



6.5A_{RMS} VBUS OVP Load Switch for 28V EPR Systems

EVAL Kit Physical Contents

Item #	Description	Quantity
1	KTS1897 (+ KTS1289) EVAL Kit fully assembled PCB	1
2	XT30-to-Banana power cables, red/black pair	2 pairs
3	Anti-static bag	1
4	KTS1897 (+ KTS1289) EVAL Kit Quick Start Guide -- printed 1-page (A4 or US Letter)	1
5	EVAL Kit box	1

Links for Documents

IC Landing Page	EVAL Kit Landing Page
https://www.kinet-ic.com/kts1897/	https://www.kinet-ic.com/kts1897beiad-mmev01
https://www.kinet-ic.com/kts1289/	https://www.kinet-ic.com/kts1289ecae-mmev01/

User-Supplied Equipment

1. Bench Power Supply for VBUS – 5V/9V/15V/20V/28V/32V and 0.5A/1.5A/3A/5A, as needed for the intended application. For testing over-voltage protection and withstand voltage, a 35V 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: EN = H (B/D-Version).
2. Connect one pair of XT30-to-Banana power cables to the XT30 connector at VBUS and GND (right edge of EVAL Kit).
3. Before connecting the EVAL Kit to the VBUS 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 VBUS bench supply.
4. Turn on the VBUS bench supply and very slowly ramp its voltage to an appropriate voltage, such as 5, 9, 12, 15, 20, 28V or 32V. While ramping VBUS slowly, use the bench supply's output current indication (or a digital multimeter) to monitor the VBUS current. If the current becomes high, reduce the VBUS voltage quickly to prevent damage. Then inspect the setup for any wiring errors.
5. With valid VBUS voltage, use a digital multimeter to check the output voltage between the KVSYS 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 "ideal diode" droop regulation voltage between the KVBUS and KVSYS terminals on the EVAL Kit. At no-load and light-load conditions, it should be close to 25mV.
7. Use a digital multimeter to check the no-load supply current at VBUS. Consult the KTS1897 datasheet for the expected current range at the VBUS voltage condition in use. For conditions of VBUS = 5.0V, EN = H, and no-load, it should be close to 240μA.