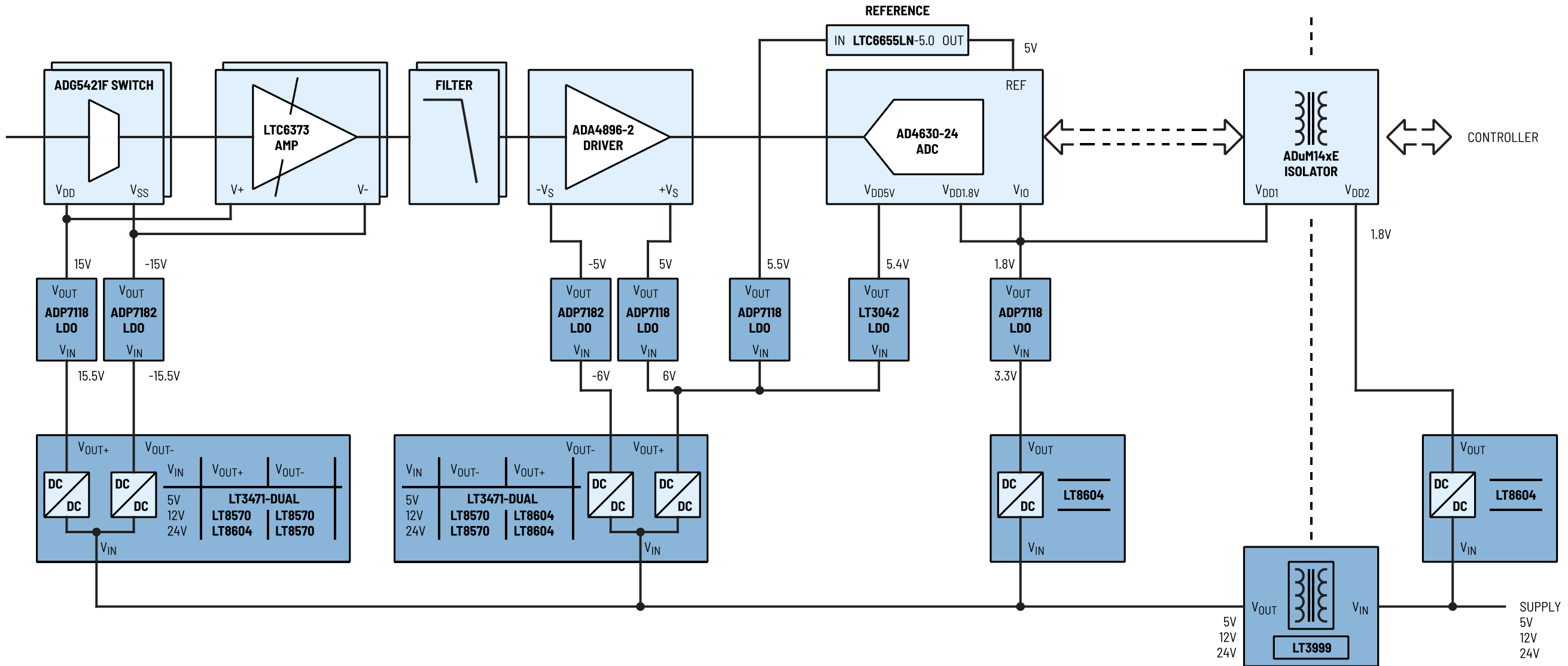
Power Requirements

Adaptable Voltage and Current Measurement

Low Latency Measurement

Isolated

Multichannel



Precision Narrow Bandwidth

Adaptable Voltage and Current
Measurement

Low Latency Measurement

Isolated

Multichannel

PART #	DESCRIPTION
<u>LT8604</u>	High Efficiency 42V/120mA Synchronous Buck
<u>LT3471</u>	Dual 1.3A, 1.2MHz Boost/Inverter in 3mm ×3mm DFN
<u>LT8570</u>	Boost/SEPIC/Inverting DC/DC Converter with 65V Switch, Soft-Start and Sync.
<u>LT3999</u>	Low Noise, 1A, 1MHz Push-Pull DC/DC Driver with Duty Cycle Control
<u>ADP7118</u>	20V, 200mA, Low Noise, CMOS LDO Linear Regulator
<u>ADP7182</u>	-28V, -200mA, Low Noise, Linear Regulator
<u>LT3042</u>	20V, 200mA, Ultralow Noise, Ultrahigh PSRR RF Linear Regulator

Adaptable Voltage and Current Measurement

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Isolated

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POWER REQUIREMENTS

PARAMETER	STAGES	Protection		Gain		Filter	ADC Driver		ADC			Reference	Isolation	
	Part #	ADG5421F		LTC6373		-	ADA4896-2		AD4630-24			LTC6655LN	ADuM14xE	
	Pin	V _{DD}	V _{SS}	V+	V-		+V _S	-V _S	V _{DD_1.8V}	V _{IO}	V _{DD_5V}	IN	V _{DD1}	V _{DD2}
Supply Voltage	V	15	-15	15	-15	-	5	-5	1.8	1.8	5.5	5.5	1.8	1.8
Supply Current	mA	0.205	-0.115	5.25	-5.25	-	2.9	-2.9	11.2	0.6	3.2	1.8	14	11.2
PSRR	dB	90 (1MHz)		130 (G=1)		-	123	121	-			40 (10kHz)	-	

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.