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# USB QUADPORT VE.DIRECT

HW V1.0

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Duppa di Simone Caron
Via Cherso 3 Torino 10136 Italy
duppa@duppa.net

# Revision History

| Revision | Date | Author(s) | Description |
|---|---|---|---|
| 1.0 | 18.06.25 | Simone | First Document Release |

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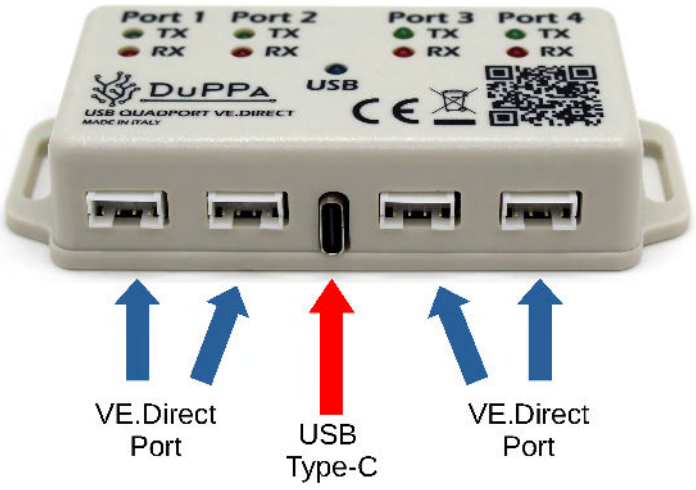
# Contents

# 1. Device Overview

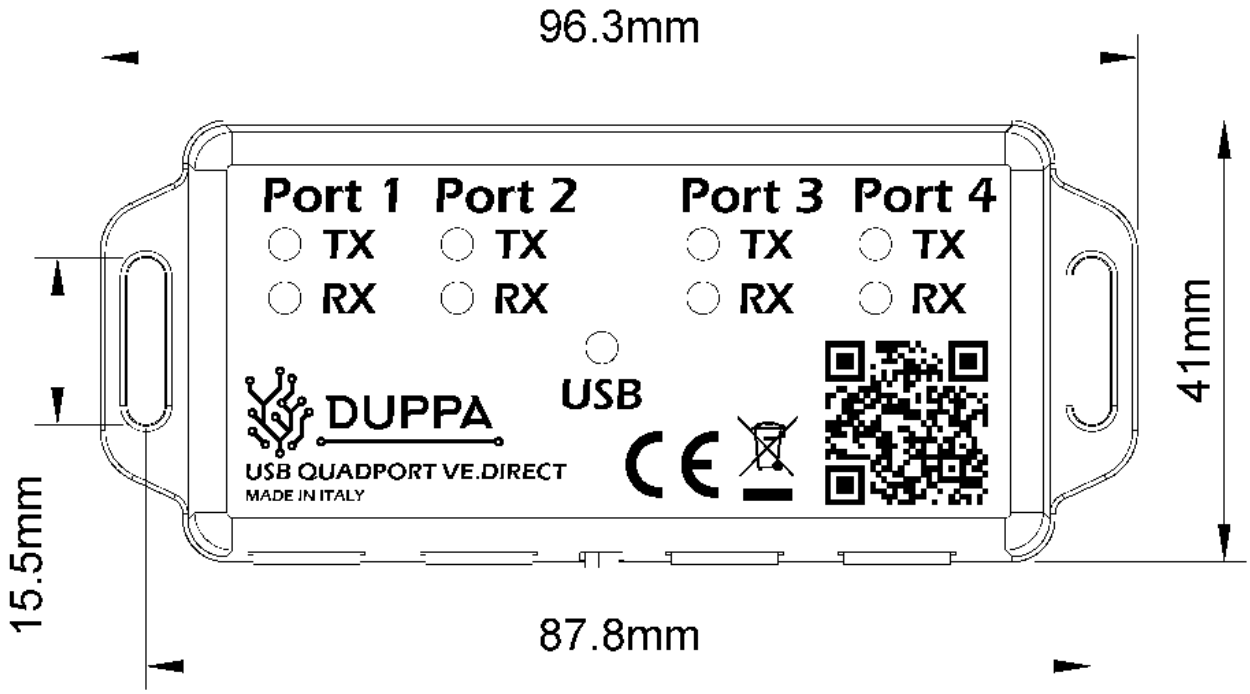
The USB QUADPORT VE.DIRECT is a USB to 4-port UART interface, purpose-built for applications utilizing the VE.Direct protocol.
It includes a USB Type-C connector and four galvanically isolated VE.Direct ports, each equipped with status LEDs for clear communication diagnostics.
The device is fully compatible with Victron Energy systems running Venus OS via USB, and also supports integration with platforms such as Raspberry Pi, Windows, Linux, and others.

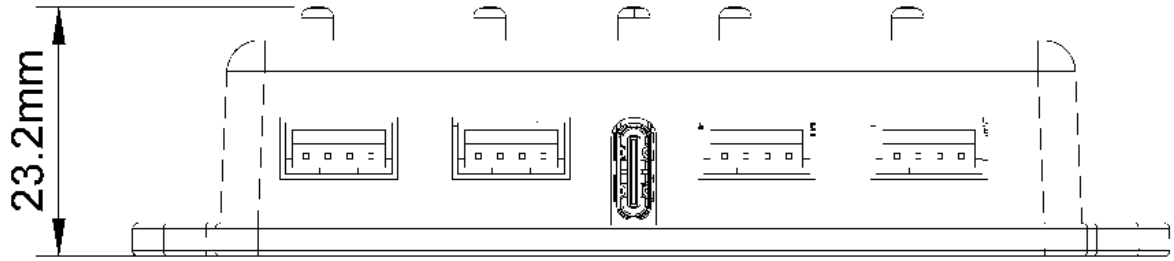
## Features:

- Original FTDI FT4232H-56Q
- Up to 12Mb/s each port
- Plastic case 97 x 41 x 20 mm
- 4 isolated port VE.Direct
- Compatible with original Victron cables
- Each ports can work independently at 3.3V up to 5V
- Power, TX and RX LEDs indicators
- Internal switch for disable/enable the LEDs
- USB type-C connector
- Compatible with: Linux, Windows, Android and Mac OS



## 1.1 Dimension



# 2. Usage

## 2.1 Setup Instructions

The USB QUADPORT VE.DIRECT comes fully assembled and tested. To integrate it into your system, please follow these steps:

1. Power off your system.
2. Connect the VE.Direct cable from your Victron device to one or more of the VE.Direct ports on the USB QUADPORT VE.DIRECT.
   *Note: You do not need to use all four ports, connecting fewer is perfectly fine.*
3. Connect the USB QUADPORT VE.DIRECT to your communication center using a USB cable.
4. Power on your system.
5. Venus OS will recognize automatically the device, no need to install the driver.

If LEDs indicators are enabled:

- The blue LED will remain ON to indicate power.
- The port TX and RX LEDs will blink to show active communication.

Please ensure you are using a USB cable that includes data lines. Some USB cables are designed for power only and do not support data transmission.

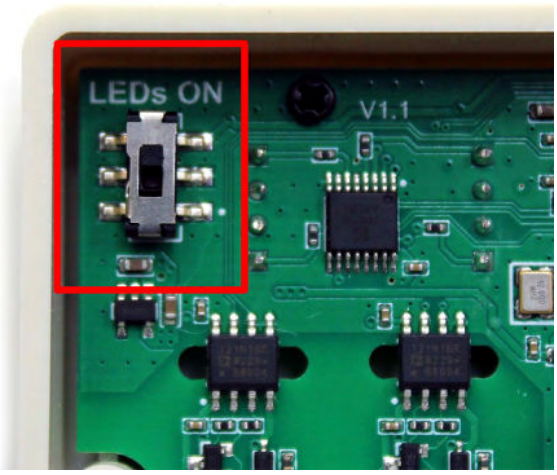
The VE.Direct ports on the USB QUADPORT VE.DIRECT act as master interfaces. Do not connect them to other VE.Direct ports of the communication centers.

## 2.2 Enabling/Disabling LED Indicators

By default the USB QUADPORT VE.DIRECT have the LEDs indicator enabled, In case you want to disable you need to toggle the internal switch.
By default, the LED indicators on the USB QUADPORT VE.DIRECT are enabled.
If you wish to disable them, follow these steps:

1. Power off the device.
2. Unscrew the two screws located on the bottom of the enclosure:

3. Locate the slide switch in the top-left corner of the internal board:




4. Toggle the switch to change the LED status:
   - UP position: LEDs enabled
   - DOWN position: LEDs disabled
5. Reassemble the enclosure and power the device back on.

Always ensure the device is powered off before opening the enclosure to avoid damage or injury.

# 3. Troubleshooting Guide

### ⛔ Power LED is ON, but no communication

This is a common issue. The most likely cause is the use of a USB cable that only carries power and lacks data lines.

✅ **Solution:** Replace the cable with a USB data cable.

### ⛔ Random disconnections

Possible causes and solutions:

✅ **Faulty or degraded SD card:** Try replacing the SD card in your system.

✅ **Poor quality or overly long USB cable:** Use a shorter, high-quality USB cable.

### ⛔ Not all VE.Direct ports are working

✅ **Try rebooting the device to reset the communication interfaces.**