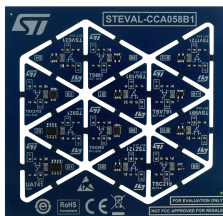
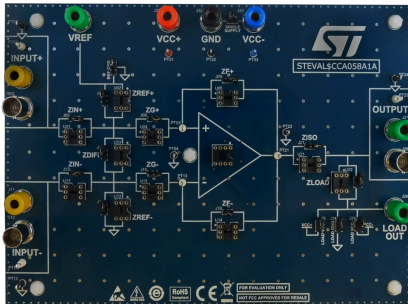


Training kit for operational amplifiers and comparators



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/ TSU1011LT/ TSV6311LT/ TSV77211LT/ TSV7911LT/ TSV9911LT/ TSZ1211LT/ UA741CDT |
| Comparators | TS8811LT/ TSX37021ST/ TSX3931ST |
| Applications | Process and Environment Monitoring |

1 Schematic diagrams

Figure 1. STEVAL-CCA058A1 main board circuit schematic

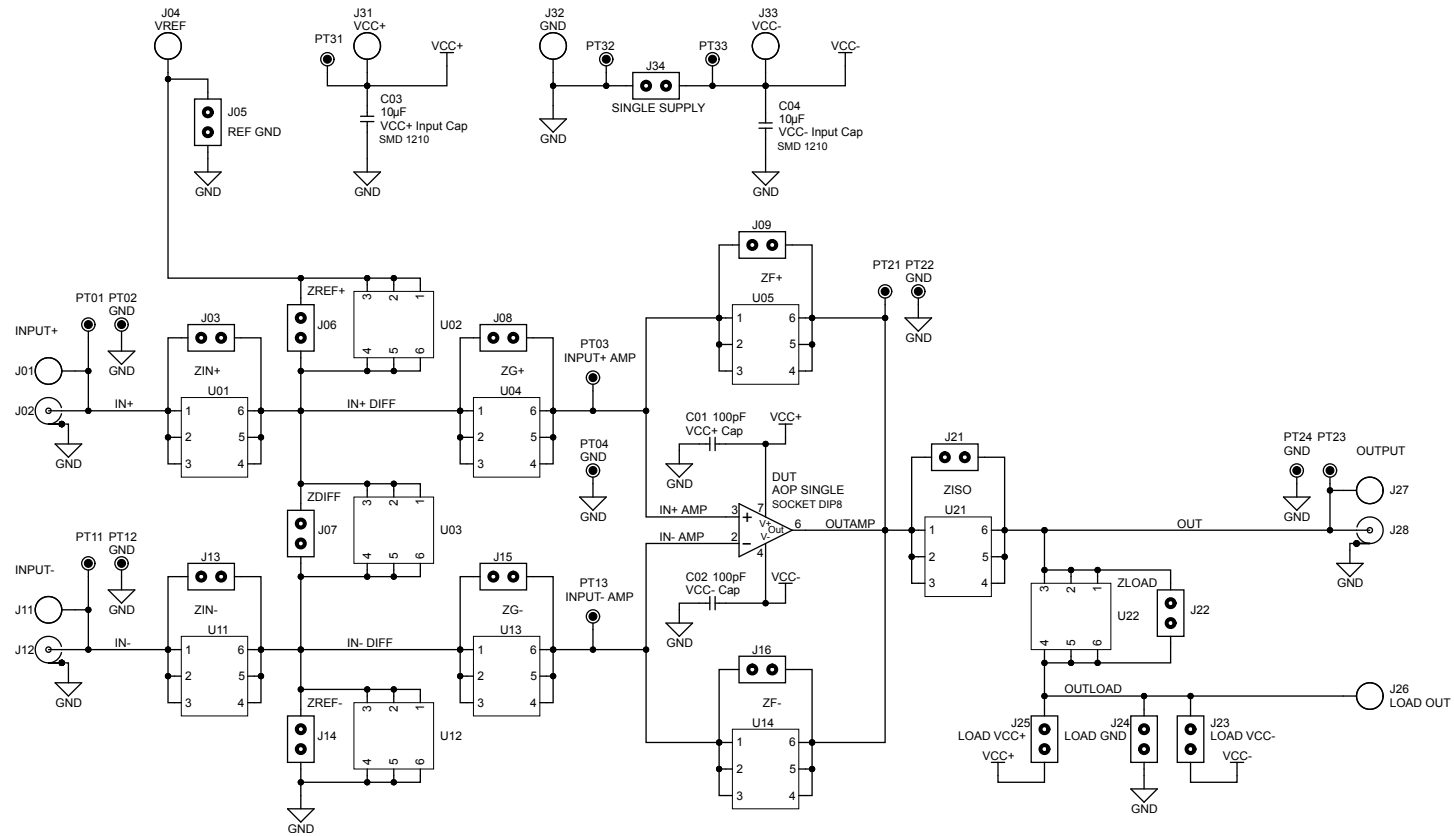
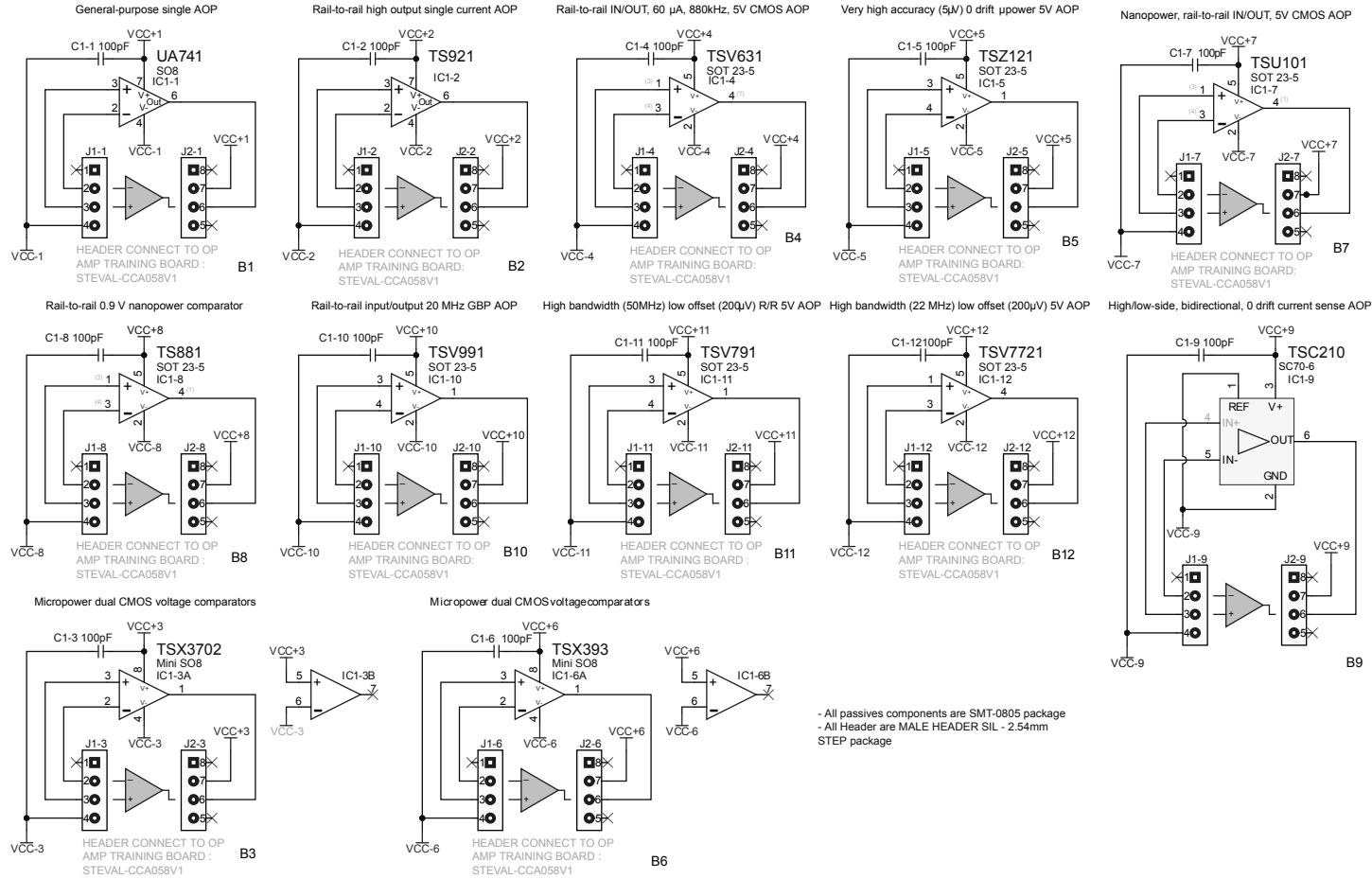


Figure 2. STEVAL-CCA058A1 op-amp adapter board circuit schematic



- All passives components are SMT-0805 package
 - All Header are MALE HEADER SIL - 2.54mm STEP package



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 |

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, and the STEVAL-CCA058B1 op-amp adapter board, whose version is identified by the code STEVAL\$CCA058B1A.

Revision history

Table 2. Document revision history

| Date | Revision | Changes |
|-------------|----------|------------------|
| 01-Mar-2022 | 1 | Initial release. |

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