Datasheet

MODULETEK: CODINGBOX-C10

SFP/QSFP/XFP 3-in-1 CodingBox

Product Brief

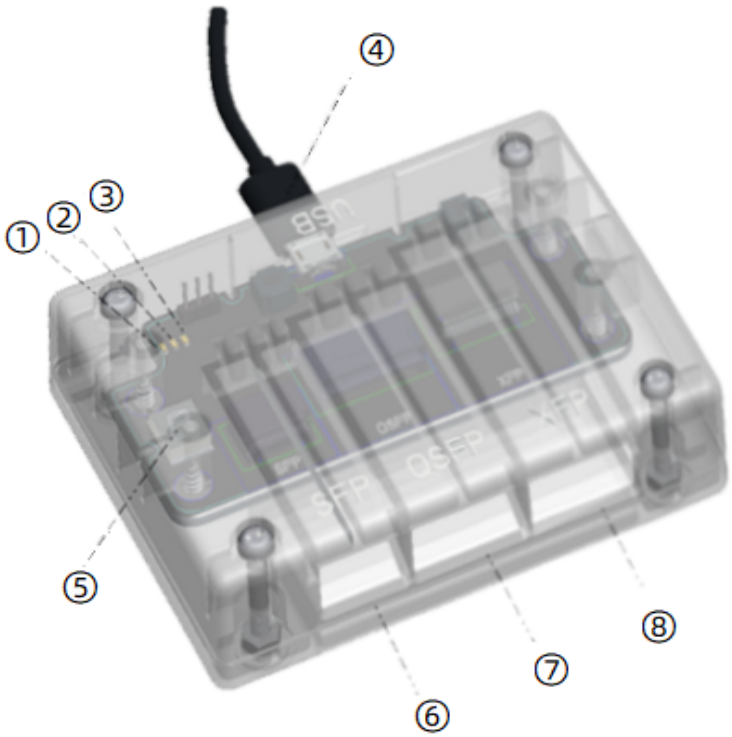
The CodingBox is designed for reading and writing transceiver codes.it facilitates I2C testing and EEPROM read/write for optical transceiver mudules in SFP/SFP+/SFP28,XFP,QSFP/QSFP28 form factors. It can be used to:

1.Read the Digital Diagnostic Monitoring(DDM/DOM) signals of modules.
2.Interpret detailed parameters of MSA-compliant module coding.
3.Perform script-based online debugging of optical transceiver modules.

Applications

SFP/SFP28
XFP
QSFP/QSFP28

Product Componets



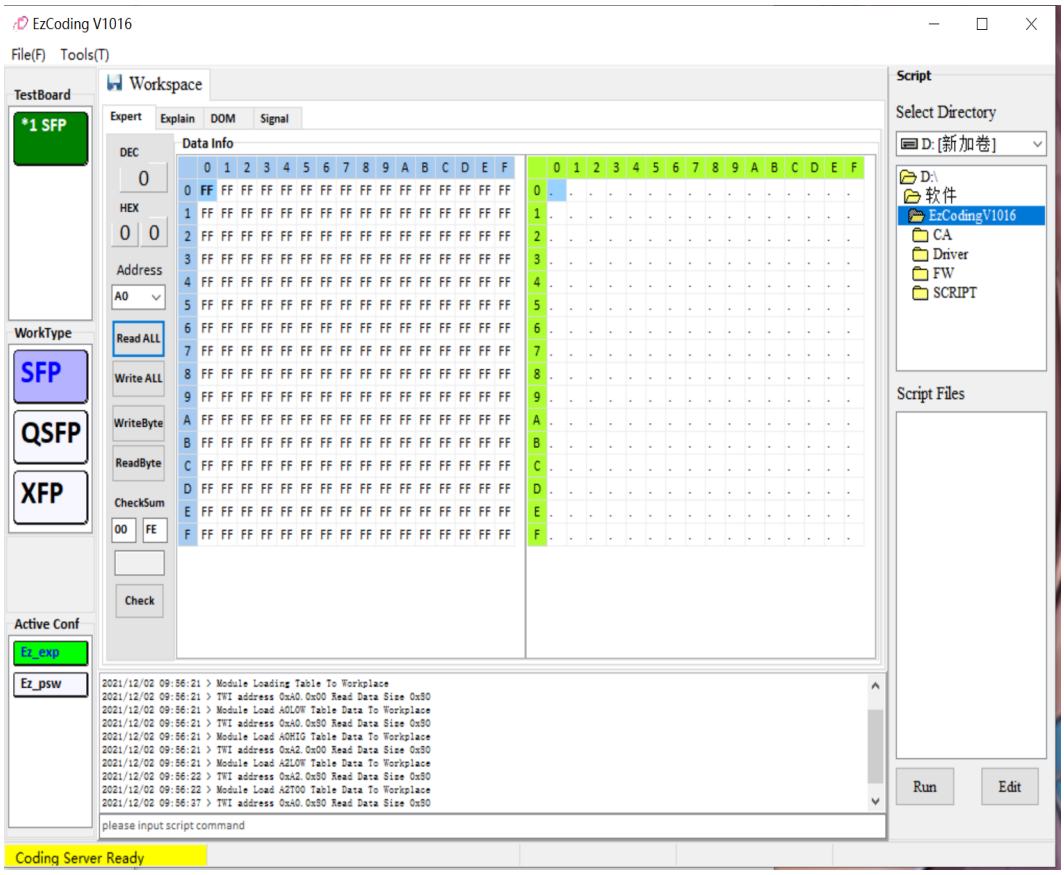
1. Green_LED: Normal Power Supply Indicator
2. Red_LED: Device Initialization Abnormal
3. White_LED: Operation Status Indicator
4. MicroUSB_Interface: USB Connection
5. Digital tube: Number Display
6. SFP_Transceiver: SFP Standard Interface
7. XFP_Transceiver: XFP Standard Interface
8. QSFP_Transceive: QSFP Standard Interface

Functional Description

Core functional of CodingBox include:I2C read/write,DD(DOM),low-speed signal control,MSA-based parameter analysis,and script-driven online debugging.Specifically:

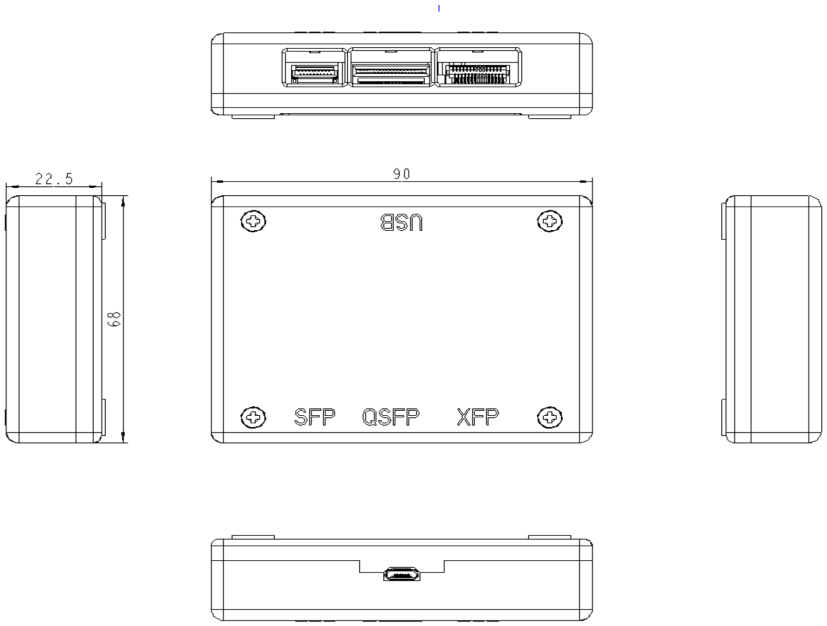
1. Automatic Transceiver Recognition
   Dynamically identifies module type(SFP+/QSFP28/XFP)and initializes interfaces
2. I2C Address Space Management
   Supports central address mapping for transceiver communication
3. EEPROM Programming
   Streamlined module data encoding with validation
4. Low-Speed Signal Control
   Direct manipulation of LPMODE,MODSEL,TXDIS logic signals
5. Raed-Time DOM Diagnostics
   Live monitoring and xisualization of diagnostic parameters(Temp/Voltage/Power)
6. I2C Protocol Testing Suite
   Register operation:random read,multi-byte burst R/W,sequential access
7. Script-Based Debugging
   Edit/execute scripts for firmware debugging and register simulation

Software Interface



EZCoding software enable I2C read/write,EEPROM programming,and I2C protocol testing for optical transceiver modules,with ongoing development to expand functionality.

Dimensions



Undimensioned tolerance ±0.2mm
Unit:mm