

Overview

The XJTAG Surge Protection Board provides safeguards against excessive inrush current, over-current and over-voltage for the Device Under Test (DUT). Its small form factor means that the XJTAG Surge Protection Board can be easily mounted inside a test fixture, and installed in series with the DUT power supply.

Over-current protection

The XJTAG Surge Protection Board prevents both static over-current situations, such as power/ground shorts on a DUT, and large transient currents that can occur as power is applied.

When switching DUT power with relays or similar “instant on” devices it is easy to cause issues such as ‘ground bounce’ which can damage the DUT or test system.

When power is applied to the DUT through the Surge Protection Board it monitors the input voltage and load current. If these exceed the configured limits for a defined time period (see User Guide), the output power will be disabled and a fault condition will be indicated by the red LED.

The current limit is easily user adjustable to one of four levels, 1 A, 2 A, 3 A and 4 A, using the switch on the board.

Output control modes

XJTAG Surge Protection Board can be used in one of two output modes: Always-on or Switched. The mode of operation is simply controlled by jumper selection.

In Always-on mode, power is applied to a DUT when more than 4 V is applied to the input connector.

In Switched mode, power output is controlled by a pin on the input connector; this can be controlled by an XJLink2 or other external equipment.

Over-voltage protection

The XJTAG Surge Protection Board also monitors and limits the input voltage. As with the current limit, the voltage limit is configured using a switch on the board.

There are four limits that can be selected:

- 6 V limit – to protect 5 V supplies
- 14 V limit – to protect 12 V supplies
- 30 V limit – to protect 24 V supplies
- Custom – any value from 6-32 V

The custom limit is configured by fitting a resistor to the board. The value of this resistor can be calculated using the formula found in the User Guide.

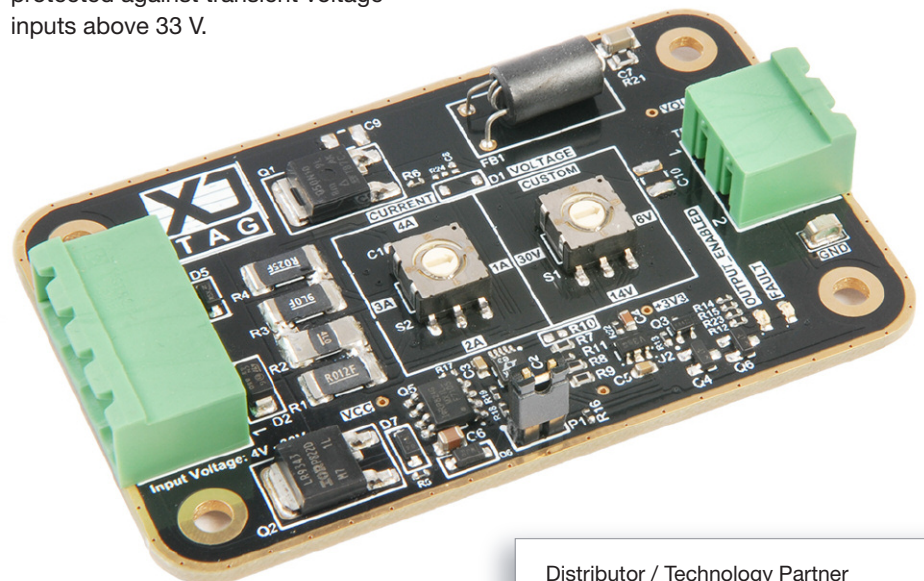
The Surge Protection Board is itself protected against transient voltage inputs above 33 V.

Key Benefits

- Provides ‘soft start’ to avoid excessive inrush current during power up
- Over-current protection
- Over-voltage protection
- Power switching capability – replaces existing power switch circuitry

Features

- Switch-selectable current limits of 1 A, 2 A, 3 A or 4 A
- Switch-selectable voltage limits of 6 V, 14 V or 30 V
- Custom voltage limit – configurable by fitting a single resistor
- Operating voltage range of +4 V to +30 V
- Two operation modes: output always on or controlled by a connector pin
- LED indicators for Output Enabled and Fault conditions
- Compatible with all other test hardware from XJTAG



Distributor / Technology Partner

Order code

Surge Protection Board: XJTAG-SPB-0010
Contact your local distributor for prices.