



3.7A_{RMS} VBUS Current-Source Protection Load Switch

EVAL Kit Physical Contents

Item #	Description	Quantity
1	KTS1690A EVAL fully assembled PCB	1
2	XT30-to-Banana power cables, red/black pair	2 pairs
3	Anti-static bag	1
4	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/KTS1690A/	 https://www.kinet-ic.com/kts1690aefab-mmev01/

Note: The full EVAL Kit Manual is available for download on the EVAL Kit Landing Page.

User-Supplied Equipment

Required Equipment

1. Bench Power Supply – 5.0V (or 5.1V) from 1A up to 4A capable, as needed for the intended application.
2. Digital Multimeters – one or more, used to measure input/output voltages and currents.

Quick Start Procedures

1. Set Jumpers to default: FON = L, EN = H, VIO = IN
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 5.0V or 5.1V. 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 KVOOUT 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 KVIN and KVOOUT terminals on the EVAL Kit. At no-load and light-load conditions, it should be close to 60mV or slightly less.
7. Use a digital multimeter to check the no-load supply current at VIN. Consult the KTS1690A datasheet for the expected current range at the VIN voltage condition in use. For conditions of VIN = 5.0V, FON = L, EN = H, and no-load, it should be close to 220µA.