

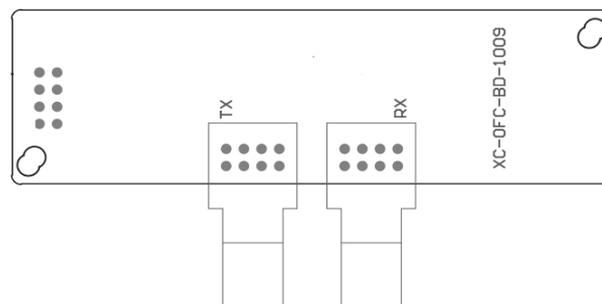
Communication expansion board XC-OFC-BD

1. Introduction

Fiber communication has many advantages such as large transmission capacity, good security. Fiber is applied to the situation of wide bandwidth and long distances as its low loss, high capacity and no need many relays. If many fibers lay together for long distances, there is no communication interference between them. Fiber communication network is better than RS232 and RS485 mode. Xinje Fiber BD board has good noise immunity ability, long communication distances, and fast speed.

2. Features and installation

XC-OFC-BD has high baud rate and fast communication speed. The signal is transferred through light wave. Light wave has strong noise immunity ability; the max transmission distance is 1KM. It is easy to build the network, the slave station can up to 254.



TX: send port of XC-OFC-BD

RX: receive port of XC-OFC-BD

Installation:

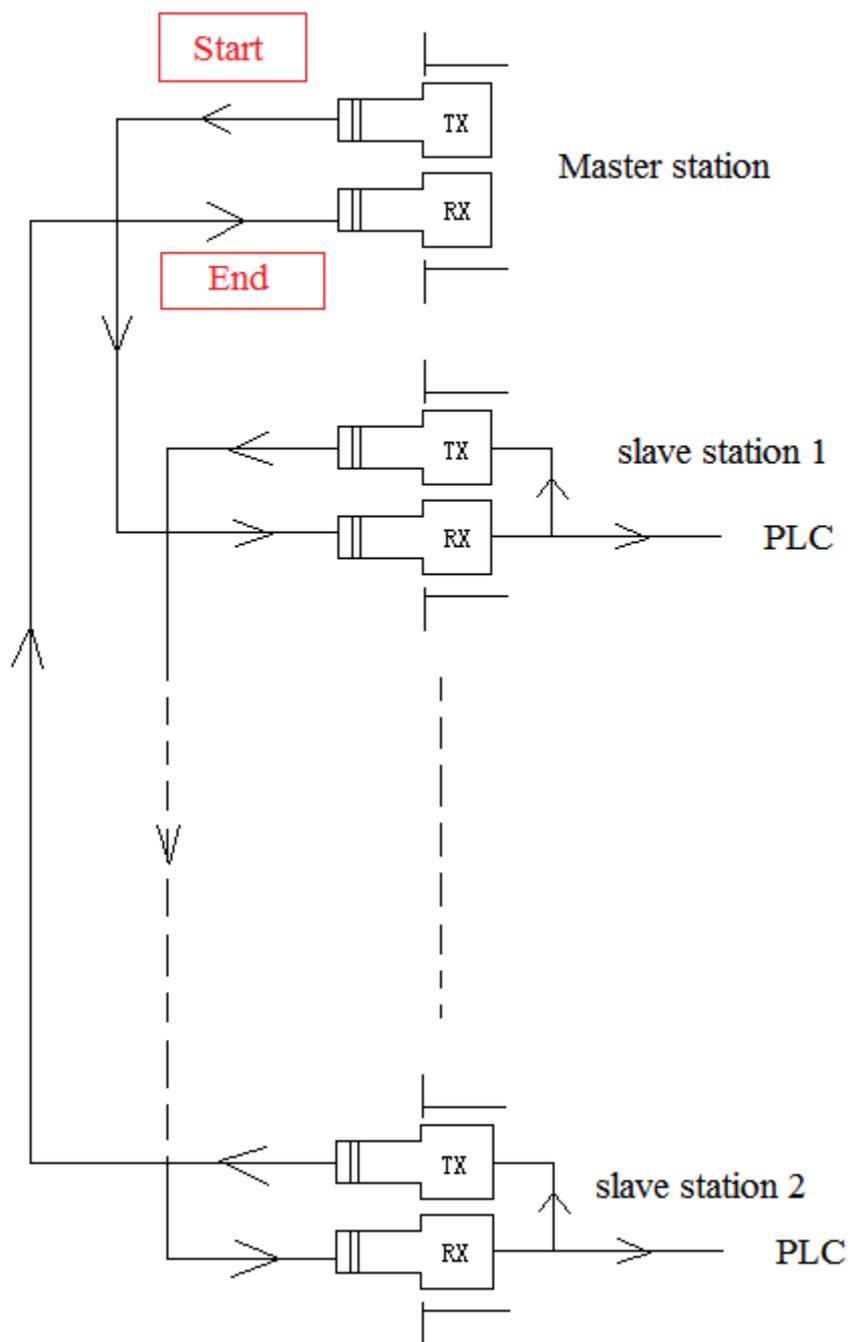
Open the left cover of PLC, install the BD board into the pins, fix it with the screws, and close the cover.

XC-OFC-BD will occupy the serial port 3 of PLC. Please set port 3 of PLC in XCPpro software. Please take notes of the following items when setting:

- (1) Configure the BD board before setting the serial port.
- (2) Set the same baud rate for all the port3 in the network.
- (3) Set different station no. for all the port3 in the network. (Except baud rate and station no. other parameters are default settings.)

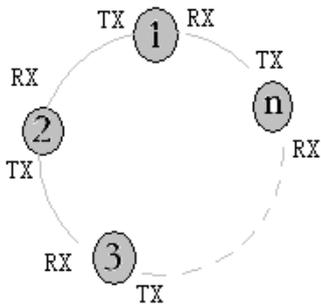
3. Example

The signal transmission direction in the network:



If master station sends data to slave station 2, slave station 1 will receive the data but not response. The data will send out from TX port of slave station 1.

The data cannot transfer from RX to TX when master station is sending data. This diagram will not drop in endless loop.

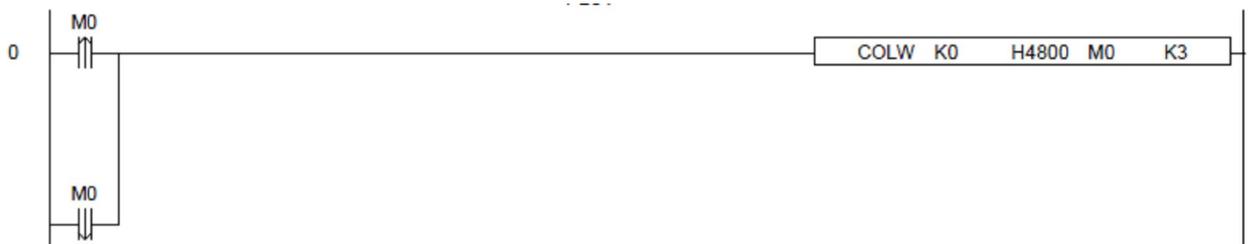


In the network, if $n=5$, there are 5 PLCs. One master PLC will control the Y0 of other 4 slave PLCs. The control mode is similar to RS485 network (broadcast mode and individually control mode).

Broadcast mode: set all the slave station no. to 0, master is not 0. Master station sends commands to slave station. Slave station will not answer but only response. Broadcast mode can write but not read.

Individually control mode: read and write the corresponding station no.

Program 1: Broadcast ----- all the slave station no. are 0.



Write the value of M0 to all the slave stations.

Program 2: individual mode ----- master station no.1, other 4 slave
station no. is 2, 3, 4, 5.

