KTD2690

Single Flash LED Driver with Programmable 1.5A Current Source

EVAL Kit Physical Contents

Item #	Description	Quantity
1	KTD2690 CSP EVAL Kit fully assembled PCB	1
2	MCP2221A Board - General Purpose USB to GPIO ADC I2C - Stemma QT / Qwiic	1
3	Stemma QT / Qwiic JST SH 4-pin Cable - 100mm Long	1
4	Anti-static bag	1
5	KTD2690 CSP EVAL Kit Quick Start Guide -- printed 1-page (A4 or US Letter)	1
6	EVAL Kit box	1

QR Links for Documents

IC Datasheet	EVAL Kit Landing Page
https://www.kinet-ic.com/ktd2690/	https://www.kinet-ic.com/ktd2690eraa-mmev01/

User-Supplied Equipment

1. Bench Power Supply for VIN 5V and 3A, as needed for the intended application.
2. Digital Multimeter – one or more, used to measure input/output voltages and currents.

Quick Start Procedures

- Connect one pair of Banana-to-clip power cables to the test points at VIN and GND (left side of EVAL Kit).
- 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 Banana-to-clip power cables to the VIN bench supply.
- Turn on the VIN bench supply and very slowly ramp its voltage to an appropriate voltage of 3.6V. 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.
- Use a digital multimeter to check the Standby supply current at VIN. For conditions of VIN = 3.6V in Standby mode, it should be below 2μA.
- Connect the Stemma QT 4-wire cable (GND, SDA, SCL) to the KTD2690 evaluation board connector CN1.
- Connect the other end of the Stemma QT 4-wire cable to the MCP2221A USB to I2C interface board.
- Connect the MCP2221A board to a computer via the USB type-C cable.
- Connect the MCP2221A board output G0 to the KTD2690 board STROBE testpoint via the wire (STROBE) cable.
- Install GUI software.

Graphical User Interface (GUI)

- Download and install GUI software located on EVAL Kit Page (https://www.kinet-ic.com/ktd2690eraa-mmev01/)
- After installing software, the interface will appear with the status message "USB Device Attached" at the bottom left side of the window.
- If the displayed message is "USB Device Detached", make sure the computer is properly connected to the board.