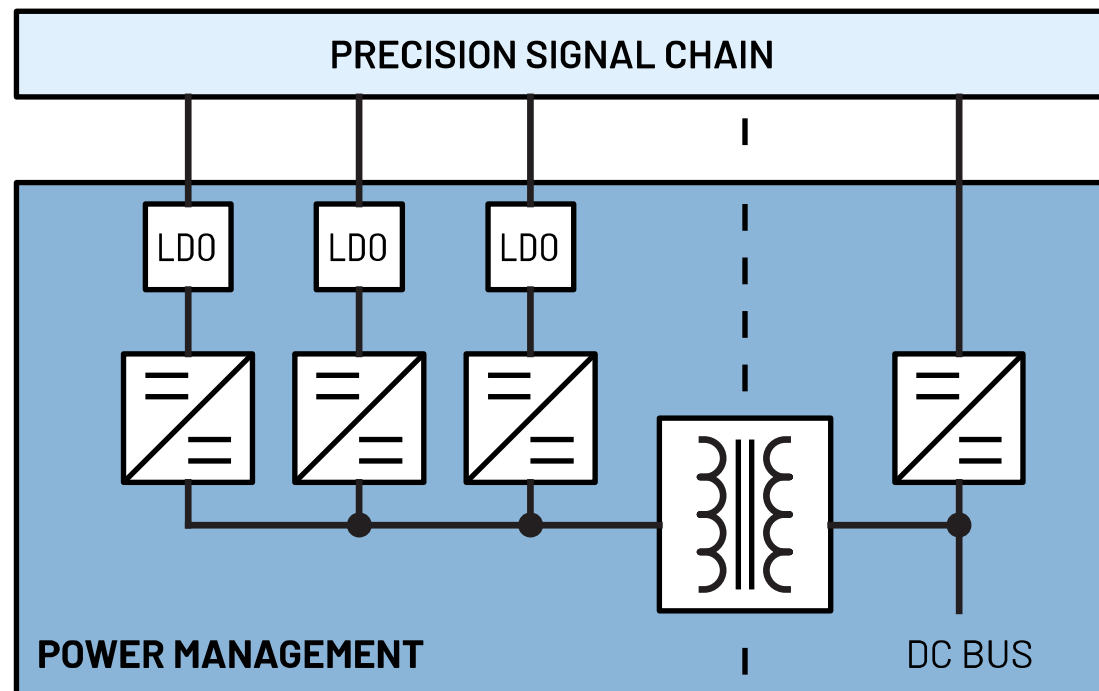


# POWER SOLUTIONS FOR PRECISION TECHNOLOGY SIGNAL CHAINS

## PRECISION CURRENT SENSING Current Measurement – Motor Control Inverter Shunt: Highest Measurement Precision

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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

# Precision Current Sensing

**APPENDIX**

[Parts Guide](#)

[Power Requirements](#)

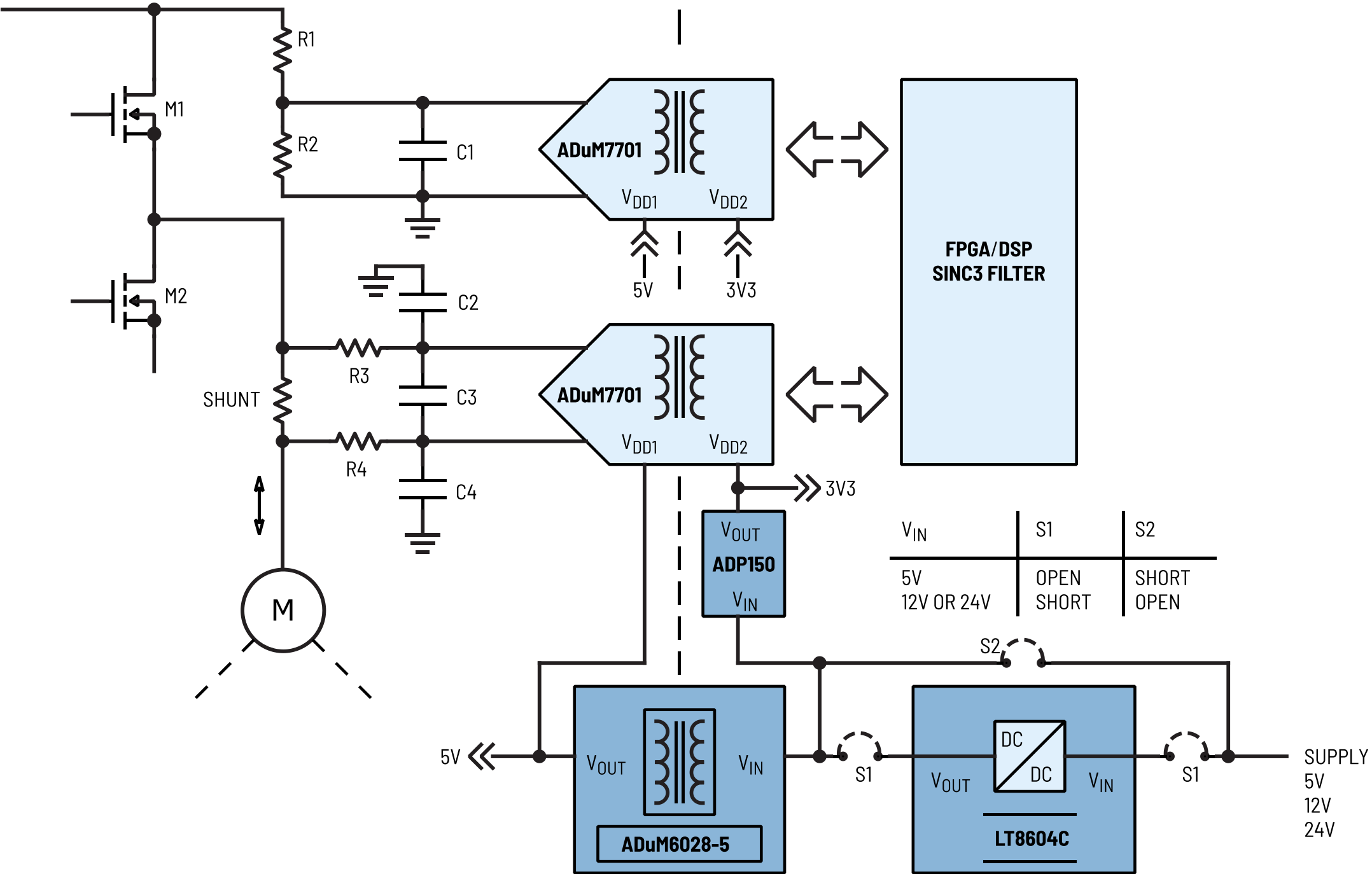
**USER GUIDE**

**Current Measurement – Motor Control  
Inverter**

**Shunt: Highest Measurement Precision**

Isolated

2-Channel



Precision Current Sensing

Current Measurement – Motor Control  
Inverter

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Isolated

2-Channel

PART #	DESCRIPTION
<b><u>ADuM6028-5</u></b>	Low Emission, 5 kV Isolated DC-to-DC Converter
<b><u>LT8604</u></b>	High Efficiency 42V/120mA Synchronous Buck
<b><u>ADP150</u></b>	Ultralow Noise, 150 mA CMOS Linear Regulator

Isolated

2-Channel

POWER REQUIREMENTS

PARAMETER	STAGES	Filter	ADC	
	Part #	-	ADuM7701	
	Pin		V <sub>DD1</sub>	V <sub>DD2</sub>
Supply Voltage	V	-	5	3.3
Supply Current	mA	-	10	3
PSRR	dB	-	100 (700kHz)	

**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: (1) power supply rejection ratio (PSRR) and (2) power dissipation.

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