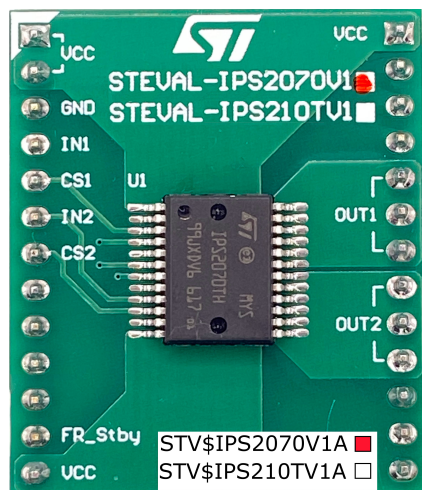


Industrial chip board based on IPS2070TH



Features

The **STEVAL-IPS2070V1** is intended to be used in industrial I/O modules and PLC (programmable logic controller) applications, especially in those where industrial safety worths.

- Based on the **IPS2070TH** dual channel high-side switch, which features:
 - $R_{ON(MAX)}$ (@ $T_J = 25\text{ }^{\circ}\text{C}$) = 35 m Ω
 - Very low standby current
 - 3.3 V CMOS compatible input
 - Optimized electromagnetic emission
 - Very low electromagnetic susceptibility
 - Proportional load current sense
 - Very low current sense leakage
 - High current sense precision for wide range currents
 - Off-state open-load detection
 - Output short to VCC detection
 - Overload and short to ground latch-off
 - Thermal shutdown latch-off
 - Undervoltage shutdown
 - Overvoltage clamp
 - Load current limitation
 - Fault reset standby pin (FR_STBY)
 - Self limiting of fast thermal transients
 - Protection against loss of ground and loss of VCC
 - Designed to drive DC-13 loads according to EN 60947-5-1
 - Designed to meet IEC 61131-2, IEC 61000-4-2, IEC 61000-4-4, IEC 61000-4-5
 - PowerSSO-24 package
- CE certified:
 - EN IEC 61000-6-2:2019
 - EN IEC 61000-6-4:2019
 - EN 55032:2015 + A1:2020 + A11:2020
 - EN 55035:2017 + A11:2020
- ECOPACK®: lead free and RoHS compliant

Product summary	
Industrial chip board based on IPS2070TH	STEVAL-IPS2070V1
Dual Channel High Side Switch with overload protection	IPS2070THK
Applications	• Programmable Logic Controllers • Industrial PC peripheral input/output • Numerical control machines

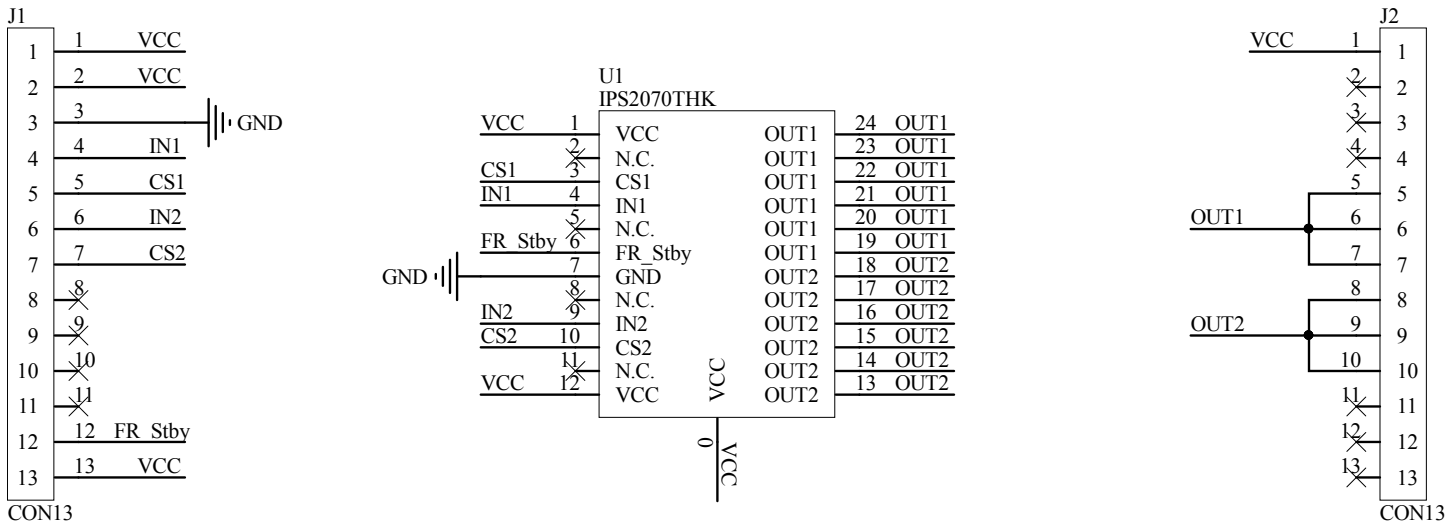
Description

The **STEVAL-IPS2070V1** industrial chip board provides a powerful and flexible environment for the evaluation of the driving and diagnostic capabilities of the **IPS2070TH** single channel high-side switch, which features active current limitation combined with thermal shutdown and automatic restart.

The **STEVAL-IPS2070V1** interfaces through 2 x 13 pin strips with the **X-NUCLEO-DOHS0A1** expansion board for **STM32 Nucleo**.

The expansion board can be connected to either a **NUCLEO-F401RE** or a **NUCLEO-G431RB** development board through the Arduino® R3 connectors.

Figure 1. STEVAL-IPS2070V1 circuit schematic



2 Board versions

Table 1. STEVAL-IPS2070V1 versions

Finished good	Schematic diagrams	Bill of materials
STV\$IPS2070V1A ⁽¹⁾	STV\$IPS2070V1A schematic diagrams	STV\$IPS2070V1A bill of materials

1. This code identifies the STEVAL-IPS2070V1 evaluation board first version.

Revision history

Table 2. Document revision history

Date	Version	Changes
13-Oct-2026	1	Initial release.

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