

# SPECIFICATION

**MODEL: B09004-LAP-JTAG 2.0-M**

**PART NO:** \_\_\_\_\_

**VERSION:** V1.08

Approver		Check	Design
GM	PM		

Customer Confirm

---

# Content

1. Software Register .....	3
2. User Interface .....	6
3. Operating Instructions .....	9

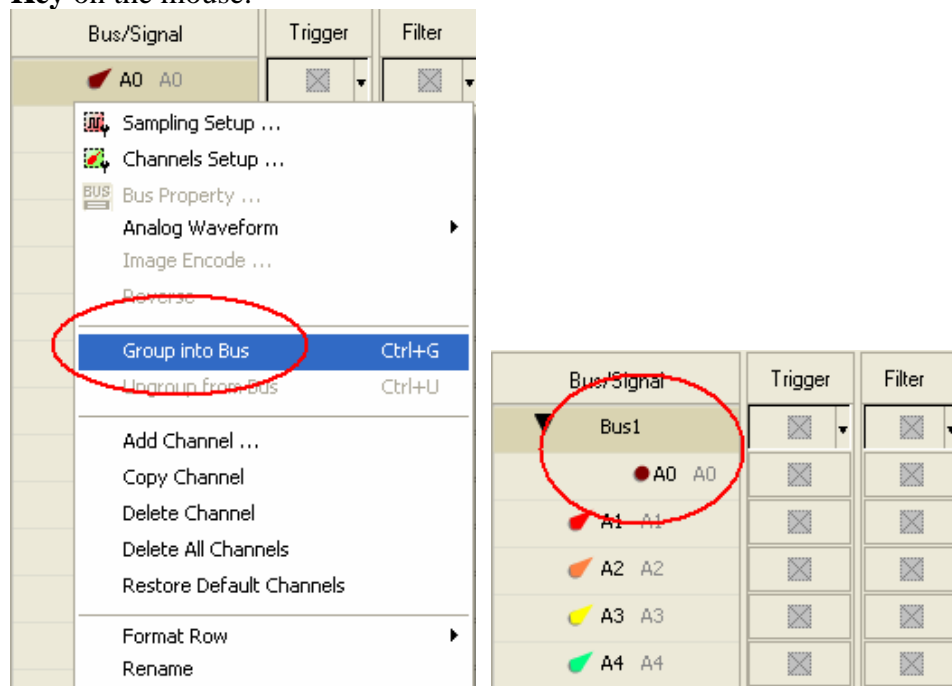
# 1. Software Register

Please register the software as the following steps:

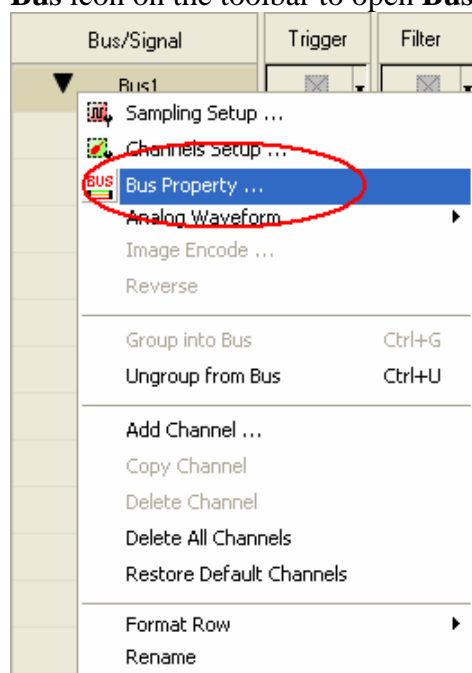
※ **Remark1:** The registration steps for all protocol analyzers are the same; you can complete the registration by following procedures. Following is an example on how to register the Protocol Analyzer BUS.

※ **Remark2:** We won't have additional notice for you, when there is any modification of the module specification. If there is some unconformity caused by the module version upgrade, users should take the module software as the standard.

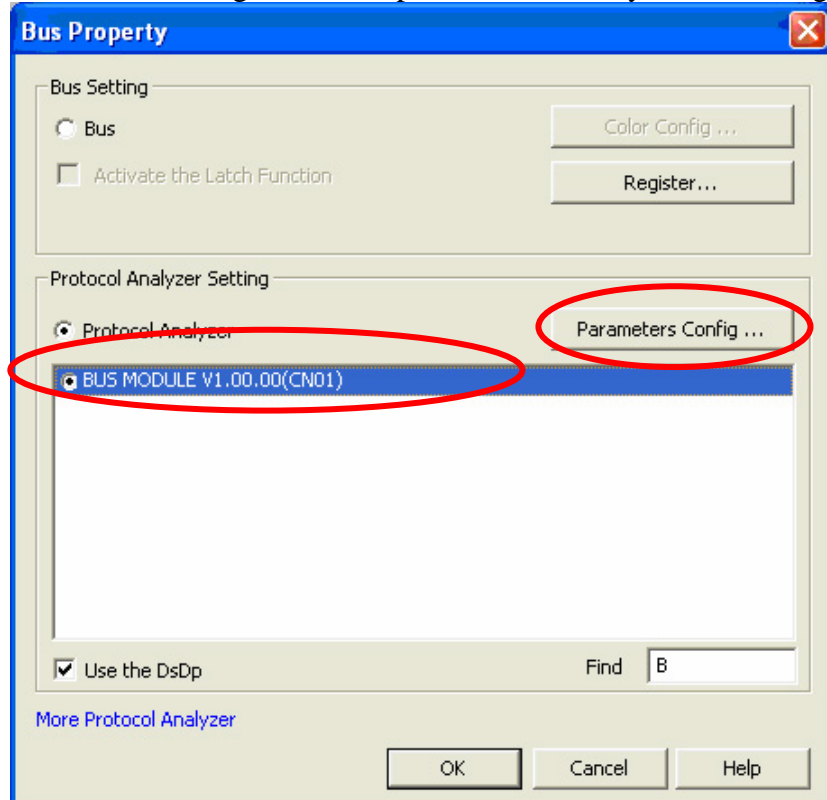
**STEP 1.** Open the Logic Analyzer and group the unanalyzed channels into **Bus1** by pressing the **Right Key** on the mouse.



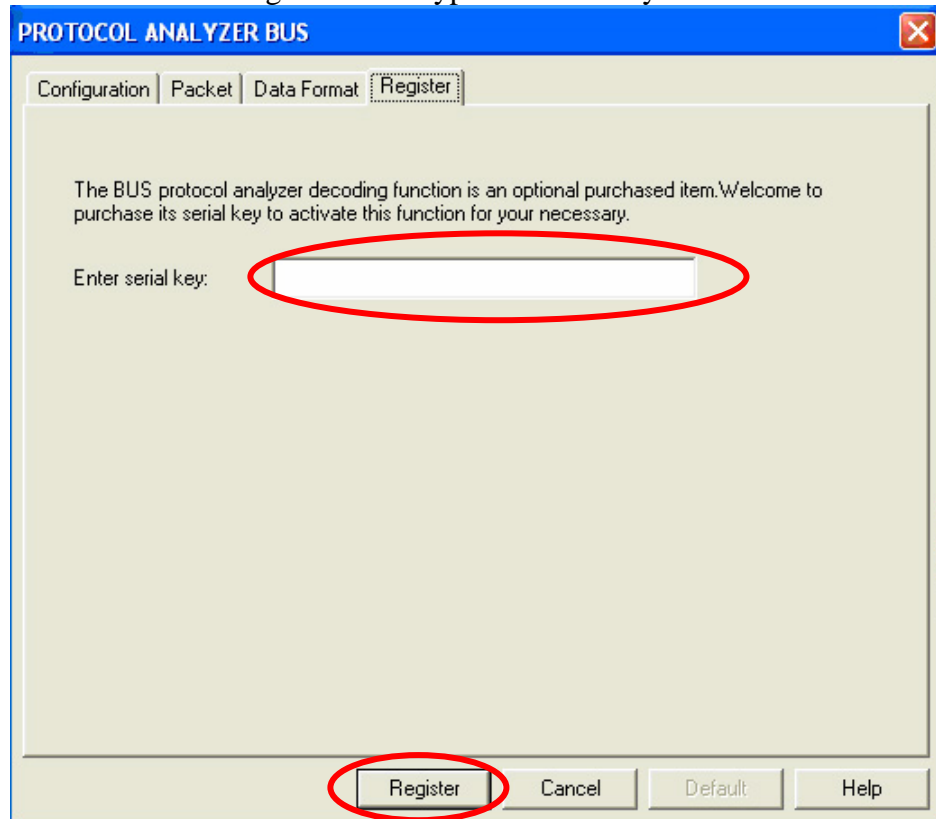
**STEP 2.** Select **Bus 1**, then press **Right Key** on the mouse to list the menu, then press **Bus Property** or **Bus** icon on the toolbar to open **Bus Property** dialog box.



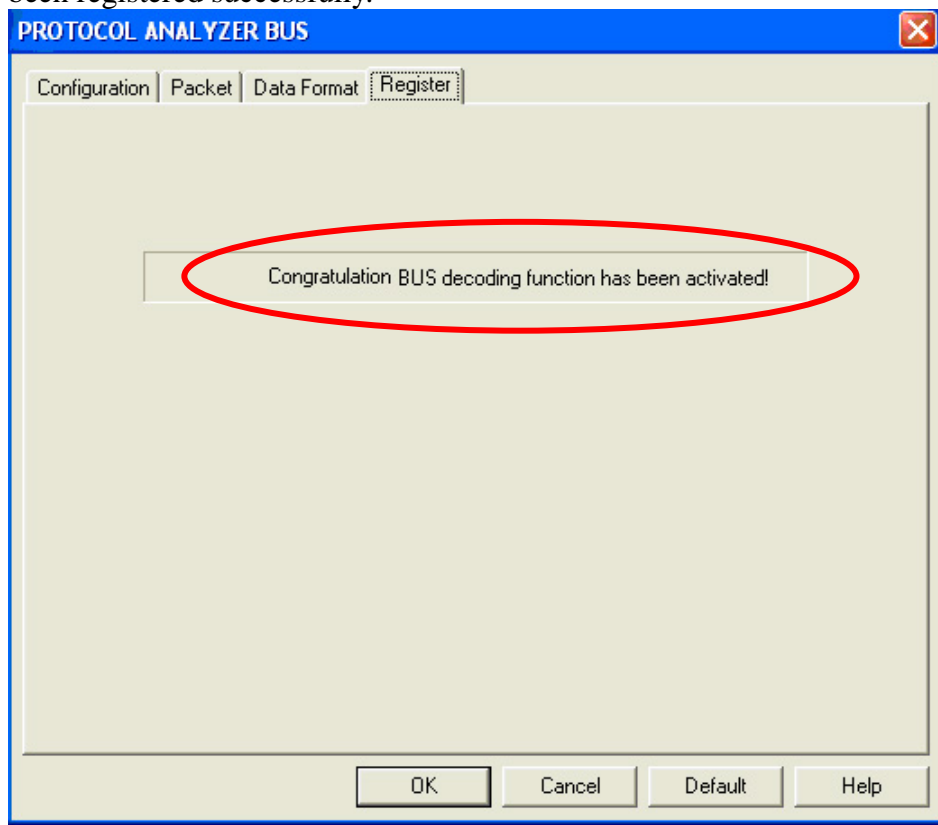
**STEP 3.** Select the Protocol Analyzer, and then choose **BUS MODULE V1.00.00 (CN01)**. Next click Parameters Configuration to open Protocol Analyzer Bus dialog box.



**STEP 4.** Press Register tab to type the serial key number of BUS. Then press Register.



**STEP 5.** After pressing the Register button, following dialog box will appear, it denotes that the BUS has been registered successfully.

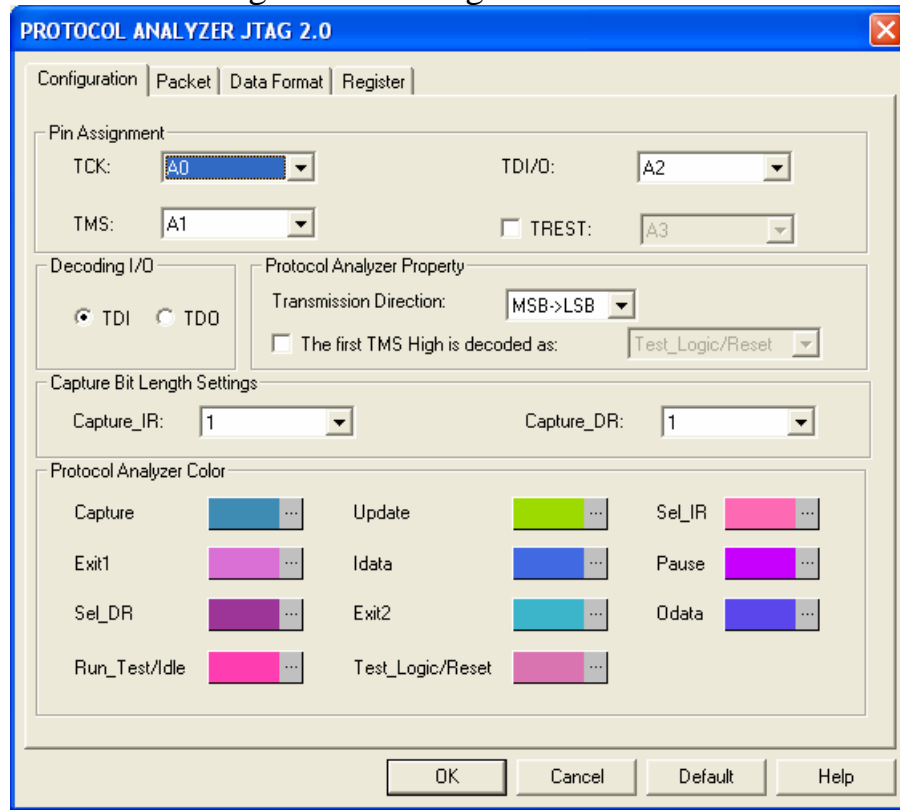


---

## 2. User Interface

Please refer to below images to select options of setting JTAG 2.0 module.

### JTAG 2.0 Configuration Dialog Box



#### Pin Assignment:

**JTAG 2.0** needs three or four channels to decode the signals.

**TCK:** The TCK will produce the Synchronous Clock when it starts to transmit the data.

**TMS:** When it is reset, the initial TMS is High. In the Synchronous Clock mode, the corresponding internal Transmission mode will be selected for TMS according to the TMS mechanism.

**TDI/O:** When the data is entered in the SHIFT\_IR segment, the data will be shifted to the IR at the TCK Rising Edge. At the same time, when the data is shifted to the IR by the TDI, some data will be shifted out of the IR by the TDO at the TCK Falling Edge.

**TREST:** It is the Reset signal which is valid at the Low Level. Its priority is the highest in the JTAG system. That is to say, when the TREST appears, no matter what status is, the status should be returned to the Test\_Logic/ Reset status, the default is not selected.

#### Decoding I/O:

Set the Decoding Mode to TDI or TDO.

**Transmission Direction:** Set the Transmission Direction to MSB->LSB or LSB->MSB, the default is MSB->LSB.

**The first TMS High is decoded as:** When the option is selected, the first TMS High can be decoded as Test\_Logic/Reset, Sel\_DR, Sel\_IR, Exit1\_DR, Exit1\_IR, Exit2\_DR, Exit2\_IR or Update.

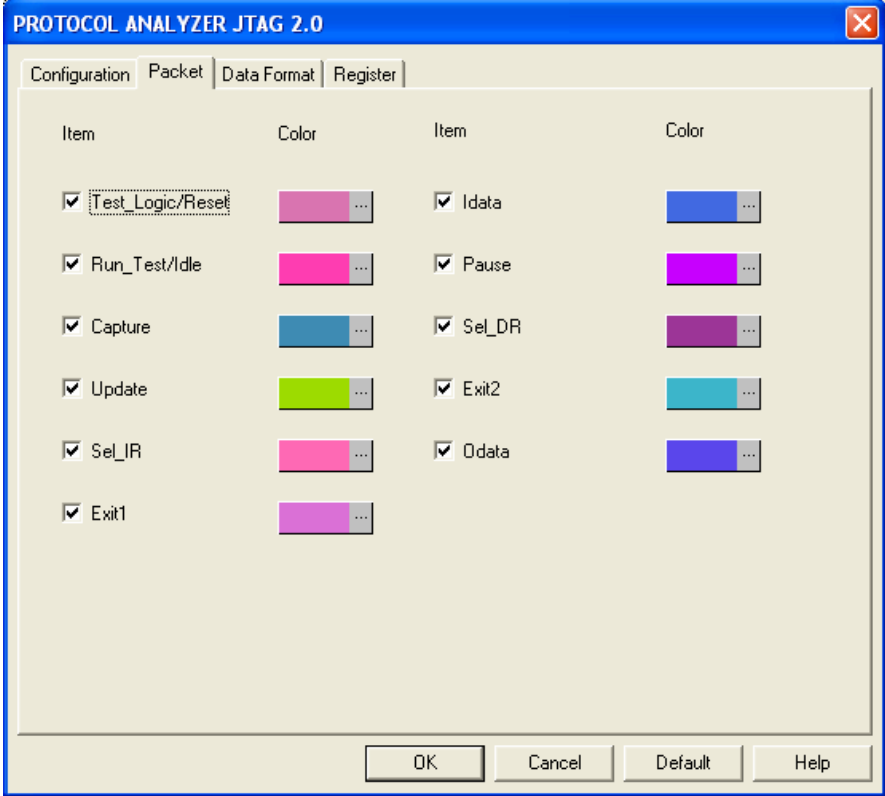
#### Capture Bit Length Settings:

Select the Bit Length of the Capture\_IR and Capture\_DR from the corresponding pull-down menus, and the default Bit Length of the Capture\_IR and the Capture\_DR is “1” respectively.

#### Protocol Analyzer Color:

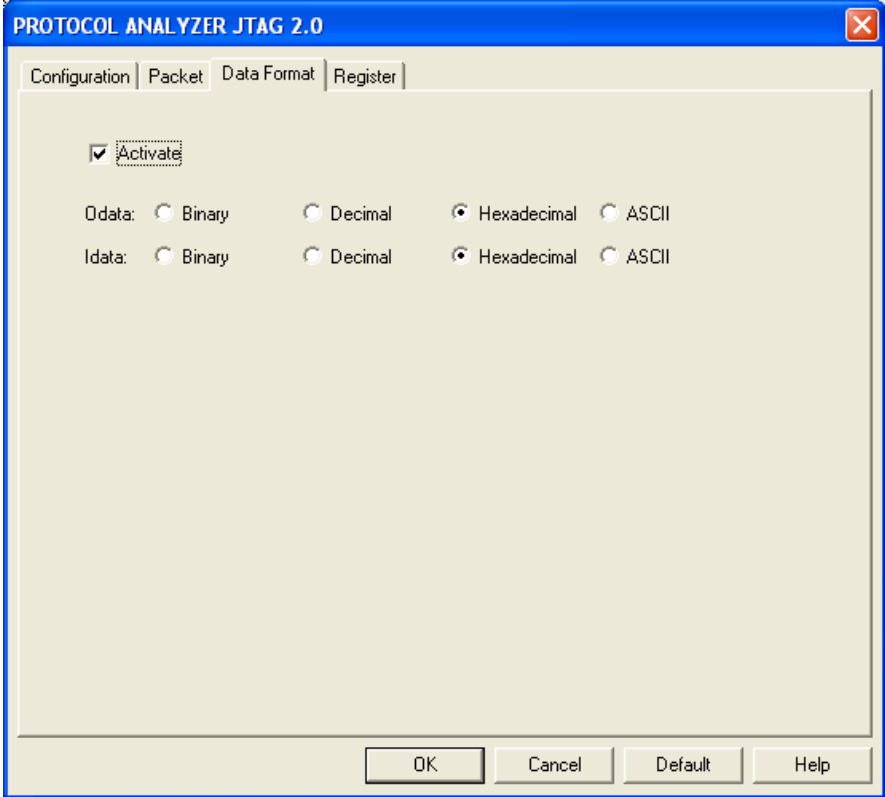
The protocol analyzer color can be varied by users.

## JTAG 2.0 Packet Dialog Box



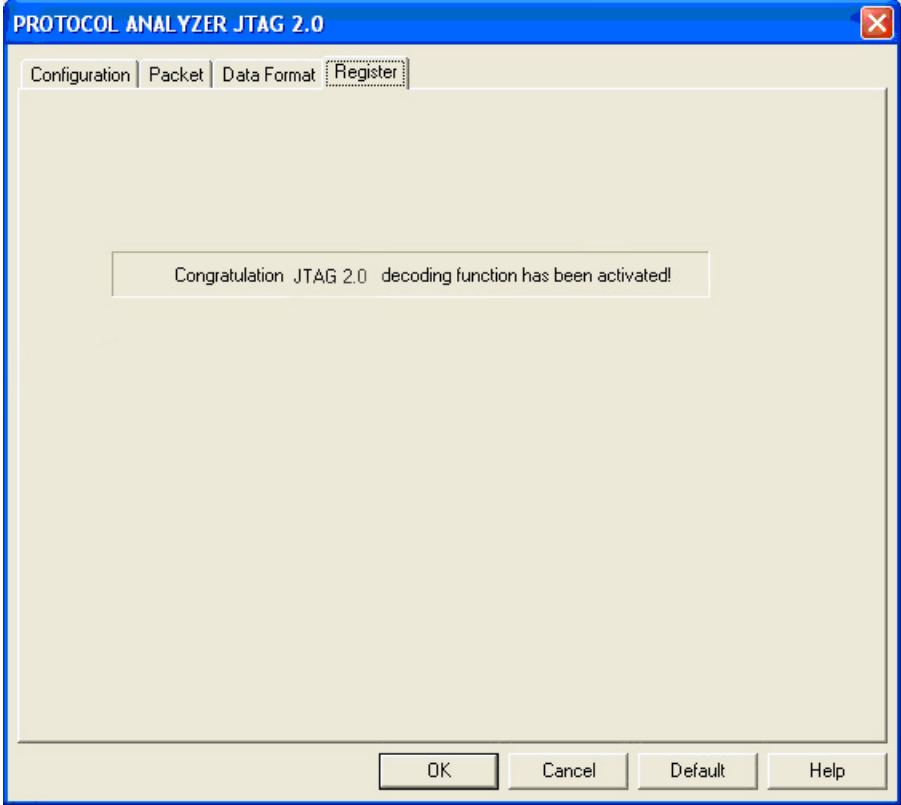
In the Packet part, users can set the items and colors as users' requirements.

## JTAG 2.0 Data Format Dialog Box



Users can set the Data Format of the Odata and Idata as their requirements. When selecting the option, Activate, the data format is decided by the settings in the Protocol Analyzer; when not selecting the option, Activate, the data format is decided by the settings in the main program.

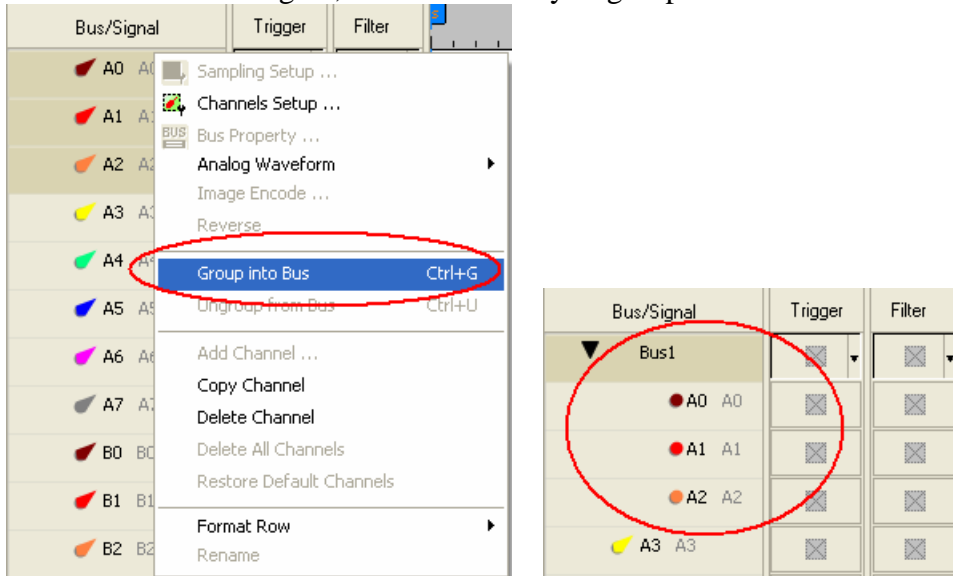
# JTAG 2.0 Register Dialog Box



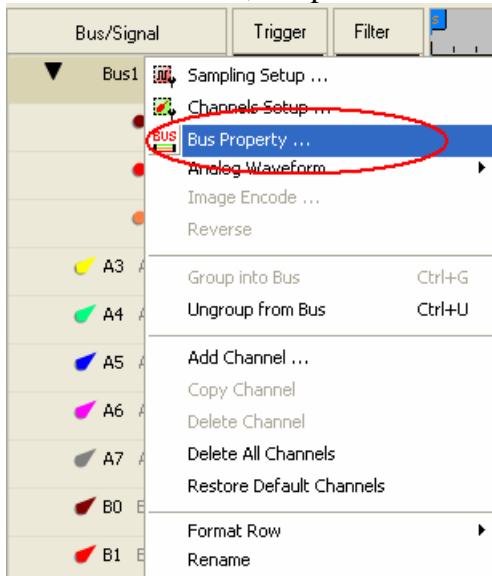


### 3. Operating Instructions

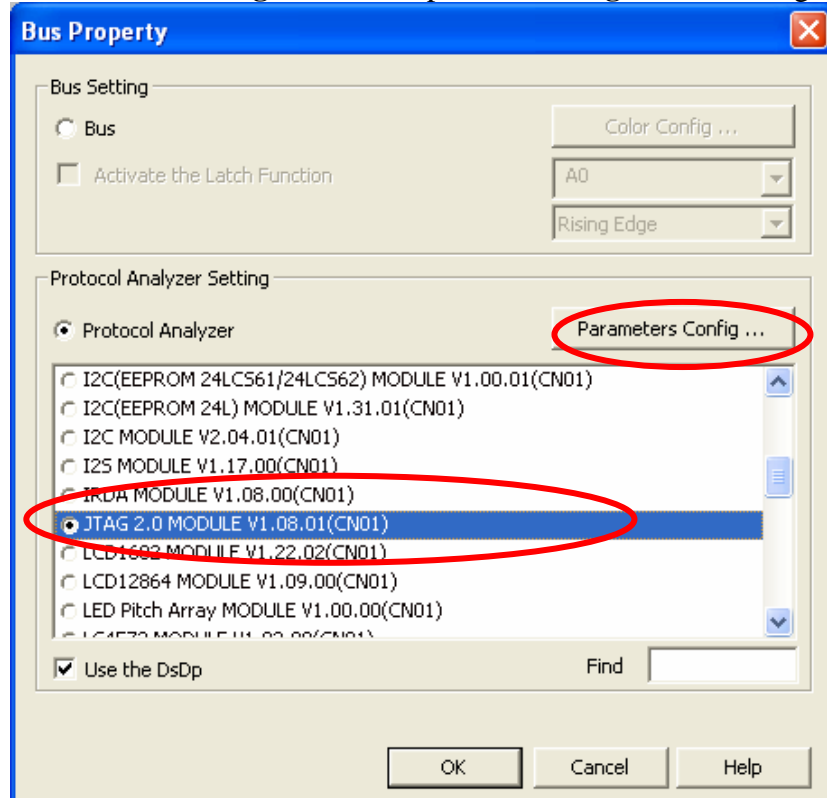
**STEP 1.** Group A0-A2 into **Bus1** by pressing the **Right Key** on the mouse. **JTAG 2.0** needs three channels to decode signal, so it is necessary to group three or more channels into a Bus.



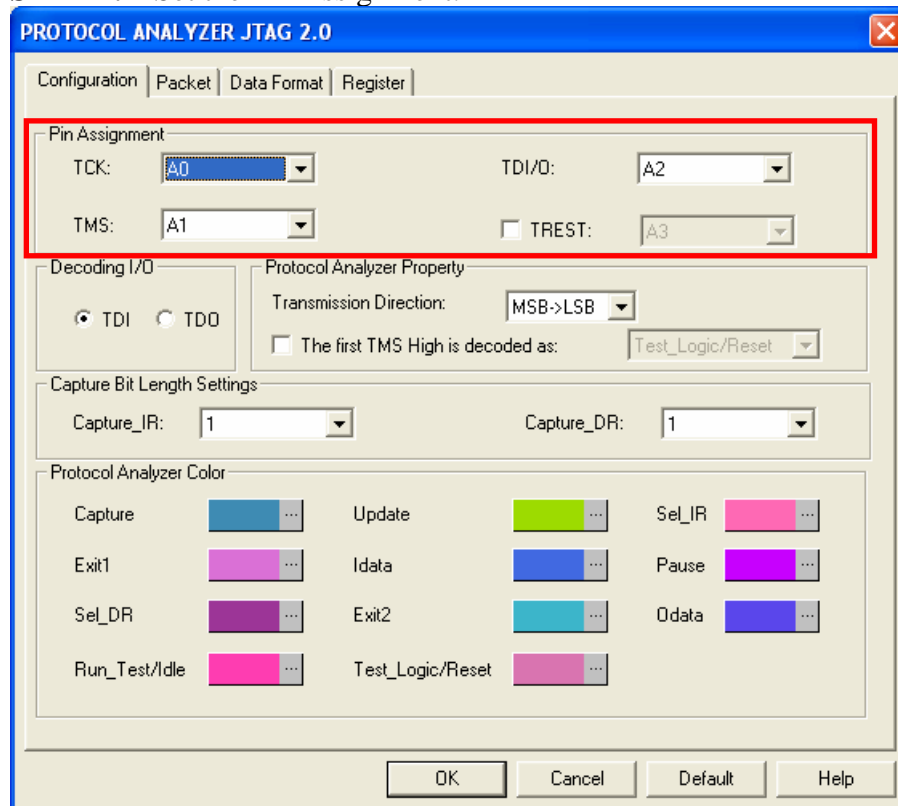
**STEP 2.** Select **Bus1**, press right key and select **Bus Property** from the popped menu, or click the **Bus** icon on the toolbar, to open the **Bus Property** dialog box.



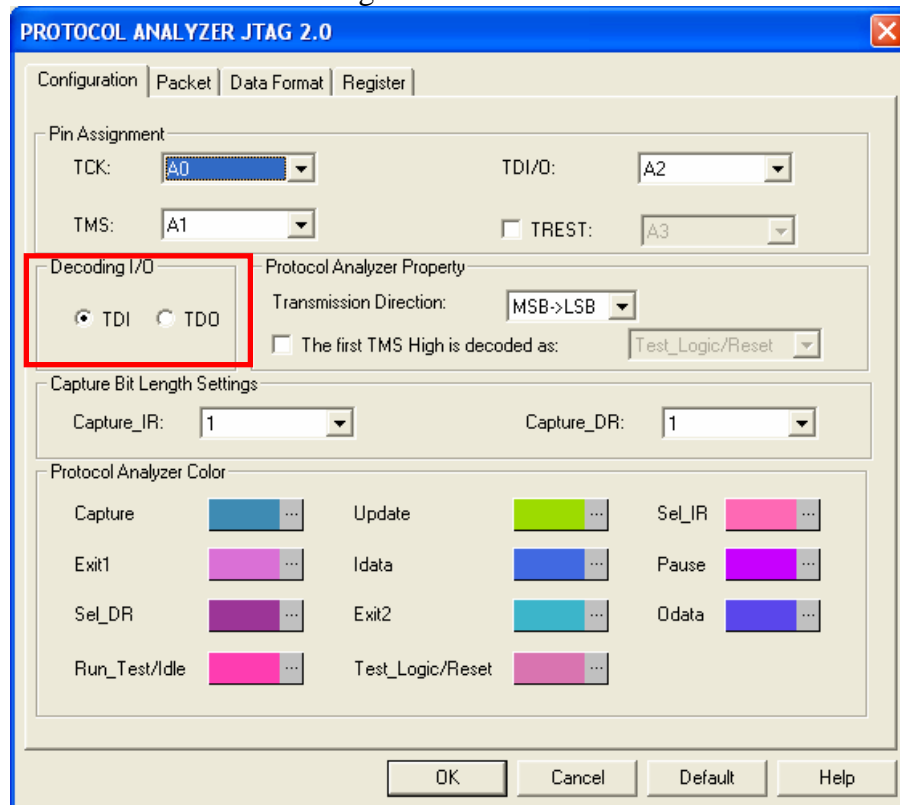
**STEP 3.** Select Protocol Analyzer, and select **JTAG 2.0 MODULE V1.08.01(CN01)**, then click **Parameters Configuration** to open the **Configuration** dialog box.



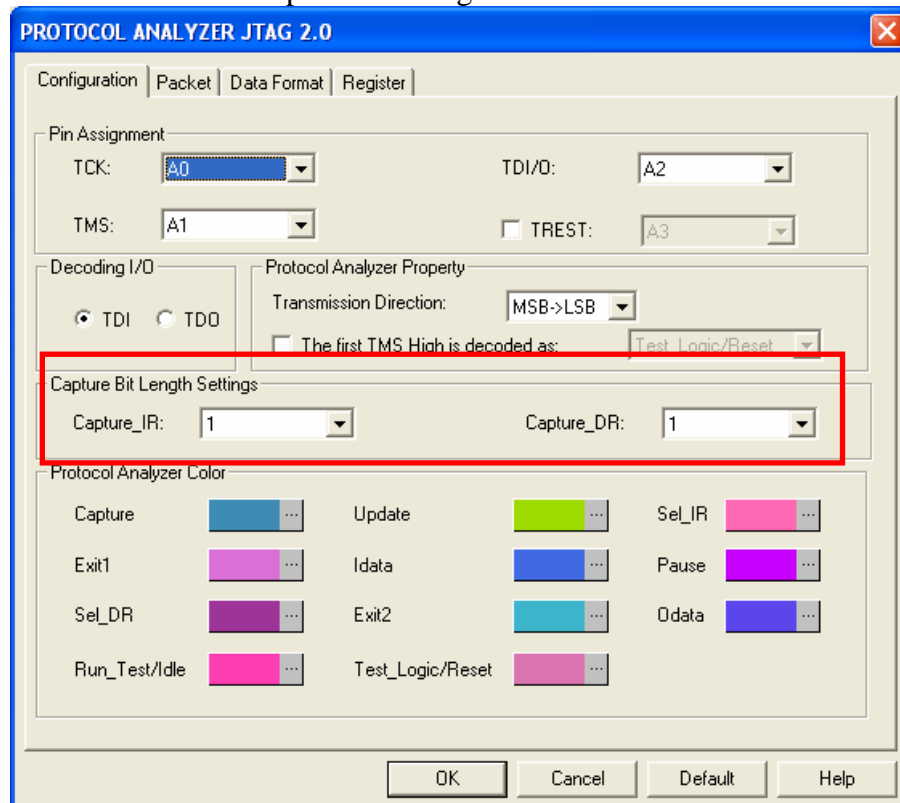
**STEP 4.** Set the Pin Assignment.



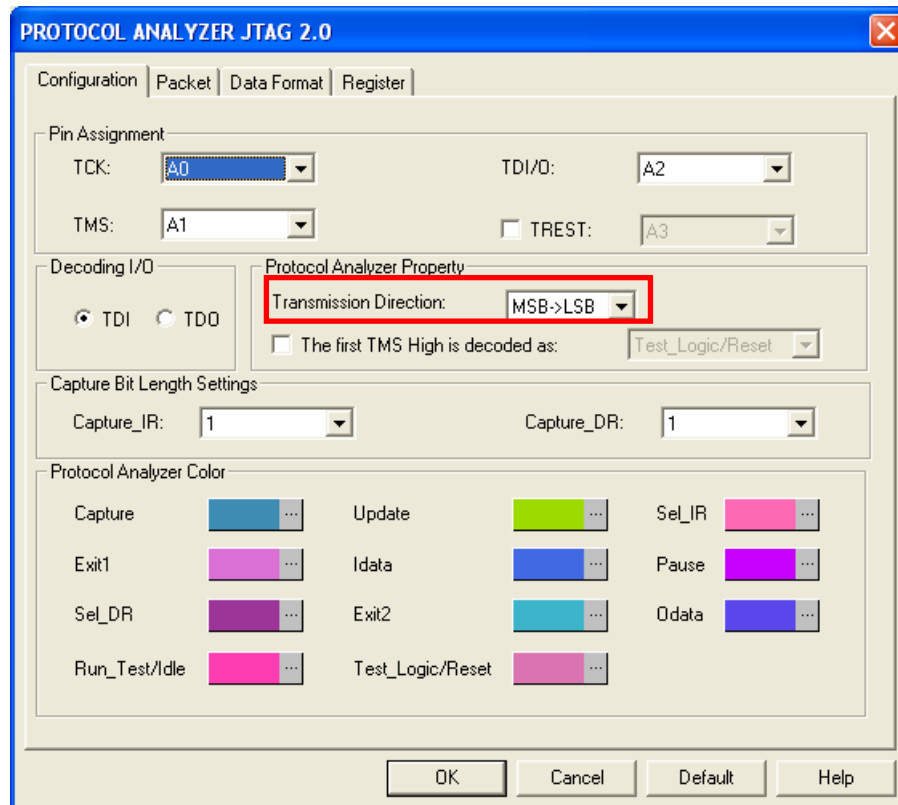
## STEP 5. Set the Decoding I/O.



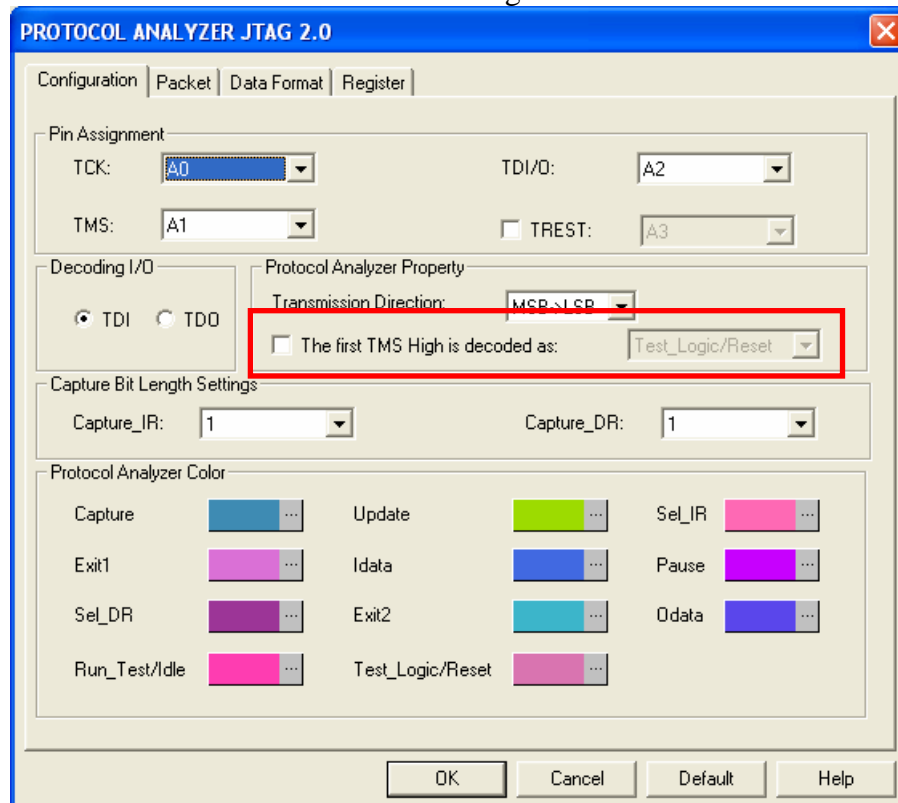
## STEP 6. Set the Capture Bit Length.



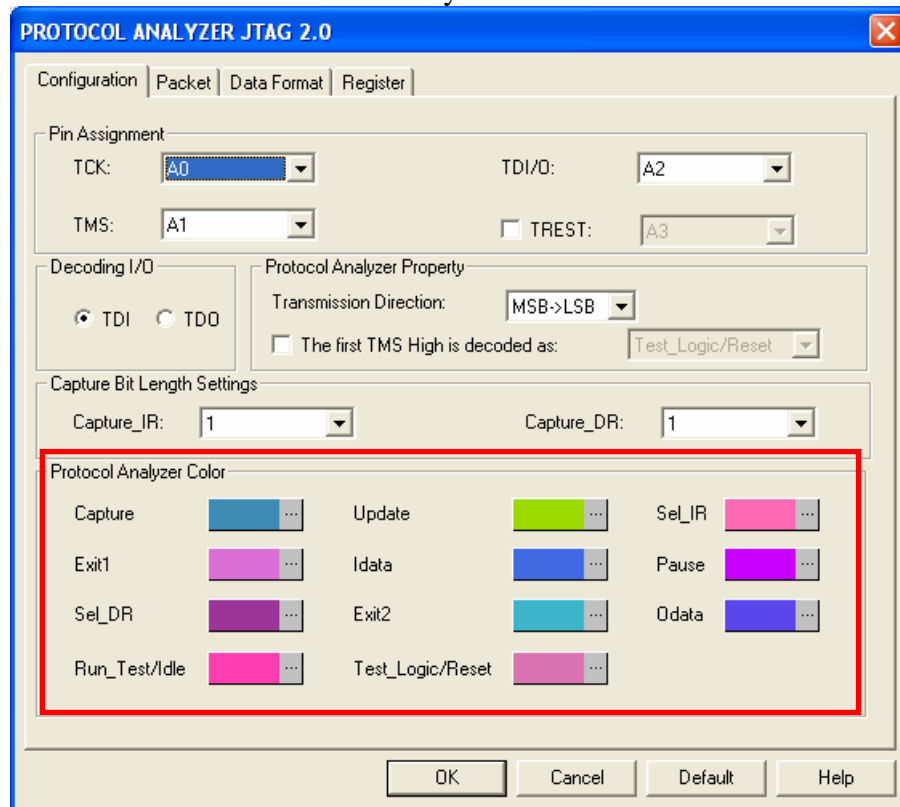
**STEP 7.** Set the Transmission Direction .



**STEP 8.** Set the “The first TMS High is decoded as”.

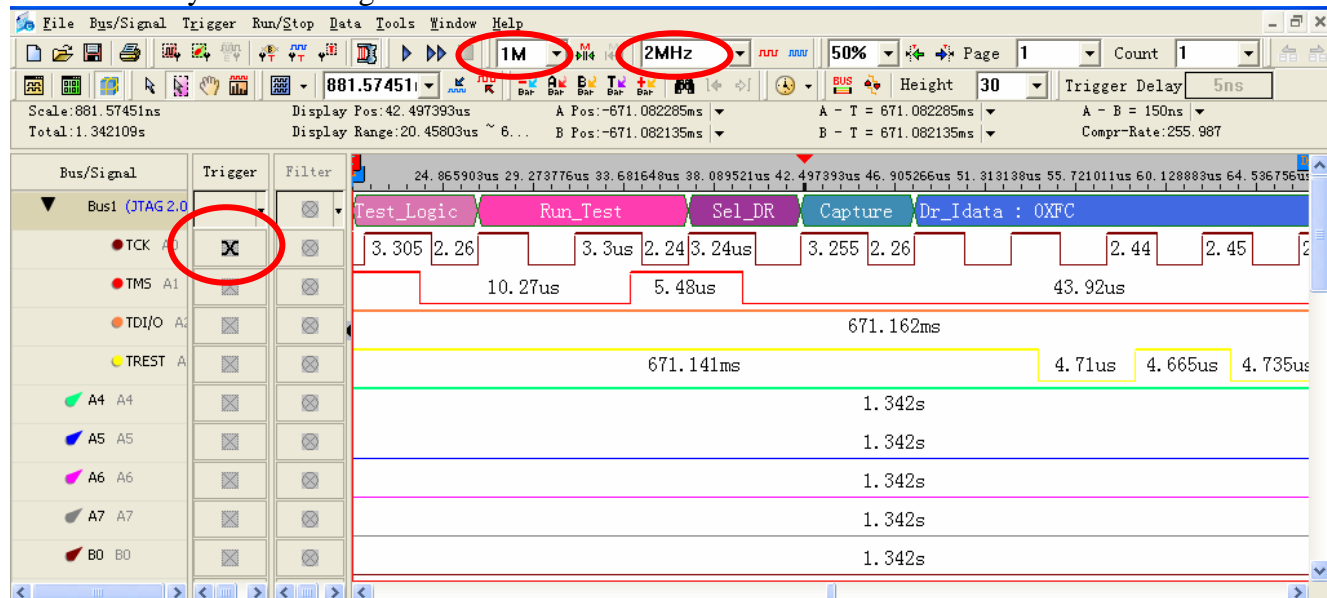


## STEP 9. Set the Protocol Analyzer Color.



**STEP 10.** Following pictures show the completion of the protocol analyzer decoding and the packet list. The trigger condition is set as Either Edge; the memory depth is 1M; the sampling frequency is 2MHz (the sampling frequency should be more than five times higher than the signal to be tested).

## Protocol Analyzer Decoding



## Packet List

