Evaluation kit for high voltage bidirectional current sense amplifier

Features

- Wide common mode voltage range: -20 to 70 V
- Offset voltage: ±200 µV max.
- 2.7 to 5.5 V supply voltage
- Quiescent current: 20 µA in Shutdown mode
- Temperature range: -40 to 125°C
- SO8 and MiniSO8 package
- RoHS compliant

Description

The STEVAL-AETKT1V2 evaluation kit represents a bidirectional current sense amplifier with high side or low side sense resistor. The kit consists of a main board and individual daughter boards for the TSC2011, TSC2010 and TSC2012 high voltage, bidirectional, current sense amplifier ICs, which provide a a fixed gain of 60, 20 or 100, respectively.

The thin film resistor on the TSC201x devices ensure extremely precise gain and very high common-mode rejection ratio (CMRR) performance, even in high frequency ranges. They accurately measure current by amplifying the voltage (V_{SENSE}) across a shunt resistor connected to the input. Moreover, the ability to fix the output common mode voltage means that the device can be either used as unidirectional or bidirectional current sensing amplifier.

Product summary	
Evaluation kit for high voltage bidirectional current sense amplifier	STEVAL-AETKT1V2
High voltage, precision, bidirectional current sense amplifier	TSC2010 TSC2011 TSC2012
Applications	Automotive Motor Control Electro-Mobility Factory Automation Industrial Power and Tools

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For further information contact your local STMicroelectronics sales office.

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1   Schematic diagrams

Figure 1. STEVAL-AETKT1V2 main board (STEVAL-AET001V1B) schematic diagram

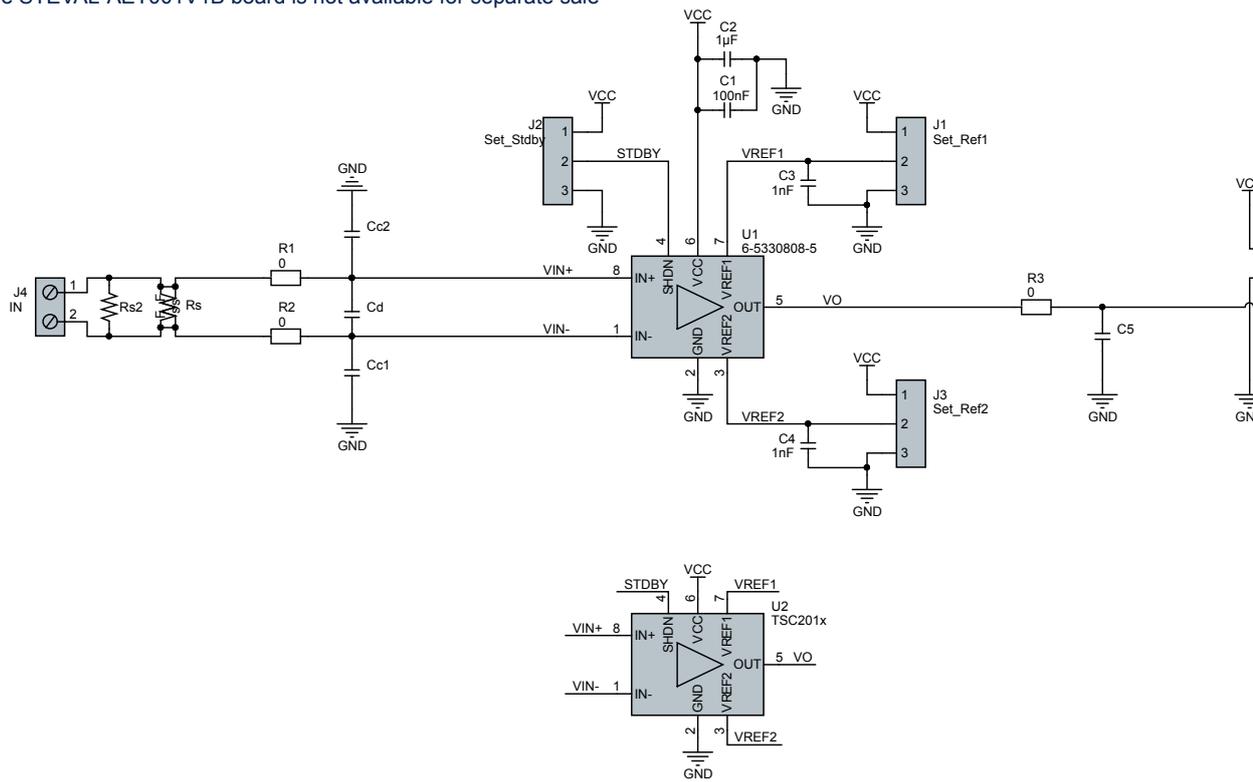The STEVAL-AET001V1B board is not available for separate sale

Figure 2. STEVAL-AETKT1V2 daughter board (STEVAL-AET002V1B) schematic diagram

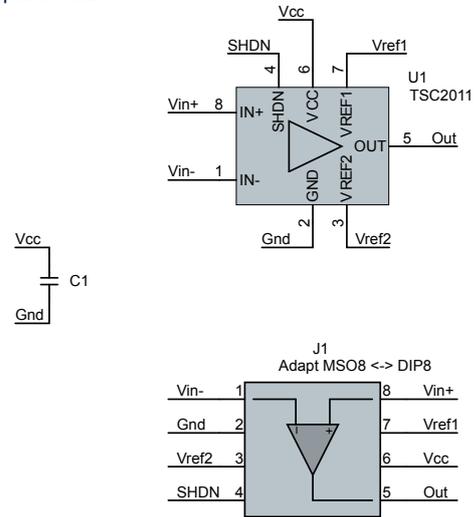The STEVAL-AET002V1B board is not available for separate sale

Figure 3. STEVAL-AETKT1V2 daughter board (STEVAL-AET003V1B) schematic diagram

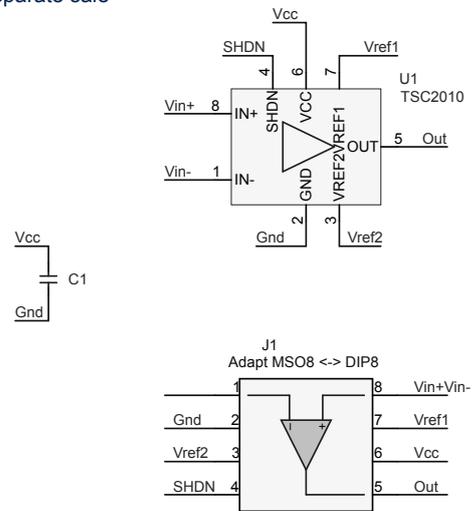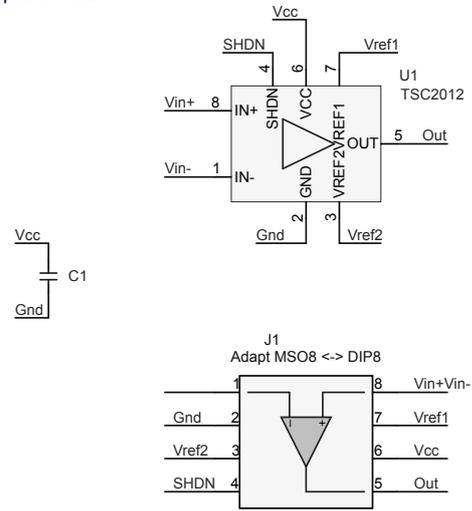The STEVAL-AET003V1B board is not available for separate sale

Figure 4. STEVAL-AETKT1V2 daughter board (STEVAL-AET004V1B) schematic diagram

The STEVAL-AET004V1B board is not available for separate sale

Revision history

Table 1. Document revision history

Date	Version	Changes
02-Oct-2020	1	Initial release.
09-Dec-2020	2	Updated cover page image.

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