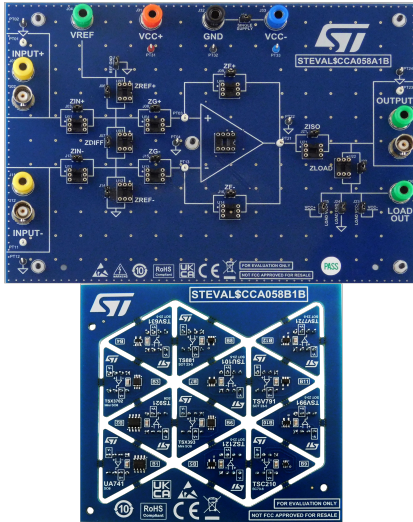


Training kit for operational amplifiers and comparators



Features

- Schematics and applications based on operational amplifiers and comparators:
 - Follower, inverter, noninverter
 - Filters
 - Low-side current sensing
 - Photodiode transimpedance amplification
- Low cost to high-performance low-voltage operational amplifiers:
 - Rail-to-rail
 - High bandwidth
 - Low offset
 - High output current
 - Low-power

Description

The **STEVAL-CCA058V1** training kit is intended for hands-on training on operational amplifiers and comparator-based analog circuits.

You can use the kit in an academic context for students' training, as well as for professionals' training: junior analog engineers, distributors, and customers. It is also useful for a fast evaluation and prototyping of low frequency op amp-based applications.

The **STEVAL-CCA058V1** consists of a configurable board, which features the most widely used op-amp-based schematics and applications, and ST op-amps mounted on DIP adaptors.

It should be used with a set of through passive components (resistors and capacitors), and a set of lab instruments (power supply, function generator, multimeter, and oscilloscope).

The kit allows the trainee to experiment the most common op-amp-based schematics. It also allows learning how to choose the most suited op-amp for a custom application. You can find the detailed documentation on guided experiments at www.st.com.

Product summary	
Training kit for operational amplifiers	STEVAL-CCA058V1
Amplifiers	TS921IDT/ TSC210ICT/ TSU101ILT/ TSV631ILT/ TSV7721ILT/ TSV791ILT/ TSV991ILT/ TSZ121ILT/ UA741CDT
Comparators	TS881ILT/ TSX3702IST/ TSX393IST
Applications	Process and Environment Monitoring

Schematic diagrams

Figure 1. STEVAL-CCA058A1 main board circuit schematic

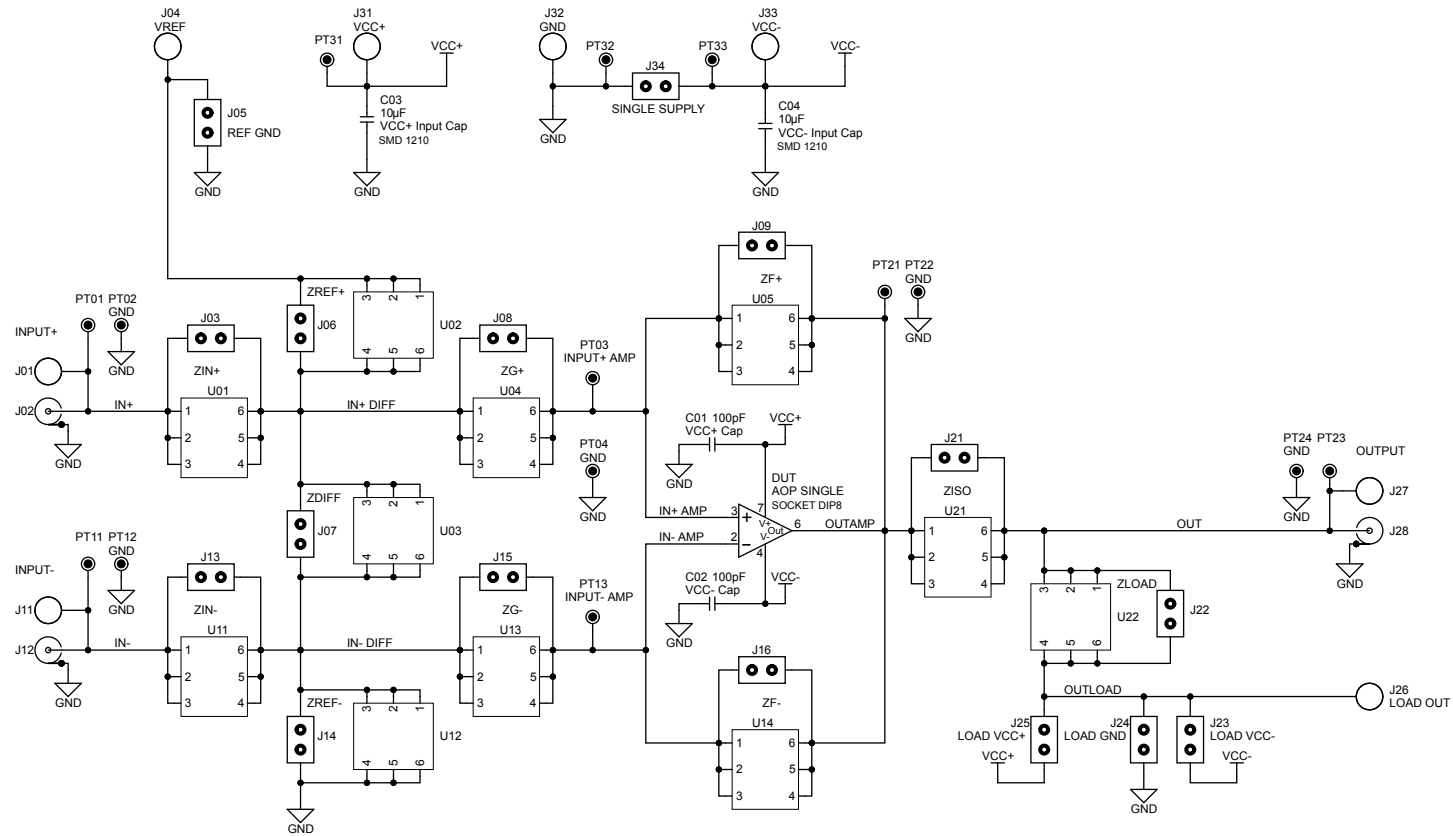
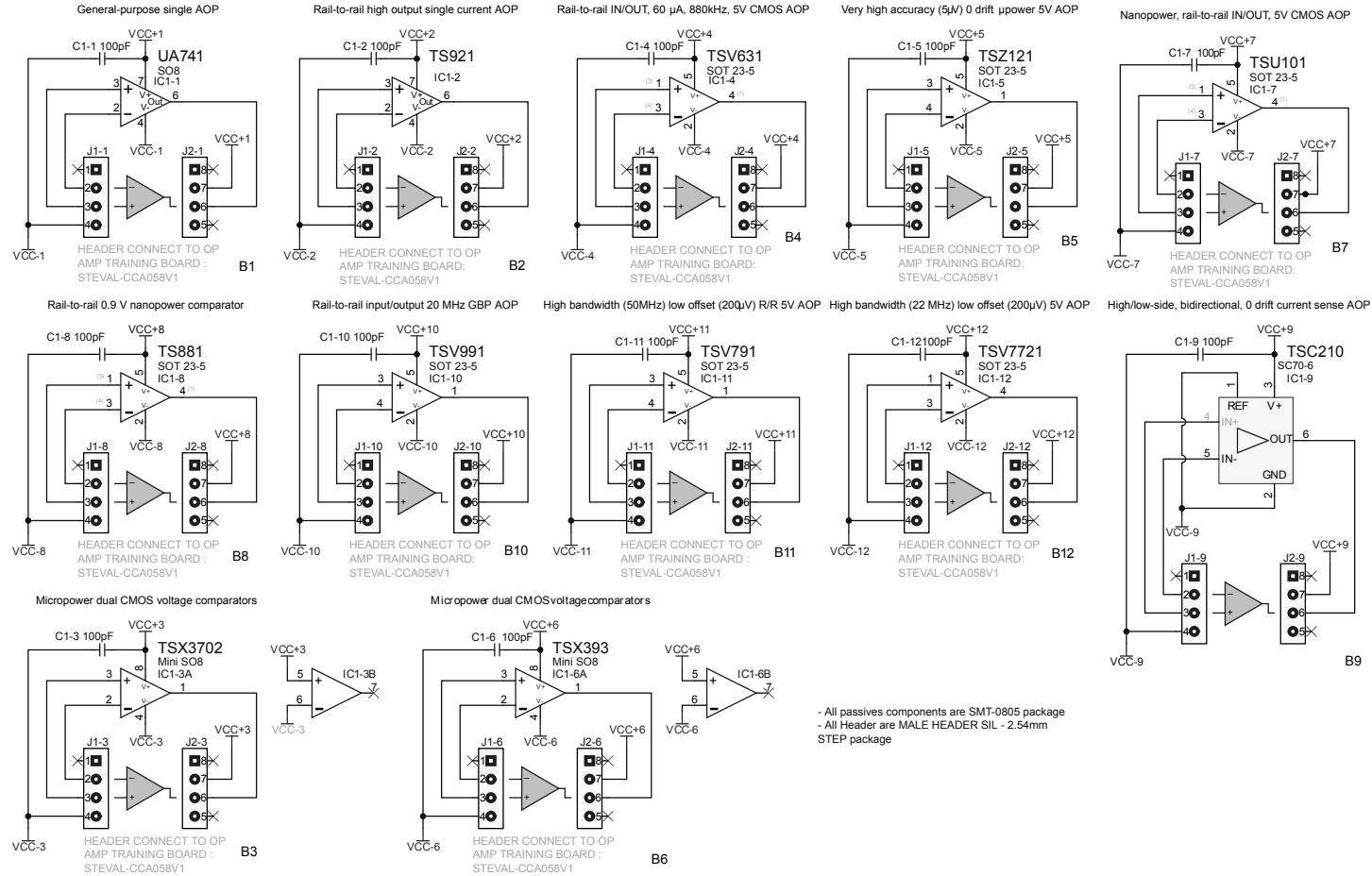


Figure 2. STEVAL-CCA058B1 op-amp adapter board circuit schematic



2 Kit versions

Table 1. STEVAL-CCA058V1 kit versions

Finished good	Schematic diagrams	Bill of materials
STEVAL\$CCA058V1A ⁽¹⁾	STEVAL\$CCA058V1A schematic diagrams	STEVAL\$CCA058V1A bill of materials
STEVAL\$CCA058V1B ⁽²⁾	STEVAL\$CCA058V1B schematic diagrams	STEVAL\$CCA058V1B bill of materials

1. This code identifies the STEVAL-CCA058V1 evaluation kit first version. The kit consist of the STEVAL-CCA058A1 main board, whose version is identified by the code STEVAL\$CCA058A1A on the silkscreen, and the STEVAL-CCA058B1 op-amp adapter board, whose version is identified by the code STEVAL\$CCA058B1A on the silkscreen.
2. This code identifies the STEVAL-CCA058V1 evaluation kit second version. The kit consist of the STEVAL-CCA058A1 main board, whose version is identified by the code STEVAL\$CCA058A1B on the silkscreen, and the STEVAL-CCA058B1 op-amp adapter board, whose version is identified by the code STEVAL\$CCA058B1B on the silkscreen.

Revision history

Table 2. Document revision history

Date	Revision	Changes
01-Mar-2022	1	Initial release.
24-Aug-2023	2	Updated cover image and Section 2 Kit versions .

IMPORTANT NOTICE – READ CAREFULLY

STMicroelectronics NV and its subsidiaries ("ST") reserve the right to make changes, corrections, enhancements, modifications, and improvements to ST products and/or to this document at any time without notice. Purchasers should obtain the latest relevant information on ST products before placing orders. ST products are sold pursuant to ST's terms and conditions of sale in place at the time of order acknowledgment.

Purchasers are solely responsible for the choice, selection, and use of ST products and ST assumes no liability for application assistance or the design of purchasers' products.

No license, express or implied, to any intellectual property right is granted by ST herein.

Resale of ST products with provisions different from the information set forth herein shall void any warranty granted by ST for such product.

ST and the ST logo are trademarks of ST. For additional information about ST trademarks, refer to www.st.com/trademarks. All other product or service names are the property of their respective owners.

Information in this document supersedes and replaces information previously supplied in any prior versions of this document.

© 2023 STMicroelectronics – All rights reserved