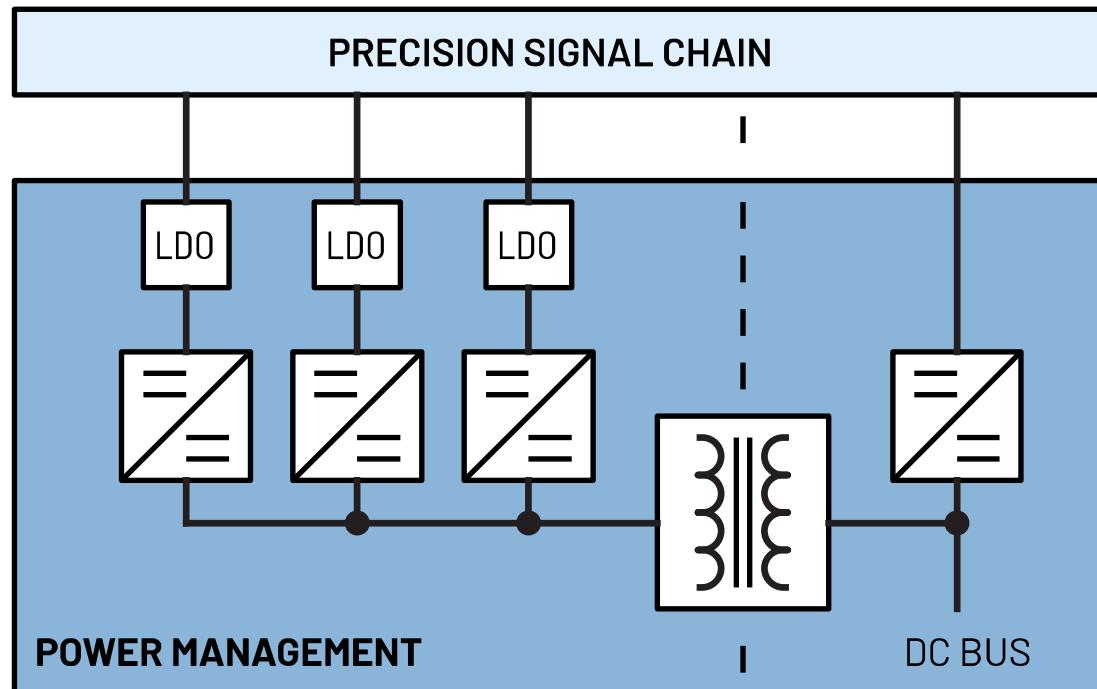


# POWER SOLUTIONS FOR PRECISION TECHNOLOGY SIGNAL CHAINS

PRECISION MEDIUM BANDWIDTH  
Edge Node Vibration Sensing  
Enhanced Digital Functions

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
<u>1-Channel</u>

POWER RE	
PARAMETER	
Supply Voltage	
Supply Current	
PSRR	

**APPENDIX**

[Parts Guide](#)

**USER GUIDE**

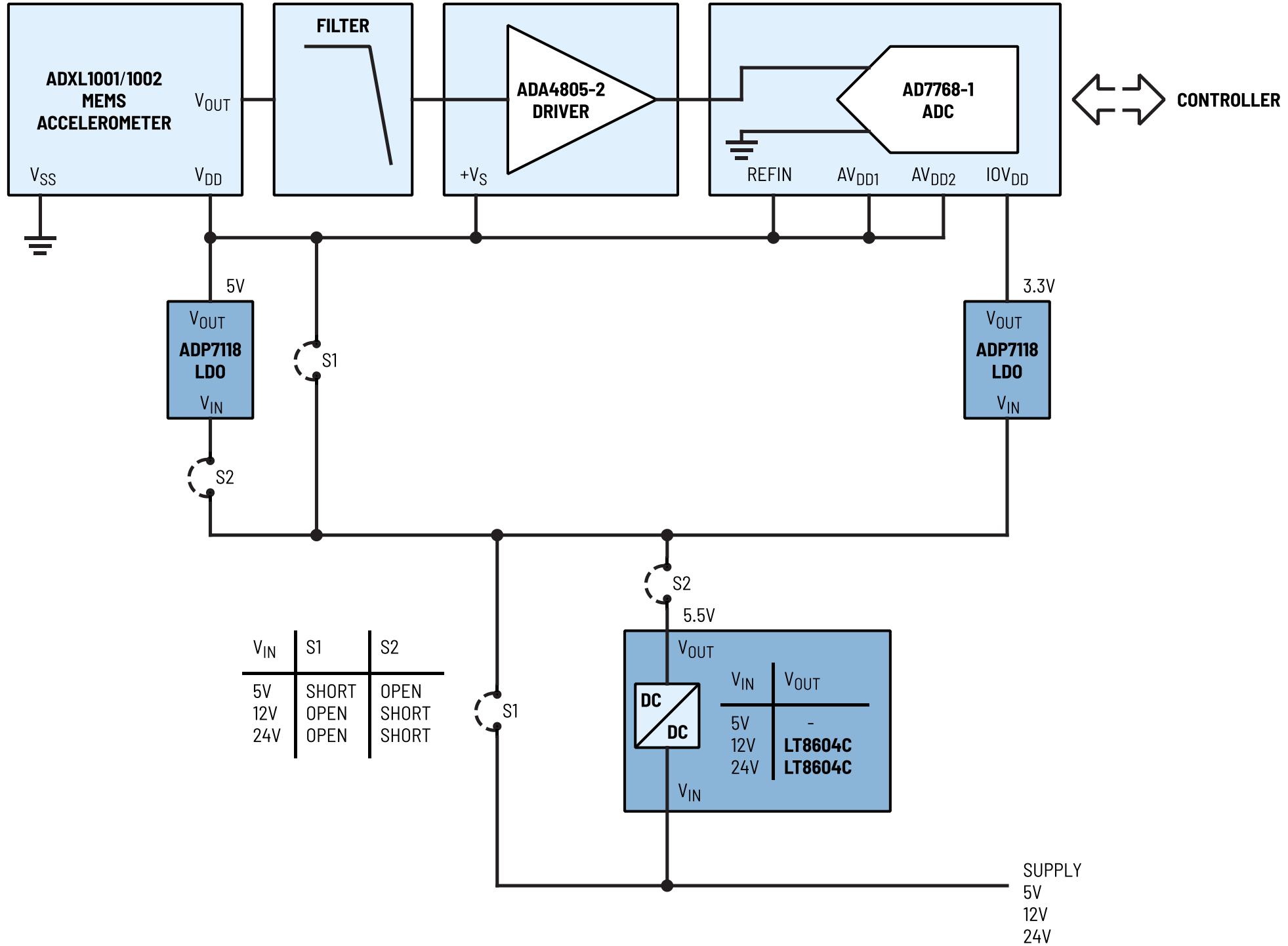
[Power Requirements](#)

Edge Node Vibration Sensing

Enhanced Digital Functions

Non-isolated

Single-channel



Precision Medium Bandwidth

Edge Node Vibration Sensing

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

Non-isolated

Single-channel

# POWER REQUIREMENTS

PARAMETER	STAGES	MEMS Accelerometer	ADC Driver	ADC			Ref. Buffer
	Part #	<u>ADXL1001</u> <u>ADXL1002</u>	<u>ADA4805-2</u>	<u>AD7768-1</u>			-
	Pin	$V_{DD}$	$+V_S$	$AV_{DD1}$	$AV_{DD2}$	$IOV_{DD}$	-
Supply Voltage	V	5	5	5	5	3.3	-
Supply Current	mA	1.15	0.52 (per amp)	26	6	11.5	-
PSRR	dB	-	70 (1MHz)	110 (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.