



## Load Switch with OVP and Reverse Polarity Protection

### EVAL Kit Physical Contents

Item #	Description	Quantity
1	KTS1693 EVAL Kit fully assembled PCB	1
2	XT30-to-Banana power cables, red/black pair	2 pairs
3	Anti-static bag	1
4	KTS1693 EVAL Kit Quick Start Guide -- printed 1-page (A4 or US Letter)	1
5	EVAL Kit box	1

### QR Links for Documents

IC Datasheet	EVAL Kit Landing Page
 <a href="https://www.kinet-ic.com/kts1693/">https://www.kinet-ic.com/kts1693/</a>	 <a href="https://www.kinet-ic.com/kts1693evb-mmev01/">https://www.kinet-ic.com/kts1693evb-mmev01/</a>

### User-Supplied Equipment

1. Bench Power Supply for VIN – 10V/30V and 0.5A/6A, as needed for the intended application. For testing over-voltage protection and withstand voltage, a 28V adjustable bench power supply is preferred.
2. Digital Multimeter – one or more, used to measure input/output voltages and currents.

### Quick Start Procedures

1. Set Jumpers to default:  $\overline{EN} = \text{GND}$
2. Connect one pair of XT30-to-Banana power cables to the XT30 connector at VIN and GND (left edge of EVAL Kit).
3. Before connecting the EVAL Kit to the VIN bench supply, turn on the supply and adjust the voltage as close to 0V as possible. Then turn off the supply. While off, connect the banana ends of the XT30-to-Banana power cables to the VIN bench supply.
4. Turn on the VIN bench supply and very slowly ramp its voltage to an appropriate voltage, such as 5V. While ramping VIN slowly, use the bench supply's output current indication (or a digital multimeter) to monitor the VIN current. If the current becomes high, reduce the VIN voltage quickly to prevent damage. Then inspect the setup for any wiring errors.
5. With valid VIN voltage such as 5V, use a digital multimeter to check the output voltage between the KVOOUT and GND terminals on the EVAL Kit. It should be the same as the input voltage.
6. Use a digital multimeter to check the no-load supply current at VIN. Consult the KTS1693 datasheet for the expected current range at the VIN voltage condition in use. For conditions of VIN = 5V,  $\overline{EN} = \text{GND}$ , and no-load, it should be close to 160 $\mu\text{A}$ .