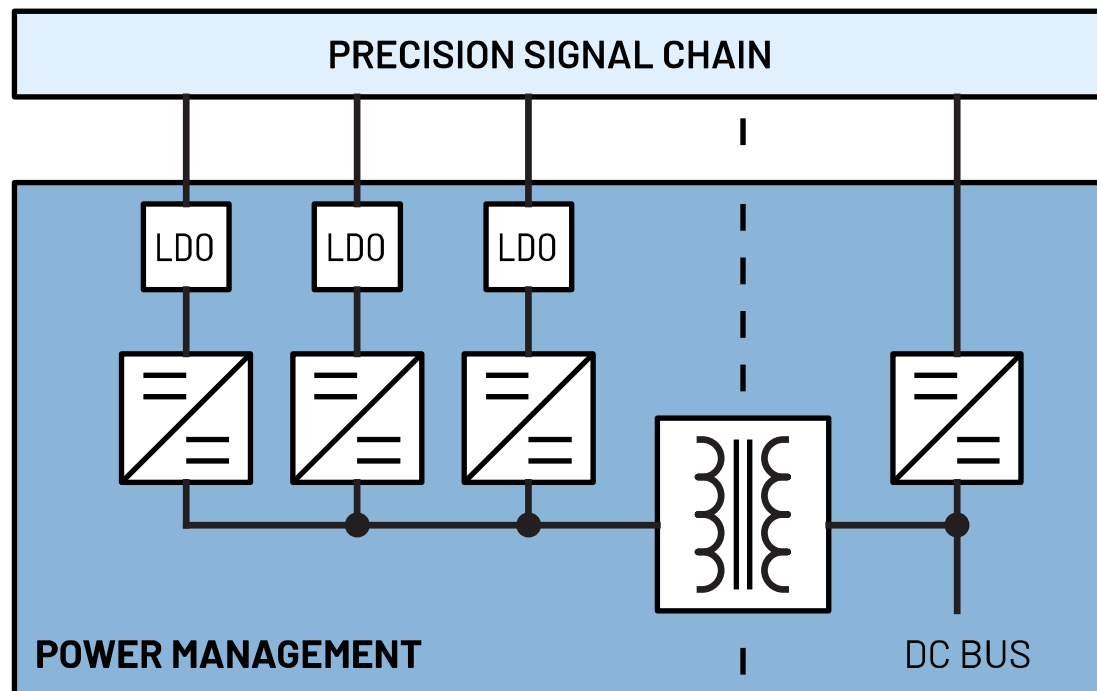


POWER SOLUTIONS FOR PRECISION TECHNOLOGY SIGNAL CHAINS

PRECISION NARROW BANDWIDTH
Sine Wave Voltage Generation
Density Optimized

Rev. 0 | Jan. 2022



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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.

The screenshot shows a navigation menu on the left with two items: 'Non-isolated' and '1-Channel'. The '1-Channel' item is highlighted with a blue arrow pointing to it from the text above. To the right is a table titled 'POWER RE' with a 'PARAMETER' column and three rows: 'Supply Voltage', 'Supply Current', and 'PSRR'.

Precision Narrow Bandwidth

APPENDIX

Parts Guide

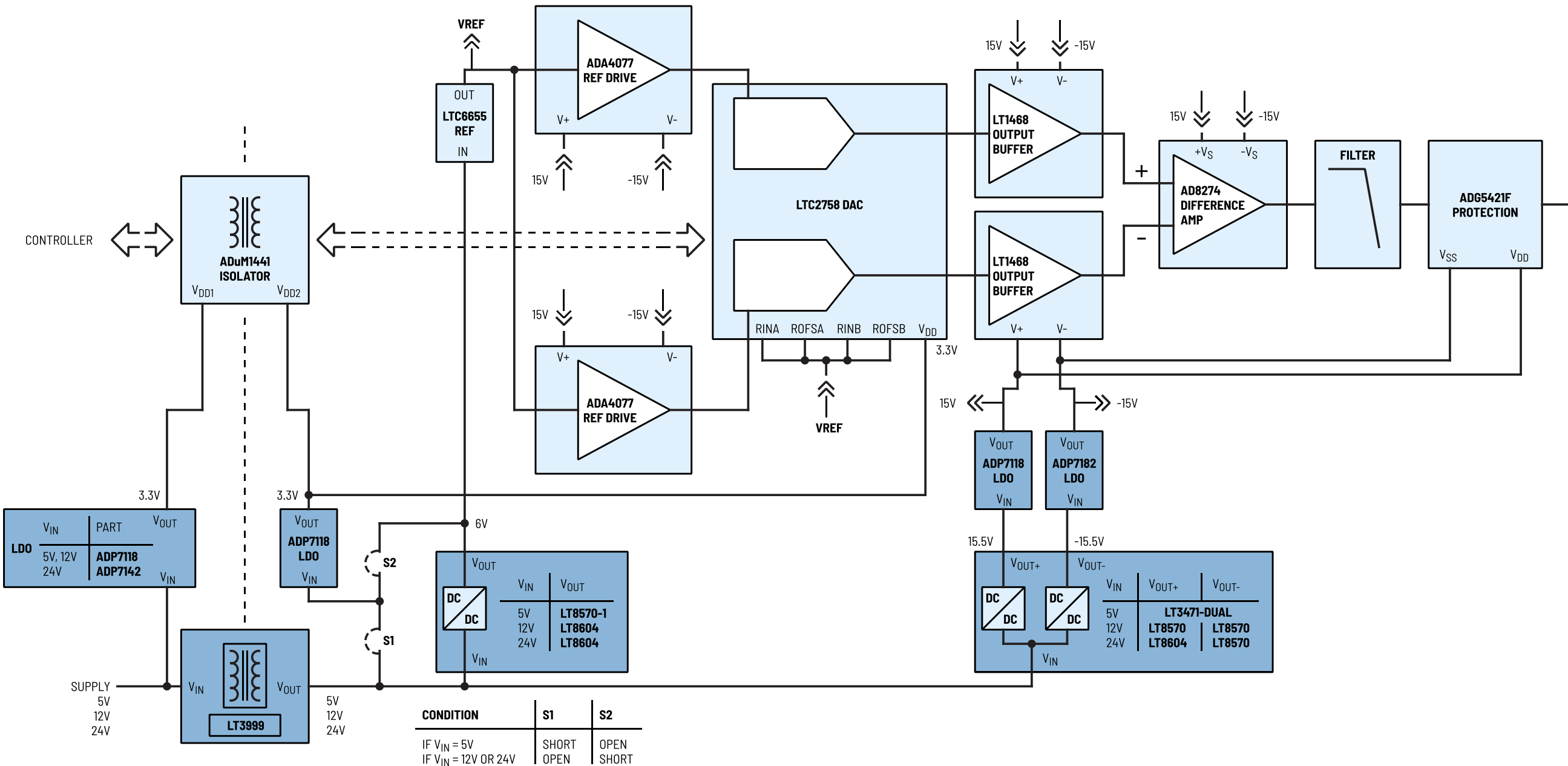
USER GUIDE

Power Requirements

Sine Wave Voltage Generation

Density Optimized

Isolated
1-Channel



Precision Narrow Bandwidth

Sine Wave Voltage Generation

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1-Channel

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</u>	Boost/SEPIC/Inverting DC/DC Converter with 65V Switch, Soft-Start and Sync.
<u>LT8570-1</u>	Boost/SEPIC/Inverting DC/DC Converter with 65V Switch, Soft-Start and Sync.
<u>LT3999</u>	Low Noise, 1A, 1MHz Push-Pull DC/DC Driver with Duty Cycle Control
<u>ADP7118</u>	20V, 200mA, Low Noise, CMOS LDO Linear Regulator
<u>ADP7142</u>	40V, 200 mA, Low Noise, CMOS LDO Linear Regulator
<u>ADP7182</u>	-28V, -200mA, Low Noise, Linear Regulator

Isolated

1-Channel

POWER REQUIREMENTS

PARAMETER	STAGES	Ref.	Buffer		Isolation		DAC	Amp		Difference Amp		Protection	
	Part #	LTC6655	ADA4077		ADuM1441		LTC2758	LT1468		AD8274		ADG5421F	
	Pin	IN	V+	V-	V _{DD1}	V _{DD2}	V _{DD}	V+	V-	V+	V-	V _{DD}	V _{SS}
Supply Voltage	V	5	15	-15	3.3	3.3	3.3	15	-15	15	-15	15	-15
Supply Current	mA	1.8	0.65	-0.65	0.9	-0.75	10	5.2	-5.2	5.2	-5.2	0.205	-0.115
PSRR	dB	40 (10kHz)	12 (1MHz)	24 (1MHz)	-		-	46 (1MHz)	33 (1MHz)	48 (1MHz)	19 (1MHz)	90 (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 power dissipation if needed.

Note 4: The actual supply current requirement shall be multiplied depending on the number of channels on the signal chain.