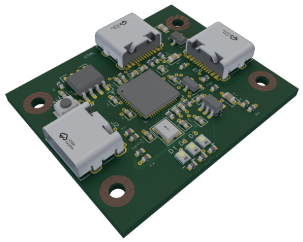
# USB-C Power Resetter

## 1.1 Description

The compact USB resetter restarts a downstream device on a timer. The control computer connects at the top, the upstream supply connects on the right, and the device being reset connects on the left.



Assembly view

## 1.2 Device specifications

| Parameter | Specification |
|---|---|
| **Power path** | Separate USB-C control, input and switched output ports |
| **Status** | Three red, green and blue indicators |
| **Host interface** | USB serial, 115200 baud |
| **PCB dimensions** | 36 × 30 mm |
| **Mounting holes** | Four Ø2.2 mm holes on a 30 × 20 mm grid |

## 1.3 Using the board

Connect the control port to the computer, the passthrough input to the upstream supply, and the target to the output. Choose **Add device → USB resetter**. Send `status` to read the input and output voltages, or `cycle 1` to interrupt downstream power for one second. Leave access to all three connectors.

**Device guide**

# 2 Protocol reference

**USB serial** · 115200 baud · DTR on. Send one ASCII command per line, ending in LF (`\n`).

| Command | Purpose | Reply |
|---|---|---|
| `id` | Identify the device and firmware. | `DEVICE tscircuit resetter 2.0.0` |
| `help` | List supported commands. | One line of command syntax. |
| `?` | Alias for `help`. | Same command list. |
| `status` | Read output state and measured input/output voltages. | Status line shown below. |
| `on` | Enable output power and cancel a pending cycle. | Status line with `out=on`. |
| `off` | Cut output power and cancel a pending cycle. | Status line with `out=off`. |
| `cycle` | Cut power for the default 1 second, then restore it. | `OK cycling` |
| `cycle 0.5` | Cut power for the given number of seconds (0.01–60). | `OK cycling` |
| `reset` | Alias for `cycle`, with the same optional duration. | `OK cycling` |
| `led on` | Turn the indicator on. | `OK led=on` |
| `led off` | Turn the indicator off. | `OK led=off` |
| `led auto` | Show power state on the indicator. | `OK led=auto` |

## Status reply

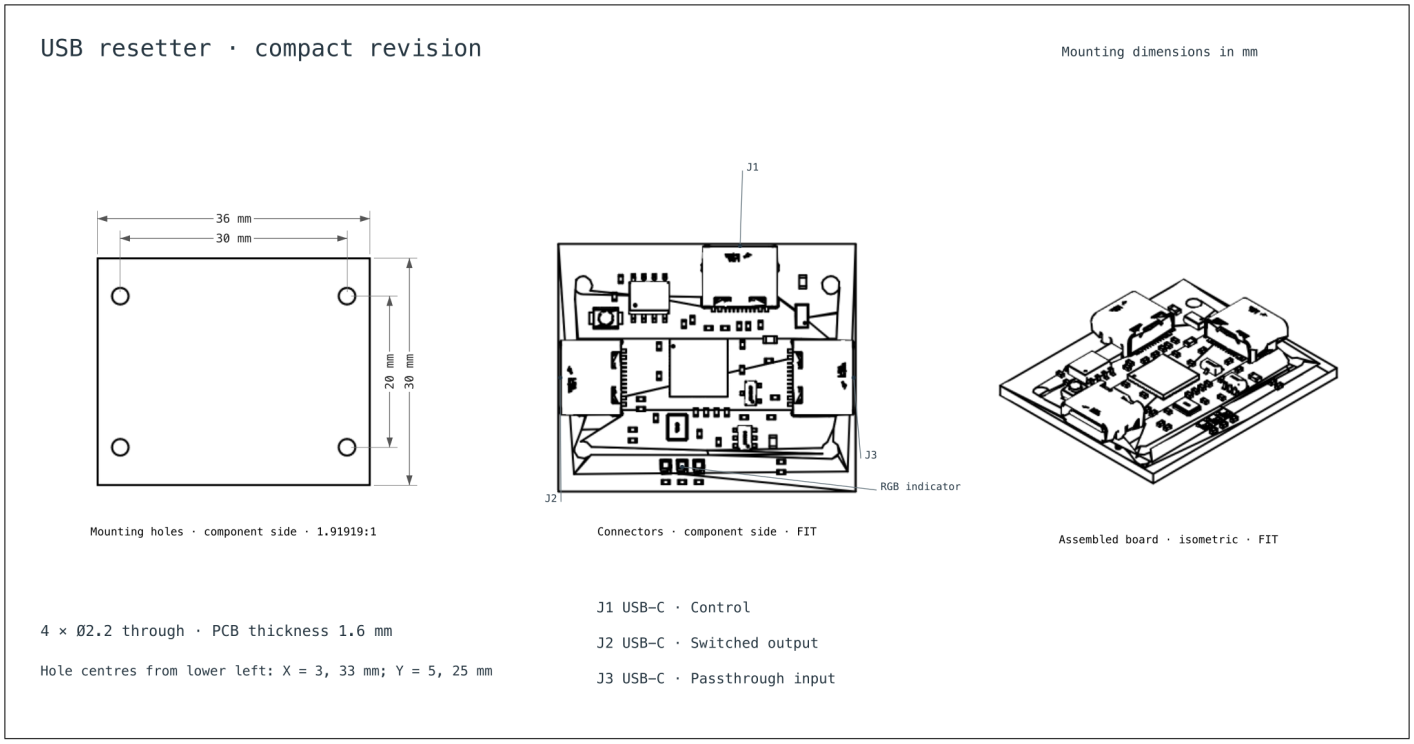
```
OK out=on vin=5.001 vout=4.992
```

`out` is the commanded switch state. `vin` and `vout` are measured in volts. The board starts with output enabled and times each power cycle locally.

Protocol implementation

# 3 Mechanical information

## 3.1 Assembly and mounting




Component-side plan and isometric assembly. Dimensions in millimeters.

## 3.2 Installation dimensions

The compact PCB measures **36 × 30 mm**. Four **Ø2.2 mm** holes fit M2 screws on a **30 × 20 mm** grid. With J1 at the top, measure from the lower-left corner to X = 3 and 33 mm and Y = 5 and 25 mm. The LED centres are 2 mm apart.

**Modeled component height: approximately 3.3 mm above the component-side PCB surface.**

## 3.3 Design resources

**Device guide** · **Full-size mounting drawing** · **Drawing TSX** · **PCB source**