



3.5V to 60V Input Boost/SEPIC/Flyback DC-DC Controller

EVAL Kit Physical Contents

Item #	Description	Quantity
1	KTC3500 Boost Configuration EVAL fully assembled PCB	1
2	Anti-static bag	1
3	Quick Start Guide, printed 1 page (A4 or US Letter)	1
4	EVAL Kit box	1

QR Links for Documents

IC Datasheet	EVAL Kit Landing Page
 https://www.kinet-ic.com/KTC3500/	 https://www.kinet-ic.com/KTC3500evac-mmev01/

User-Supplied Equipment

Required Equipment

1. Bench Power Supply for VIN – 7V/17V and 5A as needed for the intended application.
2. Digital Multimeter – used to measure input/output voltages and currents.
3. Load – either power resistors, an E-Load, or an actual system load.

Optional Equipment

1. Oscilloscope and Voltage Probes – for dynamic testing, measurements, and to observe input/output voltages and currents within waveforms.
2. Additional Digital Multimeters.

Quick Start Procedures

1. Before connecting the EVAL board to the VIN bench supply, set the supply to 0 Volts. Turn off the supply. While off, connect power cables to the VIN (CN1) and GND (CN3) on the EVAL board and connect to VIN+ and VIN- on the bench supply.
2. Turn on the VIN bench supply and very slowly ramp its voltage to an appropriate voltage. While ramping up VIN slowly, use the bench supply's output current indication (or a digital multimeter) to monitor the VIN current. Current will flow even though the part is not enabled. If the current becomes high, reduce the VIN voltage quickly to prevent damage. Then inspect the setup for any wiring errors.
3. With valid VIN voltage, use a digital multimeter to check the output voltage between VOUT and GND terminals on the EVAL Kit. It should be 24V.
4. EN is connected to VIN by default through R1 and R2 to enable the output. Connect EN to GND to disable.