

### USB Type-C Protector for CC and SBU Pins

#### EVAL Kit Physical Contents

Item #	Description	Quantity
1	KTU1121A EVAL fully assembled PCB	1
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

EVAL Kit Manual	IC Datasheet
 <a href="https://www.kinet-ic.com/ktu1121a/">https://www.kinet-ic.com/ktu1121a/</a>	 <a href="https://www.kinet-ic.com/ktu1121aeuaj-mmev01/">https://www.kinet-ic.com/ktu1121aeuaj-mmev01/</a>

#### User-Supplied Equipment

##### Required Equipment

1. Bench Power Supplies for VCC and  $V_{CC1}/V_{CC2}$  or  $V_{SBU1}/V_{SBU2}$ , 0 to 5.0V variable with a 1A or more capability, as needed for the intended application.
2. Digital Multimeters – one or more, used to measure input/output voltages and currents.

#### Quick Start Procedures

1. Before connecting the EVAL Kit board to the VCC bench supply, turn on the supply and adjust the voltage as close to 0V as possible. Then turn off or disable the supply output. While off, connect power supply test leads to the power supply output.
2. Connect the power supply positive test lead to the evaluation board VCC terminal and the negative or ground lead to the GND terminal.
3. Turn on the VCC bench supply and very slowly ramp the output voltage to an appropriate level for the intended system, typically between 3.0V and 5.0V. While ramping VCC slowly, use the bench supply's output current indication (or a digital multimeter) to monitor the VCC current. If the current becomes high, reduce the VCC voltage quickly to prevent damage, then inspect the setup for any wiring errors.
4. With a valid VCC voltage to enable the KTU1121A IC, use a digital multimeter to check the resistance between the SBU1 to SBU1S test pads or the SBU2 to SBU2S test pads. When powered, the resistance from SBU1 to SBU1S or SBU2 to SBU2S should be typically be  $3\Omega$  and less than  $6.3\Omega$ .
5. With the VCC power supply disabled or turned off, the SBU switches should be open or high impedance. Measured resistance between SBU1 to SBU1S or SBU2 to SBU2S should be greater than  $1M\Omega$ .
6. With a valid VCC voltage to enable the KTU1121A IC, use a digital multimeter to check the resistance between the CC1 to CC1S pins or the CC2 to CC2S pins. When powered, the resistance from CC1 to CC1S or CC2 to CC2S should be less than  $1\Omega$ .
7. With the VCC power supply disabled or turned off, the CC switches should be open or high impedance. Measured resistance between CC1 to CC1S or CC2 to CC2S should be greater than  $1M\Omega$ .