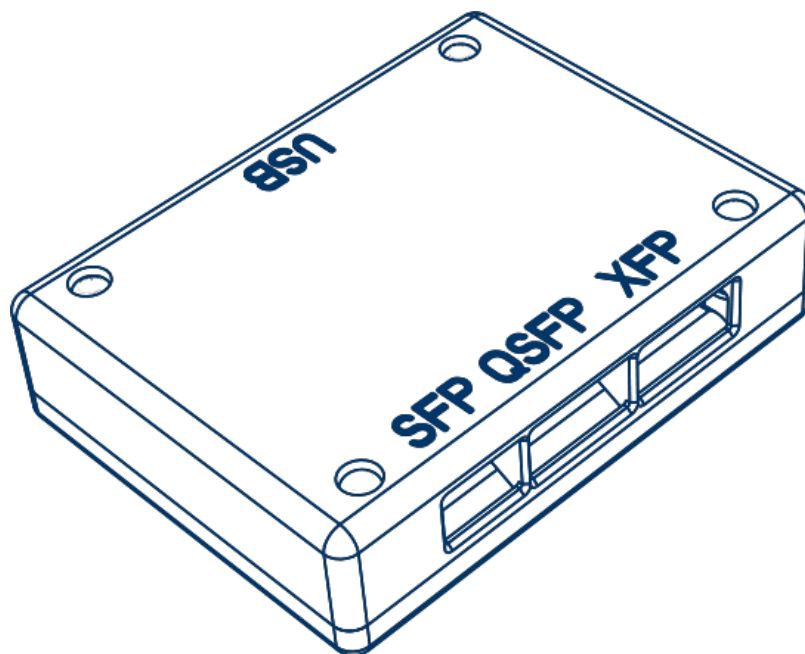# USER SPECIFICATION

SFP/QSFP/XFP 3-in-1 CodingBox

Device

Figure 1: Device

①Green_LED: Normal Power Supply Indicator

②Red_LED: Programmer Board Initialization Abnormal

③White_LED: Read or Write Operation Indicator

④MicroUSB_Interface: USB Interface

⑤Digital tube: CodingBox number

⑥SFP_Transceiver: SFP Module Standard Interface

⑦XFP_Transceiver: XFP Module Standard Interface

⑧QSFP_Transceive: QSFP Module Standard Interface

Introduction

CodingBox is designed for coding optical transceivers more efficiently and conveniently. CodingBox supports multiple transceiver types, such as SFP, SFP28, XFP, QSFP and QSFP28, etc. CSFP option 1 and CSFP option 2 TWI communication is also supported.

Features

- Automatically identify the inserted module type and initialize the corresponding function.

- Support the entire address space transceiver by I2C interface.

- Easy and efficient coding the module data.

- Control low-speed logic signals, like LPMODE, MOD_SEL, TX_DIS.

- Display DOM results, meanings real-time diagnostic information.

- Do some test items based on I2C protocol, like current or random register reading, multiple registers reading and writing, continuous fast reading, and so on.

- Debug the module data by editing and running a script, read the "Script Editing Specification" to learn more.
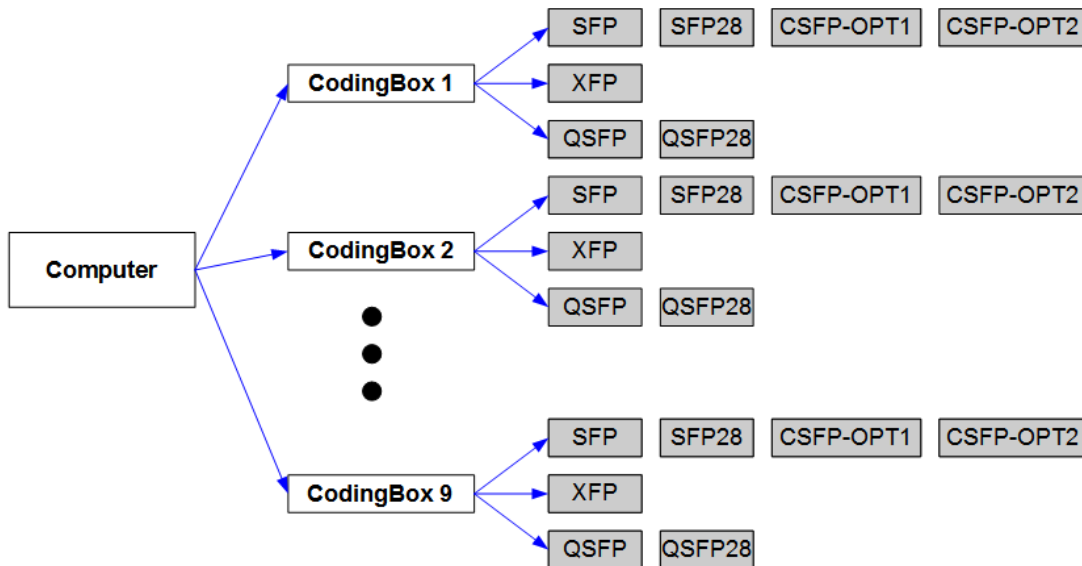
Application

Figure 2: Application

Simply connect CodingBox to a computer with a common USB cable, and you can start using the device.

As is shown in Figure 2, up to 9 CodingBoxes can be mounted on one computer at a time. Each independent device can operate one transceiver. In the near future, efficient coding of QSFP-4SFP cable will be supported.

Description

CodingBox is a programmer board enclosed in a box. We design SFP, XFP, QSFP transceivers interfaces to support the operation of SFP, SFP+, SFP28, XFP, QSFP, QSFP28, CSFP option 1, CSFP option 2 modules, please note that only one module can be operated at a time by CodingBox.

We designed 3 built-in LED, green, red and white, to indicate the status of CodingBox. The green indicator will be bright when CodingBox is power supply, which means that the USB data

cable is connected between computer USB port and CodingBox's Micro USB_interface. The red indicator will be bright if the CodingBox initialization is abnormal, even cause permanent damage to the device. The white indicator will be flashing when reading and writing.

We design built-in digital tube to number the CodingBox. In the beginning, we randomly choose a CodingBox to number 1 between those mounting on PC, if users want to use another, click the left interface resource pool number of supporting software, EzCoding.

We will design an external 3-plug I2C interface, SCL, SDA, GND in future version.

NOTE

When the red indicator light, you should disconnect the CodingBox's USB cable immediately and seek technical support.

If you have any problem about our product, please contact us through email support@sfpcodingbox.com. We will deal with it as soon as possible.

To learn more, please visit www.sfpcodingbox.com.

Version

Version	Date	Directions
1.0	2018-05-14	General function introduction, initial release
1.1	2018-05-29	Streamlined content