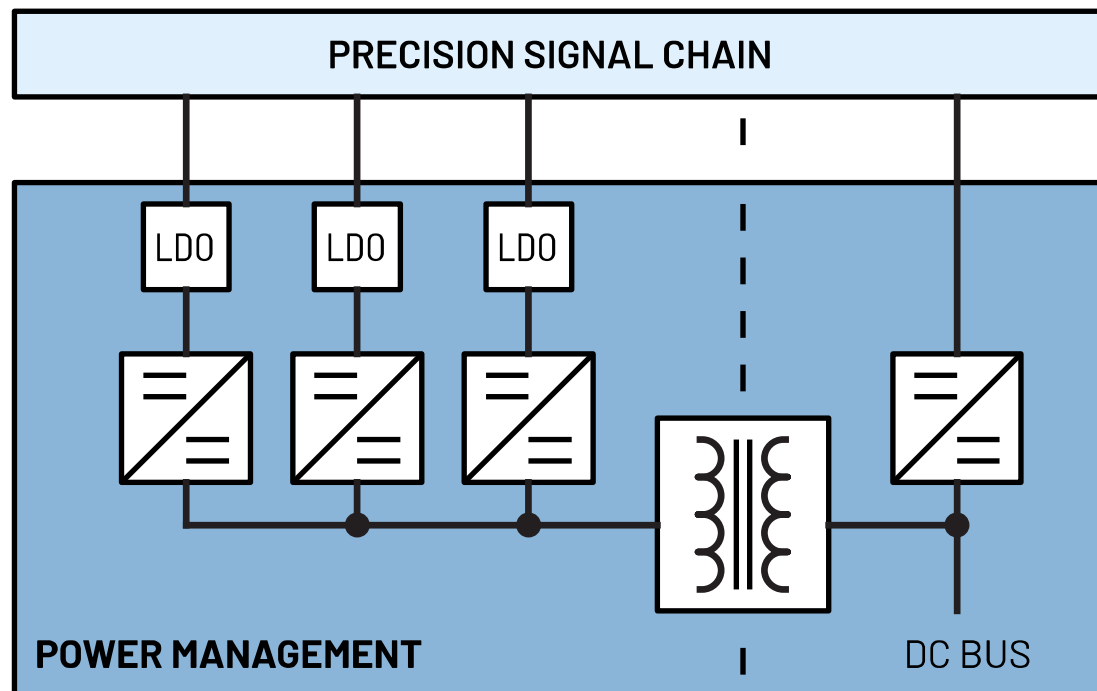


POWER SOLUTIONS FOR PRECISION TECHNOLOGY SIGNAL CHAINS

PRECISION MEDIUM BANDWIDTH Sonar Sensor Distributed

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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 x 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	

Precision Medium Bandwidth

Sonar
Sensor Distributed

Non-isolated
Single-channel

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

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Non-isolated
Single-channel

POWER REQUIREMENTS

PARAMETER	STAGES	Preamp	Precision Filter	ADC Driver	ADC			Reference
	Part #	ADA4625	ADA4841	ADA4945-1	AD7768-1			LTC6655LNC-4.096
	Pin	V+	+V _S	+V _S	AV _{DD1}	AV _{DD2}	IOV _{DD}	V _{IN}
Supply Voltage	V	5	5	5	5	5	1.8	5
Supply Current	mA	4.8 (per amp)	1.4 (per amp)	4.2	26	6	11.5	7.5
PSRR	dB	25 (1MHz)	48 (1MHz)	106 (1MHz)	117 (1MHz)	111 (1MHz)	119 (1MHz)	58 (100kHz)

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.