Kinetic Technologies KTS1640 OVP Switch with Single Input Dual Output Switches User Guide

Load Switch with OVP and Reverse Polarity Protection
EVAL Kit Quick Start Guide
KTS1640

Contents

EVAL Kit Physical Contents

Item #	Description	Quantity
1	KTS1640 EVAL Kit fully assembled PCB	1
2	XT30-to-Banana power cables, red/black pair	2 pairs
3	Anti-static bag	1
4	KTS1640 EVAL Kit Quick Start Guide — printed 1-page (A4 or US Letter)	1
5	EVAL Kit box	1

QR Links for Documents

IC Landing Page	EVAL Kit Landing Page
https://www.kinet-ic.com/KTS1640/	https://www.kinet-ic.com/kts1640edv-mmev01/

User-Supplied Equipment

1. Bench Power Supply for VIN – 14V/20V and 0.5A/5A, as needed for the intended application. For testing over-voltage protection and withstand voltage, a 40V adjustable bench power supply is preferred.
2. Digital Multimeter – used to measure input/output voltages and currents.

Quick Start Procedures

1. Set Jumpers to default: $\overline{EN}$ = GND
2. Connect one pair of XT30-to-Banana power cables to the XT30 connector at VIN and GND (right 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 14V.
   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, use a digital multimeter to check the output voltage between the KVOUT and GND terminals on the EVAL Kit. It should be nearly the same as the input voltage.
6. Use a digital multimeter to check the no-load supply current at VIN. Consult the KTS1640 datasheet for the expected current range at the VIN voltage condition in use. For conditions of VIN = 14.0V, $\overline{EN}$ = GND, and no-load, it should be close to 145µA.

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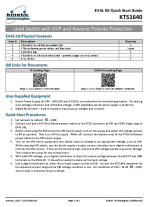
Documents / Resources

	Kinetic Technologies KTS1640 OVP Switch with Single Input Dual Output Switches [pdf] User Guide KTS1640 OVP Switch with Single Input Dual Output Switches, KTS1640, OVP Switch with Single Input Dual Output Switches, Dual Output Switches

References

- Kinetic Technologies - Analog & Mixed-Signal Semiconductors
- KTS1640, KTS1641 - OVP Switch with Single Input, Dual Output Switches with 200V Surge Protection