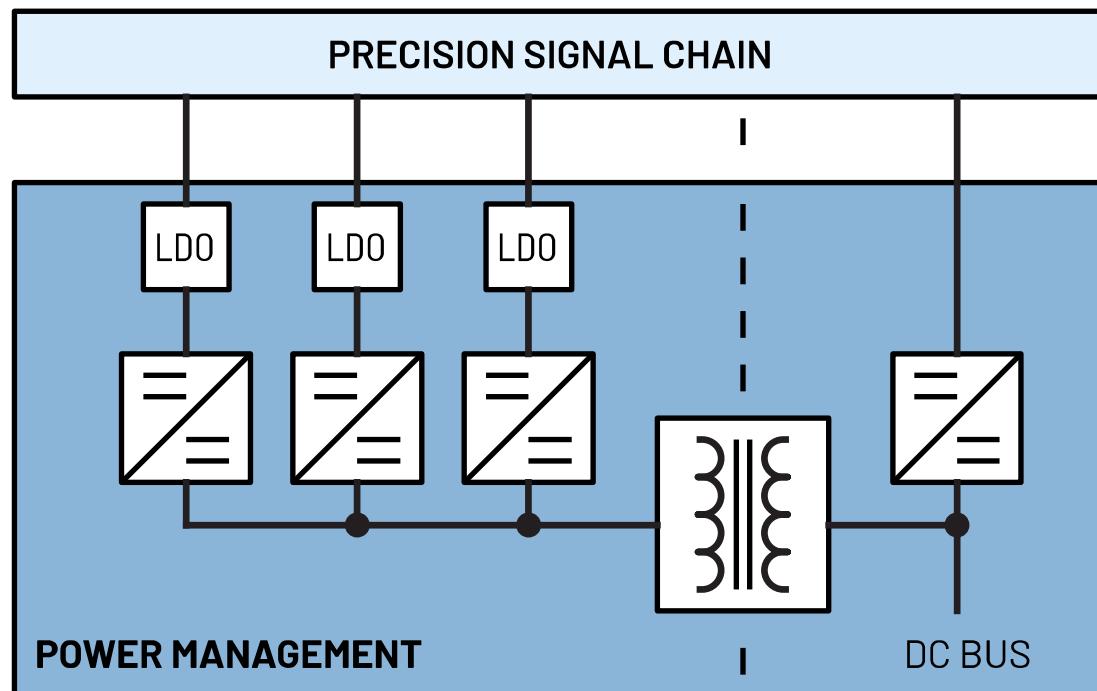


POWER SOLUTIONS FOR PRECISION TECHNOLOGY SIGNAL CHAINS

PRECISION MEDIUM BANDWIDTH
Edge Node Vibration Sensing
3-Axis Sensing

Rev. 0 | Aug. 2022



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

APPENDIX

[Parts Guide](#)

USER GUIDE

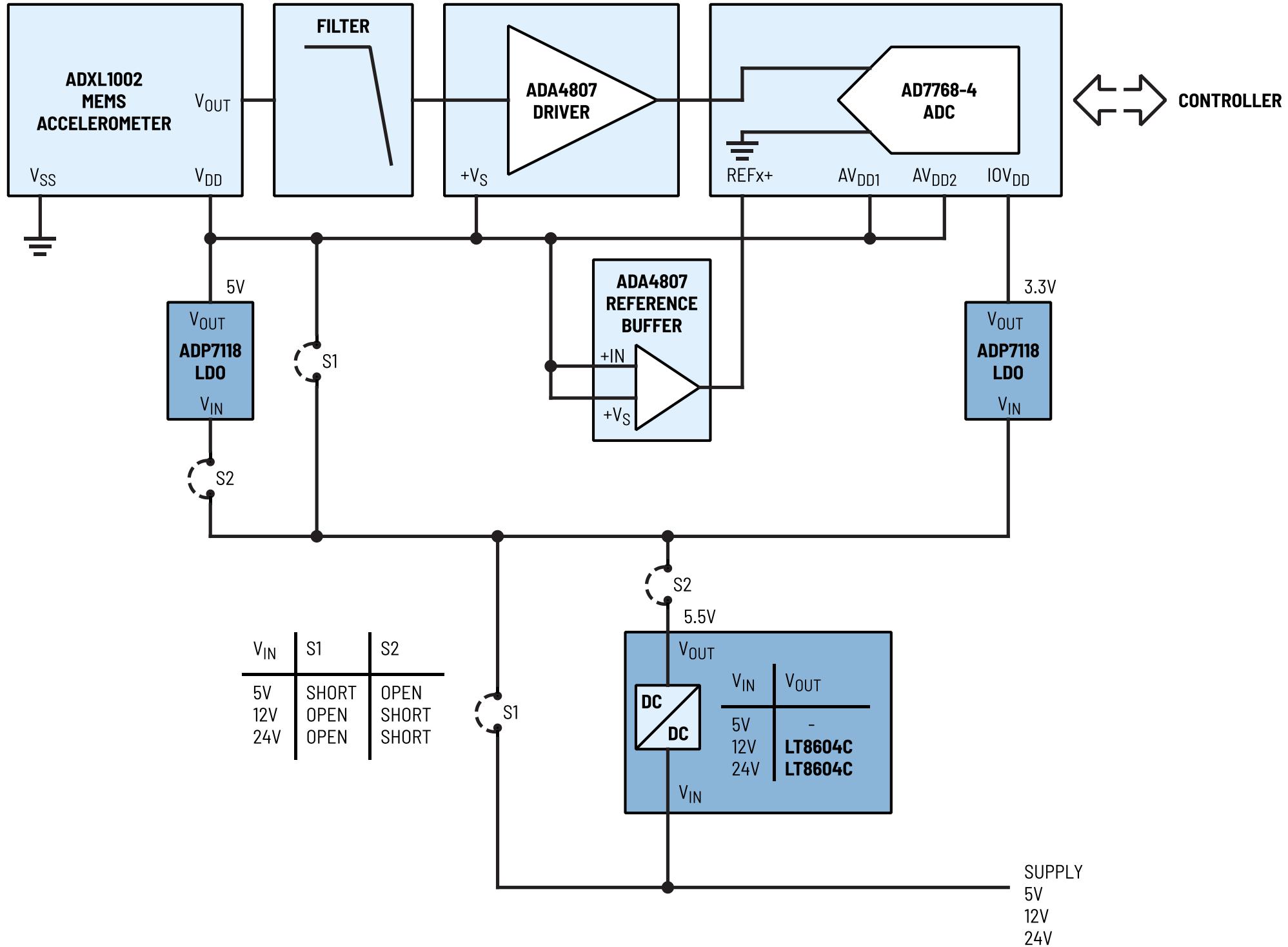
[Power Requirements](#)

Edge Node Vibration Sensing

3-Axis Sensing

Non-isolated

Multichannel



Precision Medium Bandwidth

Edge Node Vibration Sensing

3-Axis Sensing

Non-isolated

Multichannel

PART #	DESCRIPTION
LT8604	High Efficiency 42V/120mA Synchronous Buck
ADP7118	20V, 200mA, Low Noise, CMOS LDO Linear Regulator

Non-isolated

Multichannel

POWER REQUIREMENTS

PARAMETER	STAGES	MEMS Accelerometer	ADC Driver	ADC			Ref. Buffer
	Part #	ADXL1002	ADA4807-2	AD7768-4			ADA4807-1
	Pin	V_{DD}	$+V_S$	AV_{DD1}	AV_{DD2}	IOV_{DD}	$+V_S$
Supply Voltage	V	5	5	5	5	3.3	5
Supply Current	mA	1.15	6 (per amp)	33	20	47	6
PSRR	dB	-	73 (1MHz)	98 (1MHz)	98 (1MHz)	98 (1MHz)	73 (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.