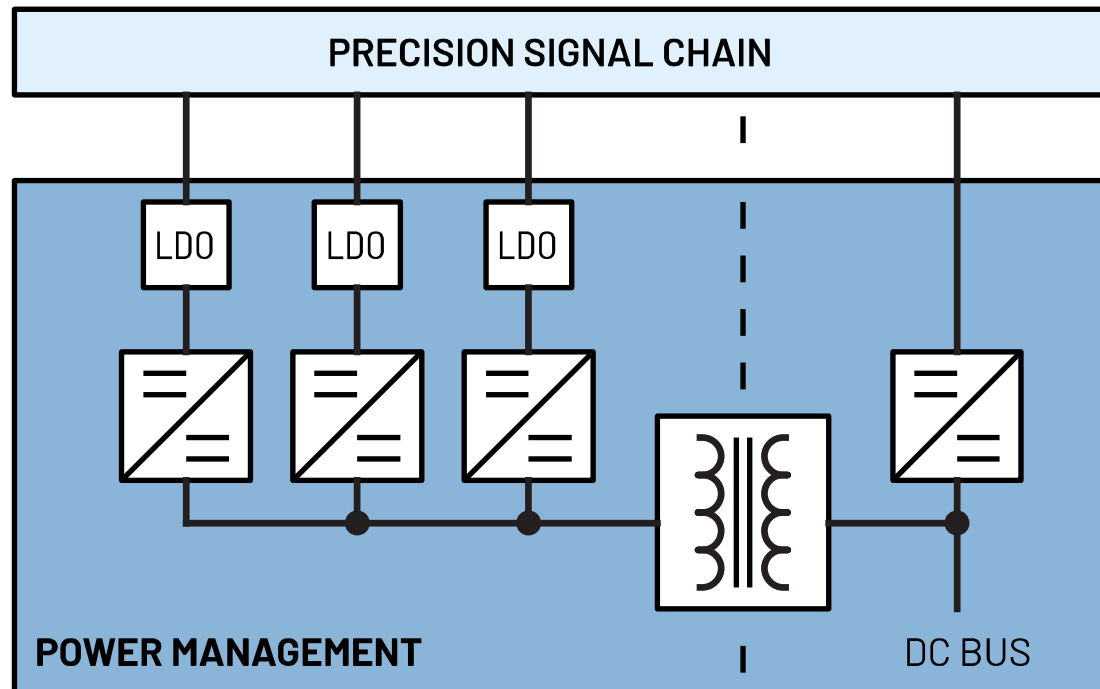


# POWER SOLUTIONS FOR PRECISION TECHNOLOGY SIGNAL CHAINS

## ISOLATED GATE DRIVE & SENSE Multichannel Monitoring for Power Conversion with Analog Isolation Low Propagation Delay

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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 × 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	<b>POWER RE</b>
<u>1-Channel</u>	
	<b>PARAMETER</b>
	Supply Voltage
	Supply Current
	PSRR

Isolated Gate Drive & Sense

APPENDIX

Parts Guide

USER GUIDE

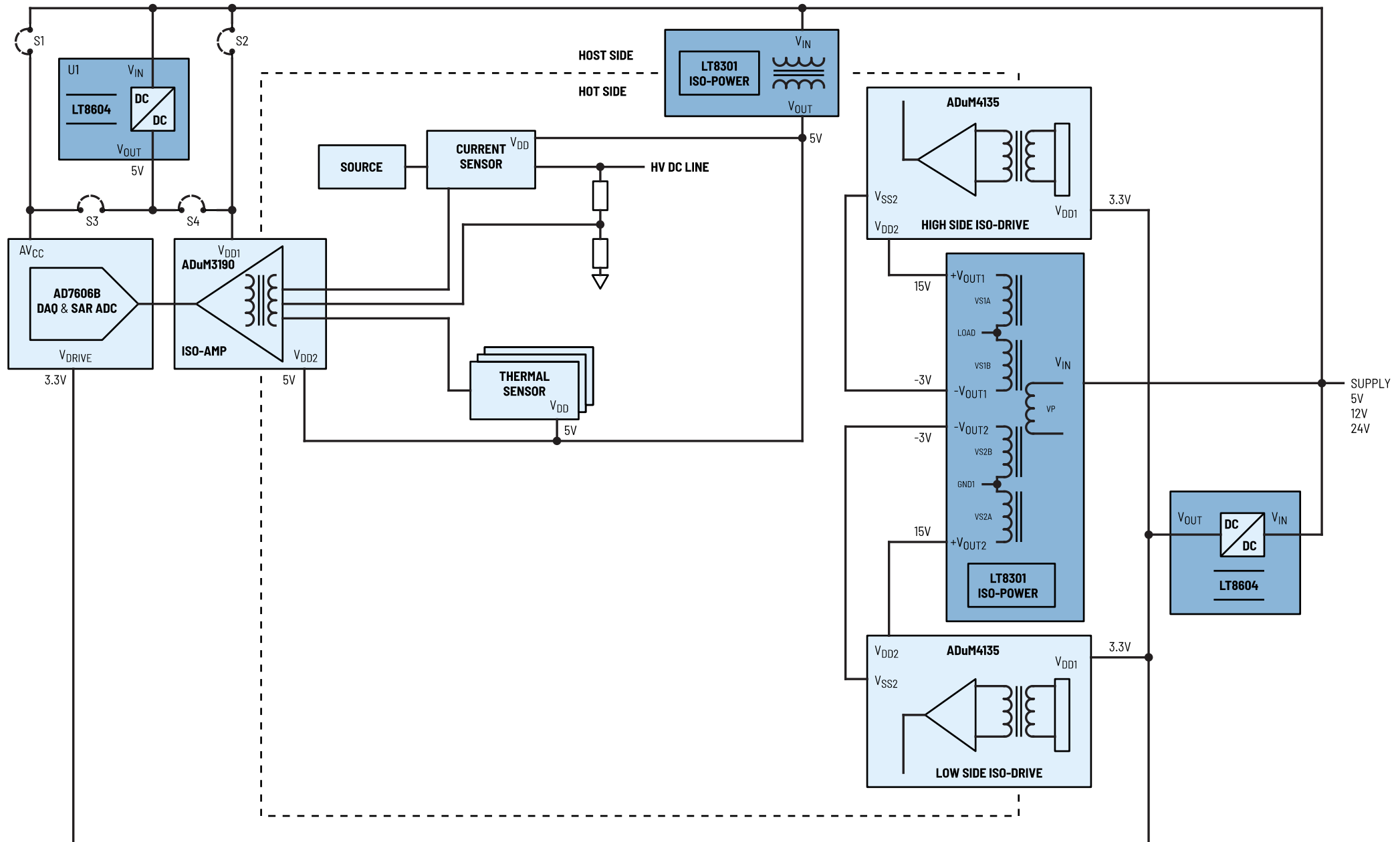
Power Requirements

Multichannel Monitoring for Power Conversion with Analog Isolation

Low Propagation Delay

Isolated  
Multichannel

CONDITION	USE U1?	S1	S2	S3	S4
IF $V_{IN} = 5V$	NO	SHORT	SHORT	OPEN	OPEN
IF $V_{IN} = 12V$	YES	OPEN	SHORT	SHORT	OPEN
IF $V_{IN} = 24V$	YES	OPEN	OPEN	SHORT	SHORT



## Isolated Gate Drive & Sense

Multichannel Monitoring for Power Conversion with Analog Isolation

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PART #	DESCRIPTION
<b>LT8604</b>	High Efficiency 42V/120mA Synchronous Buck
<b>LT8301</b>	42V <sub>IN</sub> Micropower No-Opto Isolated Flyback Converter with 65V/1.2A Switch

Isolated

Multichannel

# POWER REQUIREMENTS

PARAMETER	STAGES	Isolation		ADC		Isolated Gate Driver		
	Part #	ADuM3190		AD7606B		ADuM4135		
	Pin	V <sub>DD1</sub>	V <sub>DD2</sub>	V <sub>CC</sub>	V <sub>DRIVE</sub>	V <sub>DD1</sub>	V <sub>DD2</sub>	V <sub>SS2</sub>
Supply Voltage	V	5 or 12	5	5	3.3	3.3	15	-3
Supply Current	mA	2	5	47.5	1.5	6.39	4.95	6.21
PSRR	dB	60		68 (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.