

ANALOG DEVICES Generic Signal Chains for Current Measurement Contactless Sensing User Guide

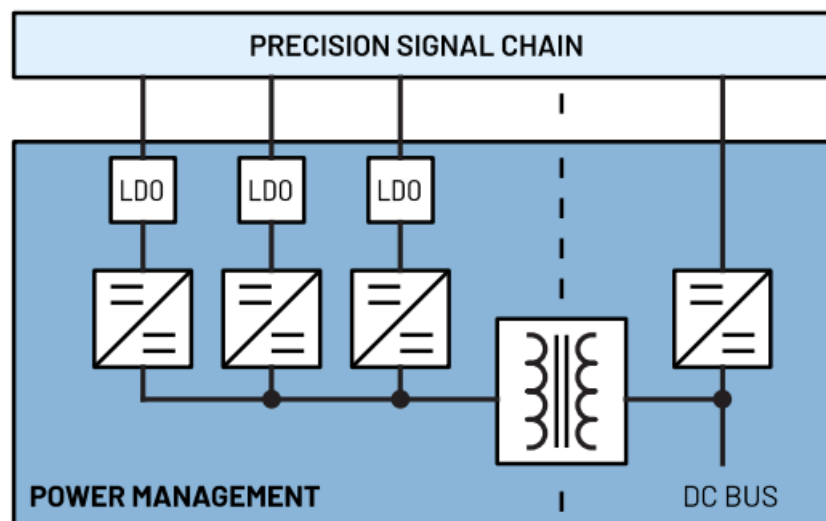
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ANALOG DEVICES Generic Signal Chains for Current Measurement Contactless Sensing



PRECISION CURRENT SENSING

Generic Signal Chains for Current Measurement Contactless Sensing – Hall 5V Output

PRECISION CURRENT SENSING CATALOG


GENERIC SIGNAL CHAINS FOR CURRENT MEASUREMENT	Input Voltage	5V
		12V
		24V
APPENDIX	Parts Guide	
	Power Requirements	

USER GUIDE

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

For the table of contents and resources

POWER OPTIMIZED		
CURRENT AND VOLTAGE MEASUREMENT	Non-isolated	1-Channel Signal Chain
		4-Channel Signal Chain
		8-Channel Signal Chain
	Isolated	1-Channel Signal Chain
		4-Channel Signal Chain
		8-Channel Signal Chain
APPENDIX	Parts Guide	
	Power Requirements	



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

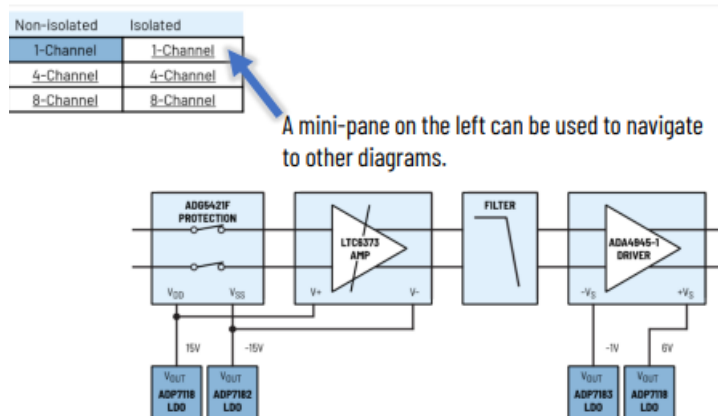
PART #	DESCRIPTION
LT3471	Dual 1.3A, 1.2MHz Boost/Inverter in 3mm × 3mm DFN
LT8604	High Efficiency 42V/120mA Synchronous Buck
LT8570-1	Boost/SEPIC/Inverting DC/DC Converter with 65V Switch, Soft-Start and Sync.

For the individual pages

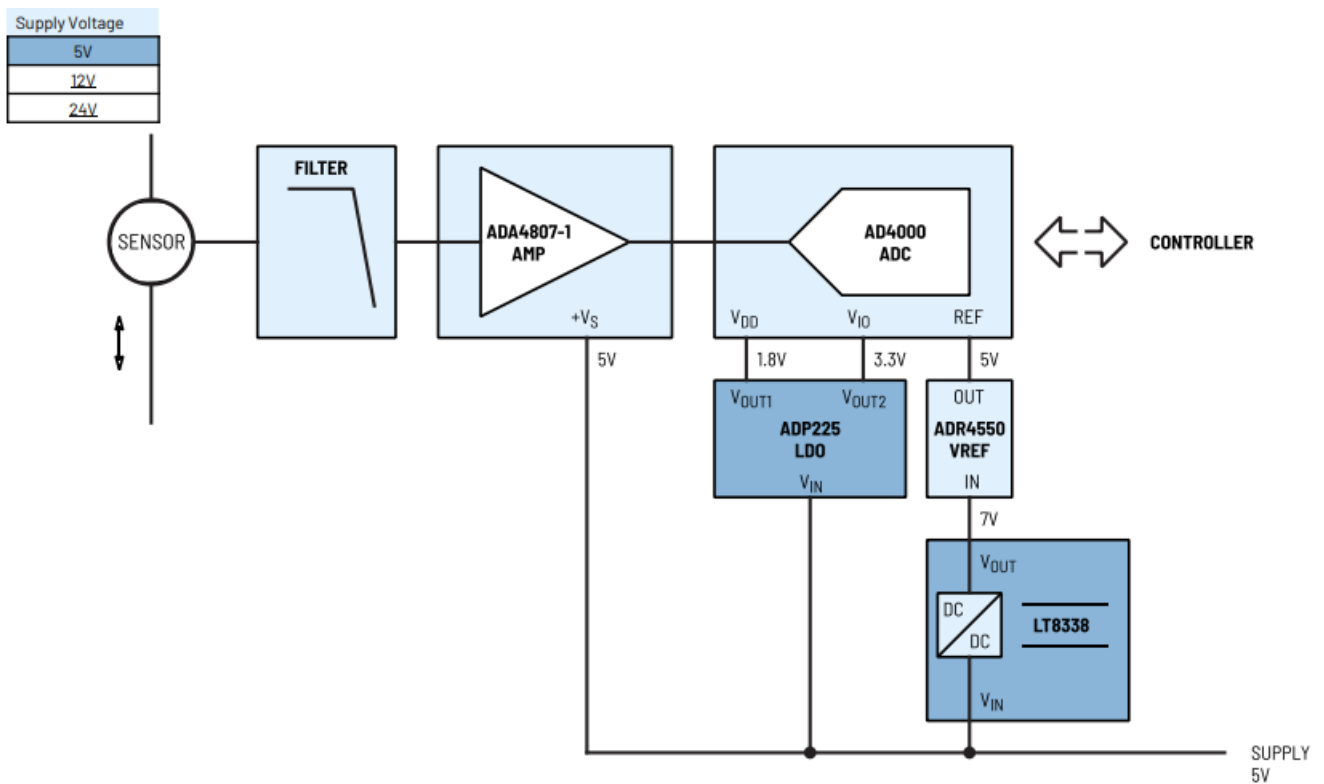
Current and Voltage Measurement

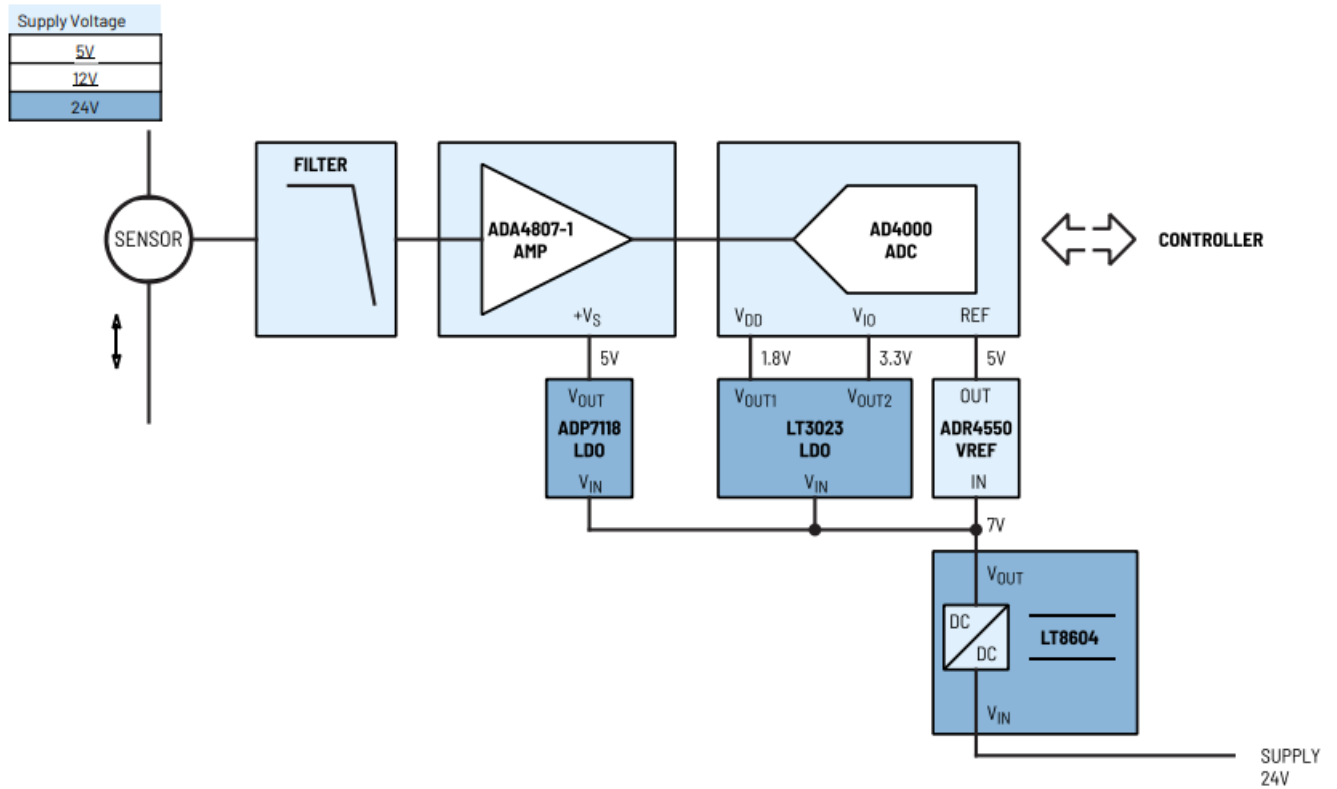
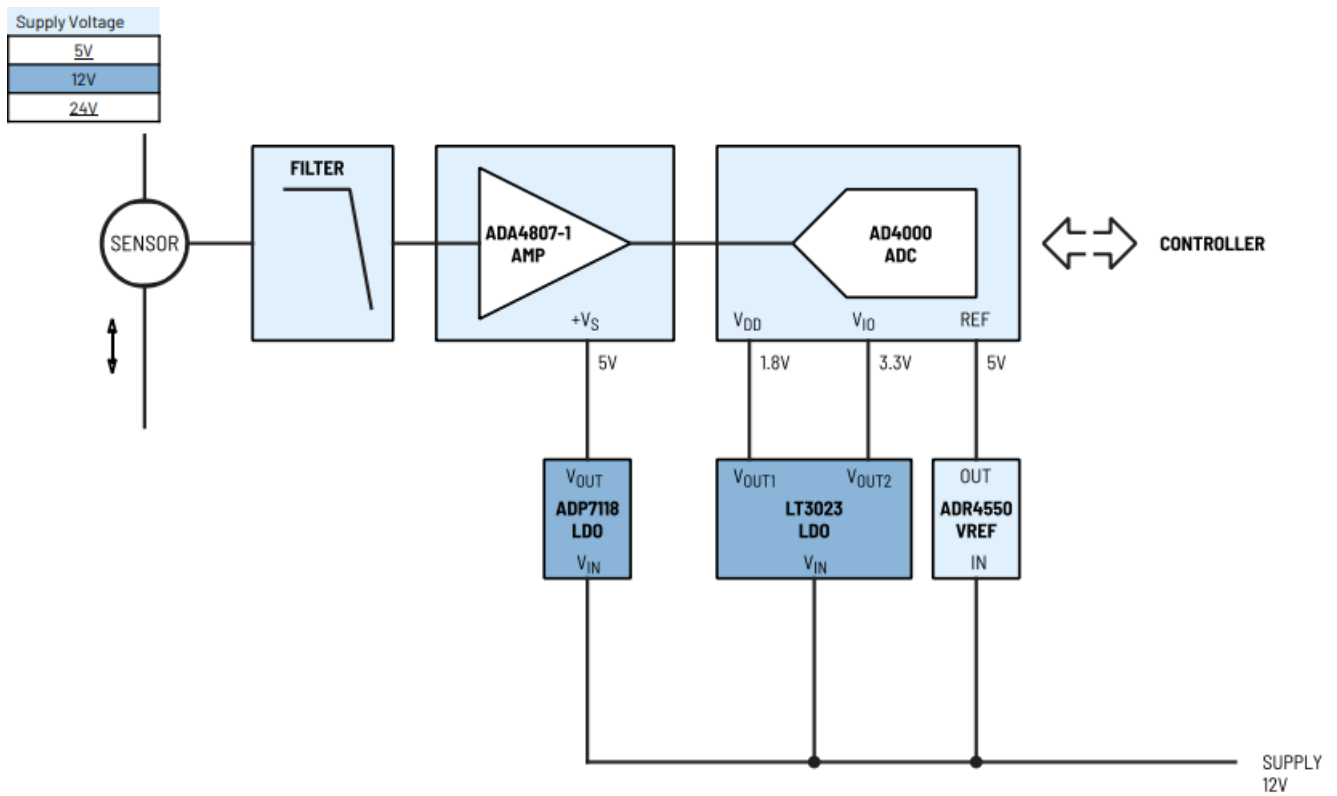
Noise and Bandwidth Optimized

Left-click the subcategory (in this case, **Noise and Bandwidth Optimized**) to return to the Table of Contents.



APPENDIX





PART #	DESCRIPTION
ADP7118	20 V, 200 mA, Low Noise, CMOS LDO Linear Regulator
ADP225	Dual, 300 mA Output, Low Noise, High PSRR Voltage Regulators, Adj. Output: 0.5 V to 5 V
LT3023	Dual 100mA, Low Dropout, Low Noise, Micropower Regulator
LT8338	40V, 1.2A Micropower Synchronous Boost Converter with Pass-Thru
LT8604	High Efficiency 42V/120mA Synchronous Buck

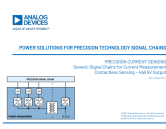

POWER REQUIREMENTS

PARAMETER	STAGES	Amplifier		Filter	ADC		Reference
	Part #	ADA4807-1		–	AD4000		ADR4550
	Pin	+V _S	-V _S		VDD	VIO	IN
Supply Voltage	V	5	0	–	1.8	3.3	7 (or 12)
Supply Current	mA	0.95	0.95	–	5.42	0.16	0.95
PSRR	dB	72 (1MHz)	47 (1MHz)	–	75 (200kHz)		60 (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.

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Documents / Resources

	<p>ANALOG DEVICES Generic Signal Chains for Current Measurement Contactless Sensing [pdf] User Guide</p> <p>Generic Signal Chains for Current Measurement Contactless Sensing, Generic Signal Chains, Current Measurement Contactless Sensing, Measurement Contactless Sensing, Contactless Sensing, Contactless</p>
	<p>ANALOG DEVICES Generic Signal Chains for Current Measurement Contactless Sensing [pdf] User Guide</p> <p>Generic Signal Chains for Current Measurement Contactless Sensing, Generic Signal Chains, Current Measurement Contactless Sensing, Signal Chains, Chains</p>

References

- [Mixed-signal and digital signal processing ICs | Analog Devices](#)
- [AD4000 Datasheet and Product Info | Analog Devices](#)
- [AD7606C-16 Datasheet and Product Info | Analog Devices](#)
- [ADA4807-1 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](#)
- [ADR4550 Datasheet and Product Info | Analog Devices](#)

- [▶ **LT3023 Datasheet and Product Info | Analog Devices**](#)
- [▶ **LT8338 Datasheet and Product Info | Analog Devices**](#)
- [▶ **LT8604/LT8604C Datasheet and Product Info | Analog Devices**](#)

Manuals+.