

ANALOG DEVICES Power Solutions for Precision Technology Signal Chains User Guide

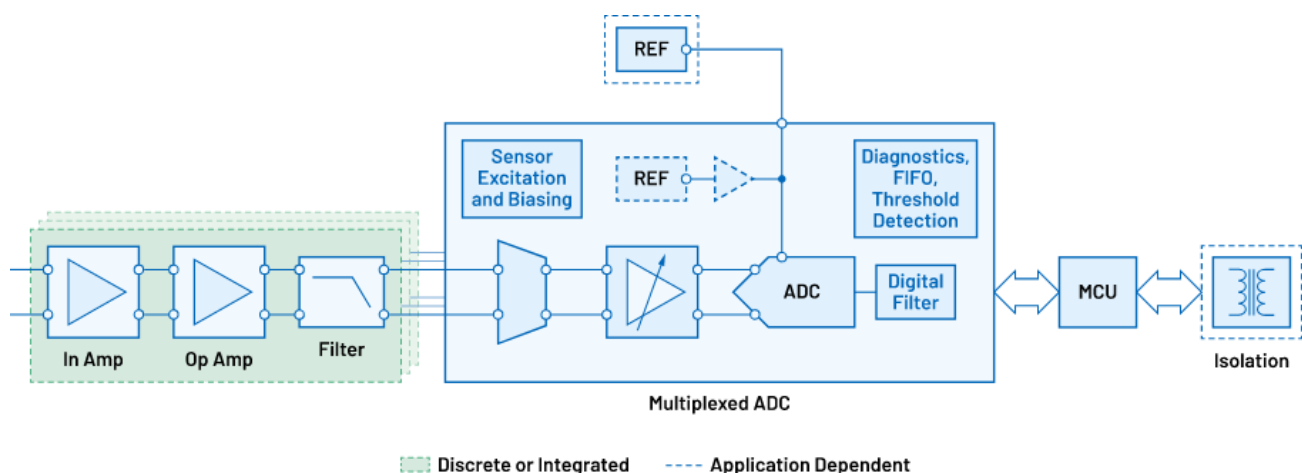
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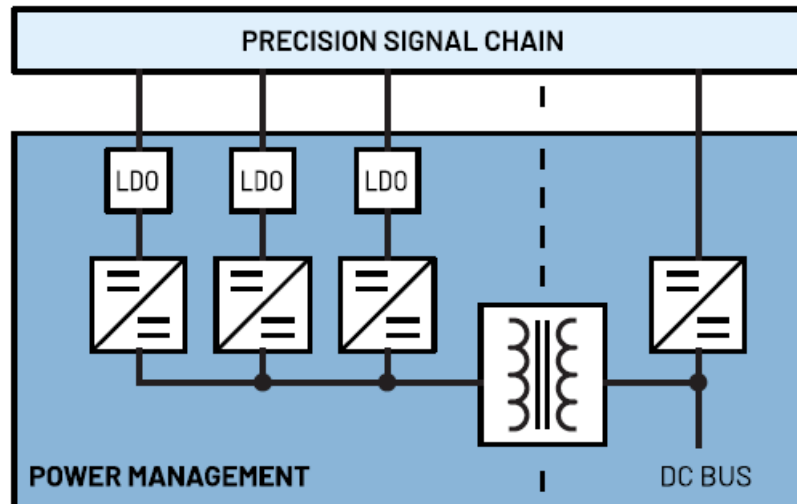


ANALOG DEVICES Power Solutions for Precision Technology Signal Chains



PRECISION CURRENT SENSING

Current Measurement – Motor Control Inverter High Power Current Transformer Sensor



USER GUIDE

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

For the resources:

APPENDIX	Parts Guide
	Power Requirements



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.

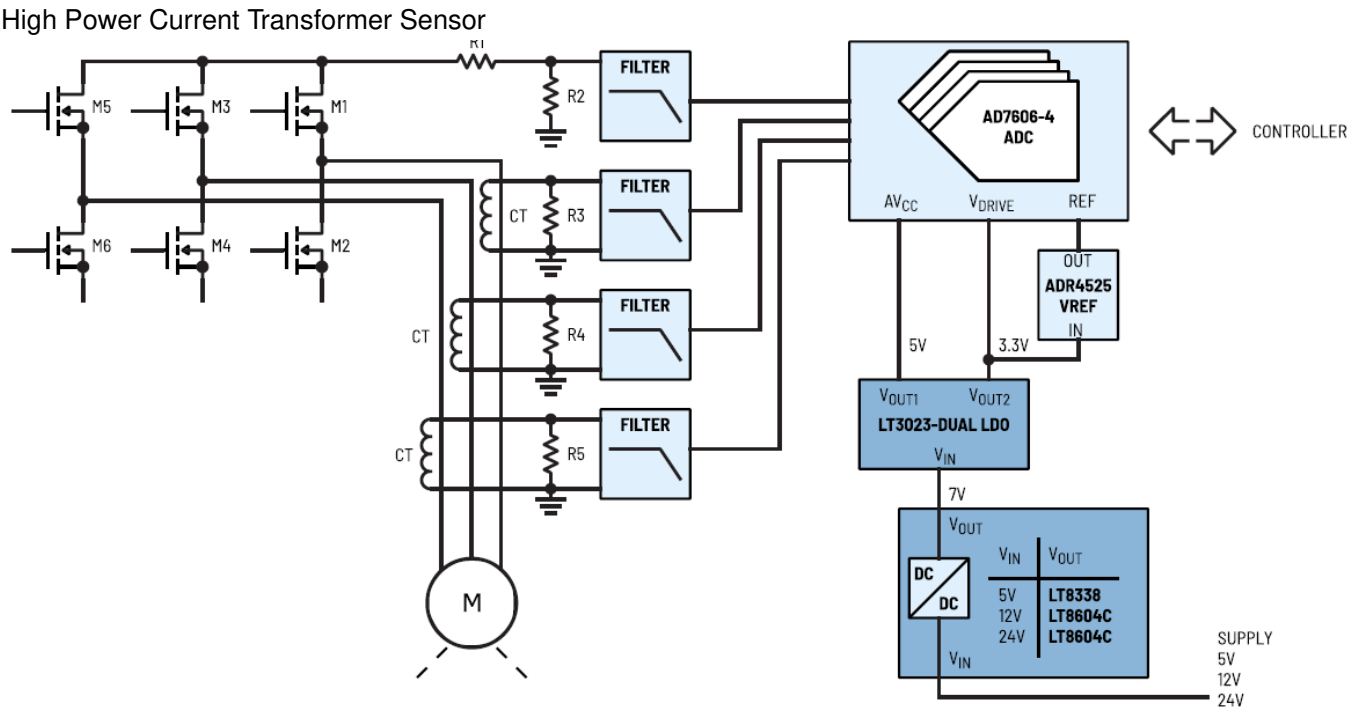
PART #	DESCRIPTION
LT3471	Dual 1.3A, 1.2MHz Boost/Inverter in 3mm × 3mm DFN
LT8604	High Efficiency 42V/120mA Synchronous Buck
LT8570-1	Boost/SEPIC/Inverting DC/DC Converter with 65V Switch, Soft-Start and Sync.

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	

Current Measurement – Motor Control Inverter



Precision Current Sensing

PART #	DESCRIPTION
LT8604	High Efficiency 42V/120mA Synchronous Buck
LT8338	40V, 1.2A Micropower Synchronous Boost Converter with Pass-Thru
LT3023	Dual 100mA, Low Dropout, Low Noise, Micropower Regulator

POWER REQUIREMENTS

PARAMETER	STAGES	Filter	ADC		Reference
	Part #	–	AD7606-4		ADR4525
	Pin		AV _{CC}	VDRIVE	IN
Supply Voltage	V	–	5	3.3	3.3
Supply Current	mA	–	21		0.95
PSRR	dB	–	130 (900kHz)		80 (1MHz)

- **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.

Documents / Resources

	<p>ANALOG DEVICES Power Solutions for Precision Technology Signal Chains [pdf] User Guide</p> <p>Power Solutions for Precision Technology Signal Chains, Power Solutions, Precision Technology Signal Chains Power Solutions, Signal Chains Power Solutions, Signal Chains</p>
	<p>ANALOG DEVICES Power Solutions for Precision Technology Signal Chains [pdf] User Guide</p> <p>Power Solutions for Precision Technology Signal Chains, Power Solutions, Precision Technology Signal Chains Power Solutions, Signal Chains Power Solutions, Signal Chains</p>
	<p>ANALOG DEVICES Power Solutions for Precision Technology Signal Chains [pdf] User Guide</p> <p>Power Solutions for Precision Technology Signal Chains, Power Solutions, Precision Technology Signal Chains Power Solutions, Signal Chains Power Solutions, Signal Chains</p>
	<p>ANALOG DEVICES Power Solutions for Precision Technology Signal Chains [pdf] User Guide</p> <p>Power Solutions for Precision Technology Signal Chains, Power Solutions, Precision Technology Signal Chains Power Solutions, Signal Chains Power Solutions, Signal Chains</p>

References

- [Mixed-signal and digital signal processing ICs | Analog Devices](#)
- [AD4000 Datasheet and Product Info | Analog Devices](#)
- [AD4683 Datasheet and Product Info | Analog Devices](#)
- [AD7172-4 Datasheet and Product Info | Analog Devices](#)
- [AD7606-4 Datasheet and Product Info | Analog Devices](#)
- [AD8418A Datasheet and Product Info | Analog Devices](#)
- [AD8479 Datasheet and Product Info | Analog Devices](#)
- [ADP150 Datasheet and Product Info | Analog Devices](#)
- [ADP225 Datasheet and Product Info | Analog Devices](#)
- [ADP7118 Datasheet and Product Info | Analog Devices](#)
- [ADR4525 Datasheet and Product Info | Analog Devices](#)
- [ADR4533 Datasheet and Product Info | Analog Devices](#)
- [ADR4550 Datasheet and Product Info | Analog Devices](#)
- [ADUM3471 Datasheet and Product Info | Analog Devices](#)
- [ADuM6028 Datasheet and Product Info | Analog Devices](#)
- [ADuM7703 Datasheet and Product Info | Analog Devices](#)
- [LT3023 Datasheet and Product Info | Analog Devices](#)
- [LT3032 Series Datasheet and Product Info | Analog Devices](#)
- [LT3472 Datasheet and Product Info | Analog Devices](#)
- [LT8338 Datasheet and Product Info | Analog Devices](#)
- [LT8604/LT8604C Datasheet and Product Info | Analog Devices](#)