

# SPECIFICATION

**MODEL: 005-LAP-HDQ-M**

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

**VERSION:** V2.09

Approver		Check	Design
GM	PM		

Customer Confirm

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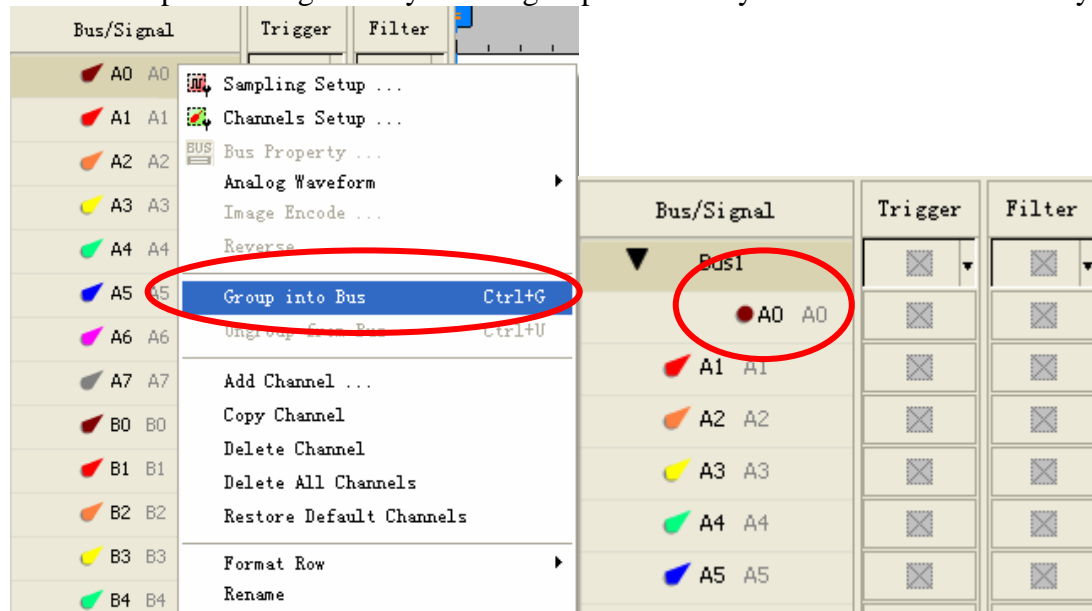
# 1. Software Register

Please register the software as the following steps:

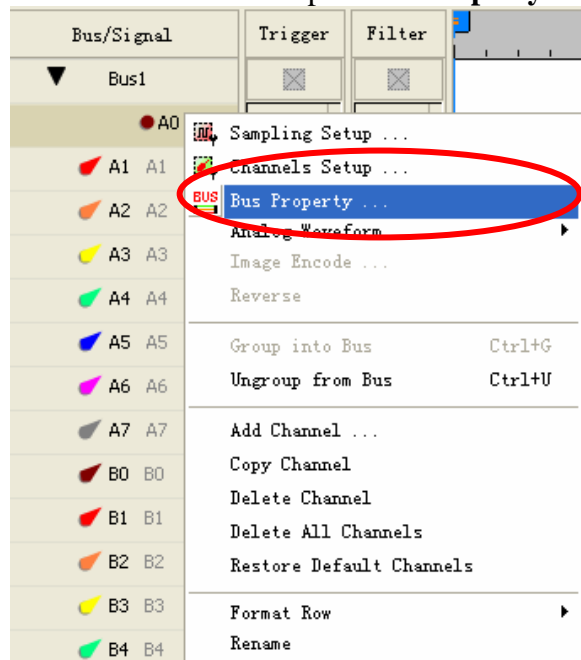
※ Remark1: The registration steps for all protocol analyzers are the same; you can complete the registration by following procedures. Following is an example on how to register the Protocol Analyzer BUS.

※ 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.

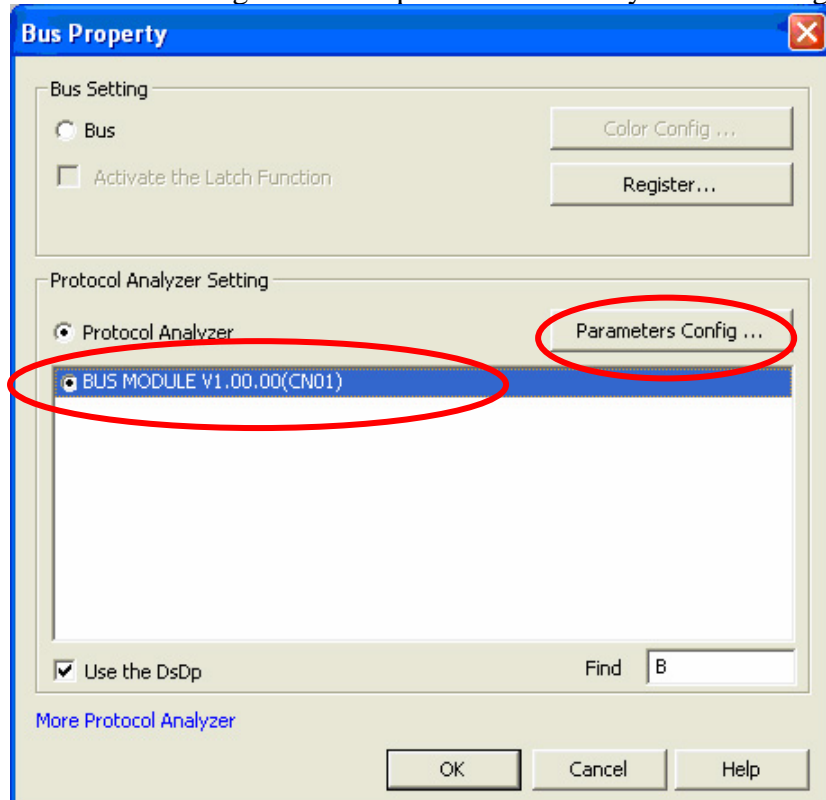
**STEP 1.** Open the Logic Analyzer and group the unanalyzed channels into **Bus1** by pressing the **Right Key**.



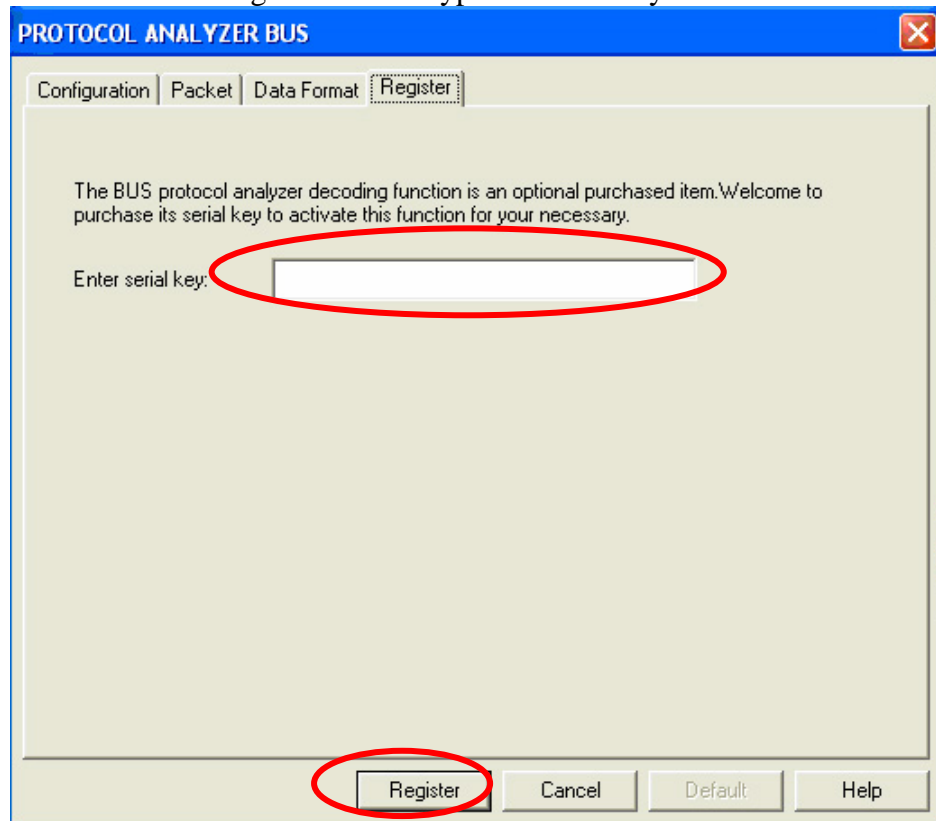
**STEP 2.** Select **Bus 1**, then press **Right Key** on the mouse to list the menu, then press **Bus Property** or **Bus** icon on the toolbar to open **Bus Property** dialog box.



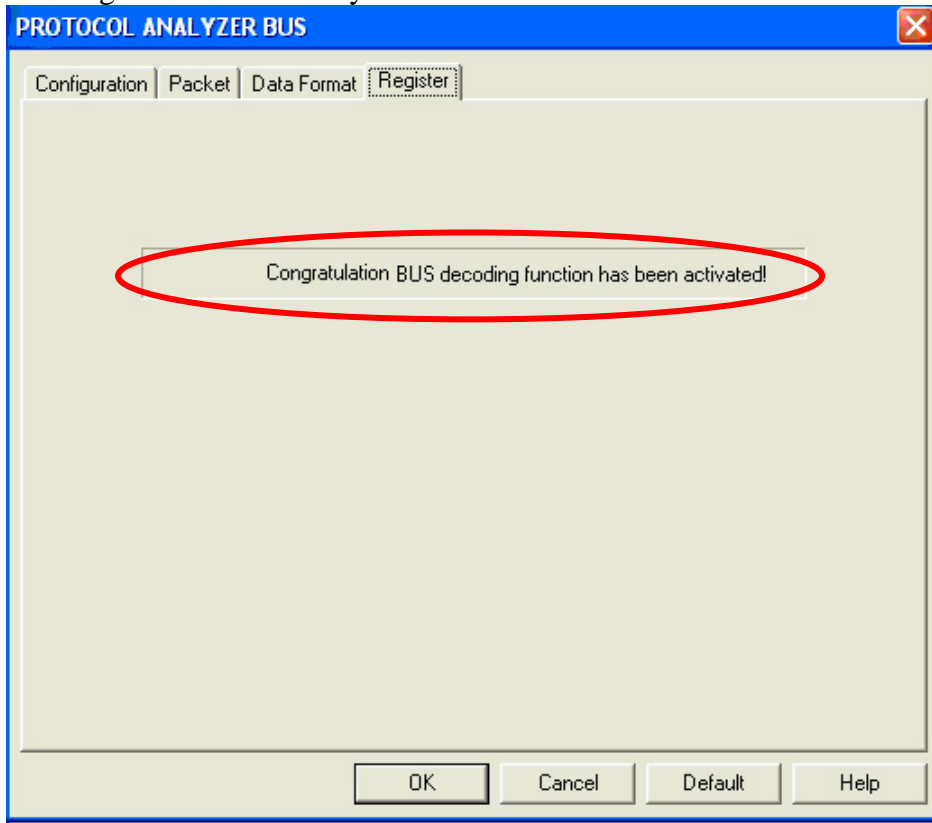
**STEP 3.** Select the Protocol Analyzer, and then choose **BUS MODULE V1.00.00 (CN01)**. Next click Parameters Configuration to open Protocol Analyzer Bus dialog box.



**STEP 4.** Click Register tab and type the serial key number of BUS. Then click Register.



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



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## 2. User Interface

Please refer to the below images to select options of setting **HDQ** module.

### HDQ Configuration dialog box

**PROTOCOL ANALYZER HDQ**

Configuration | Packet | Data Format | Register

Pin Assignment  
Channel: A0

Time Settings(us)  
Break: 190 to 1000000 Recovery: 40 to 1000000  
Host 1: 0 to 70 Device 1: 0 to 70  
Host 0: 80 to 180 Device 0: 80 to 180  
Host Bit: 190 to 260 Device Bit: 190 to 260  
☒ Response: 190 to 320 Remark: 1000000 is infinite

Protocol Analyzer Color  
Break Recovery Address Read Write Data  
[Green] [Teal] [Orange] [Blue] [Red] [Green]

OK Cancel Default Help

#### Pin Assignment:

HDQ only needs one channel to decode the signals, and the default is A0.

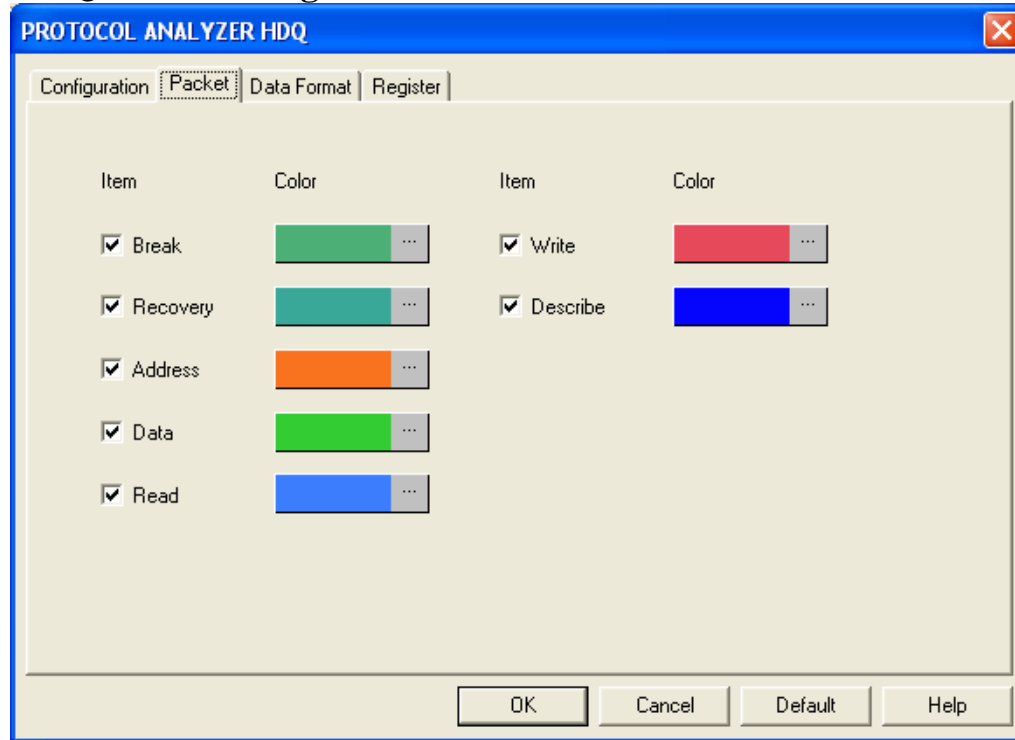
#### Time Settings (us):

Set the value of the corresponding time range, whose unit is us, for example, Break is from 190 to 10000000.

#### Protocol Analyzer Color:

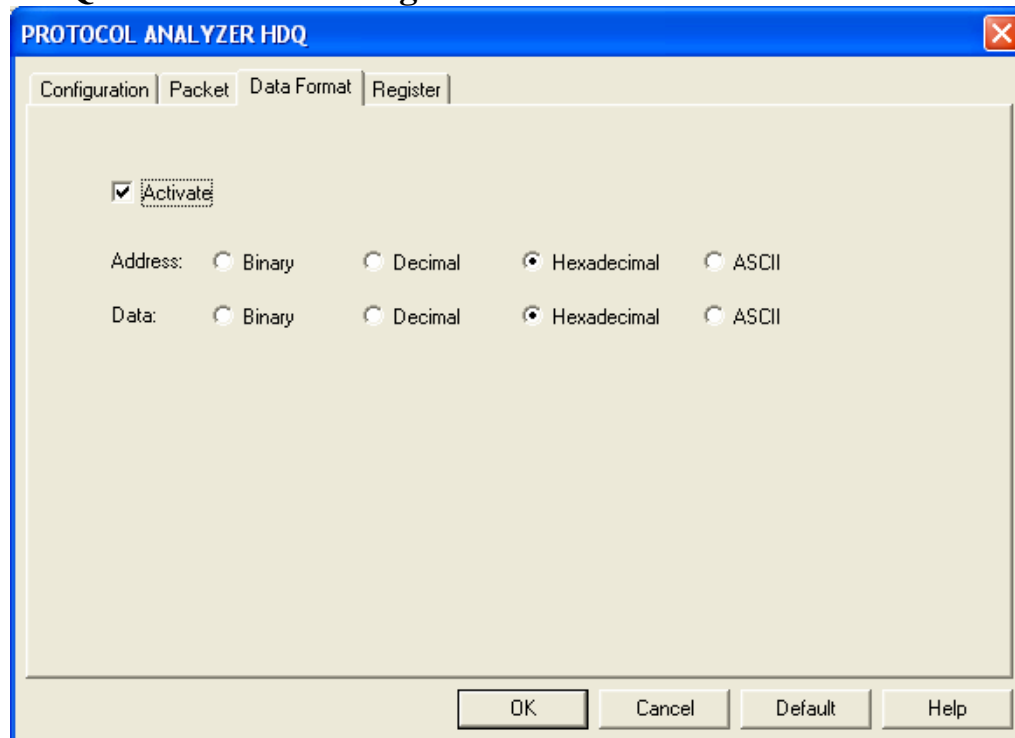
The color can be varied by users.

## HDQ Packet dialog box



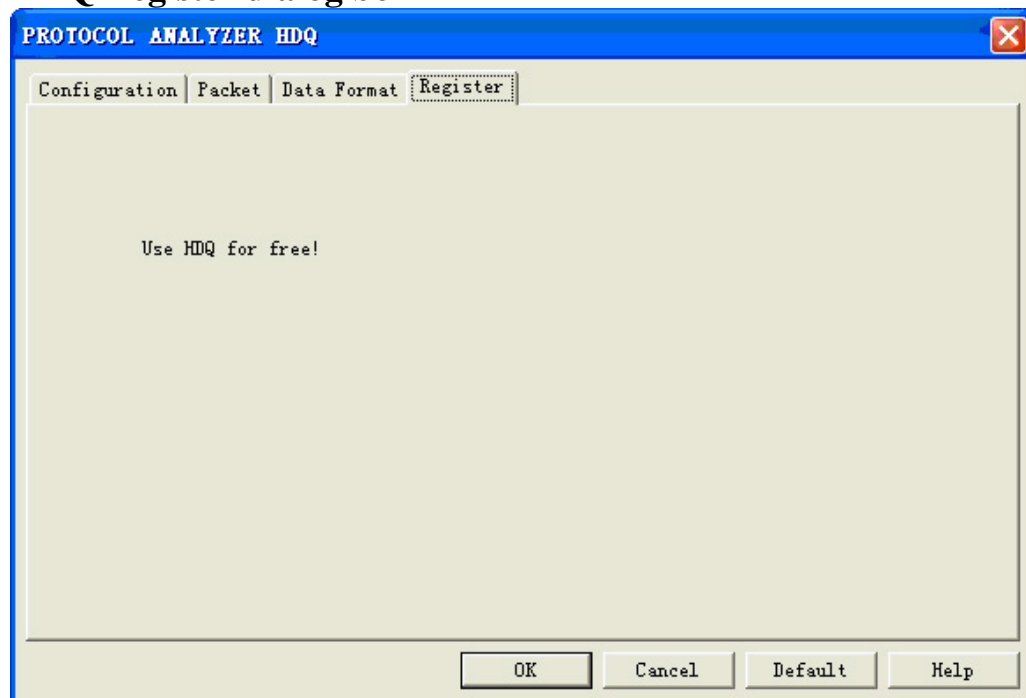
In the Packet dialog box, users can vary the color of items and set the item to be displayed.

## HDQ Data Format dialog box



Users can set the Data Format of the Address and Data 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.

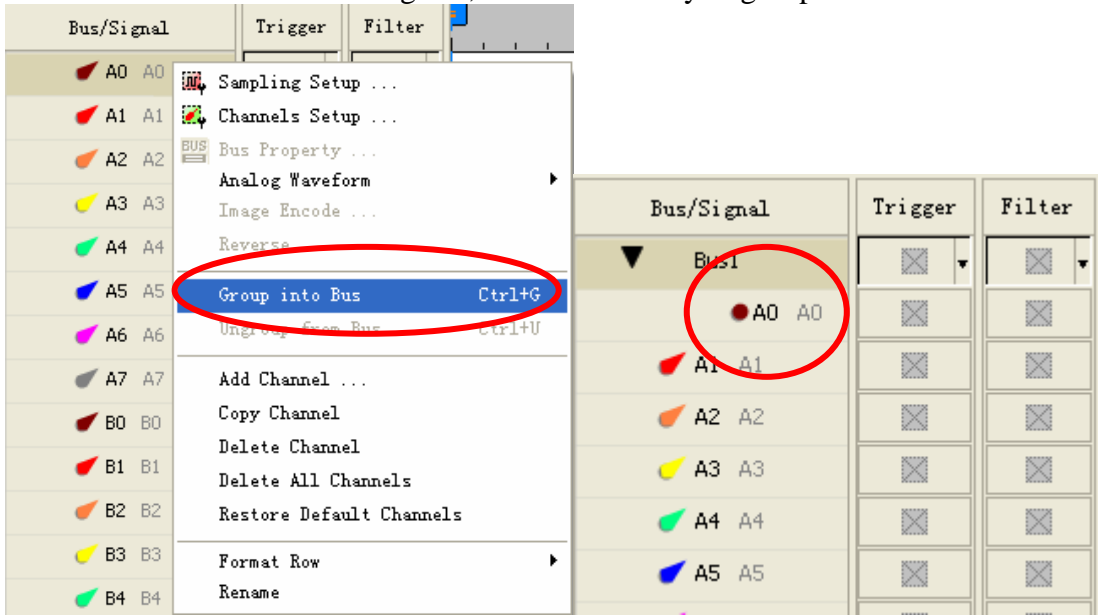
## HDQ Register dialog box



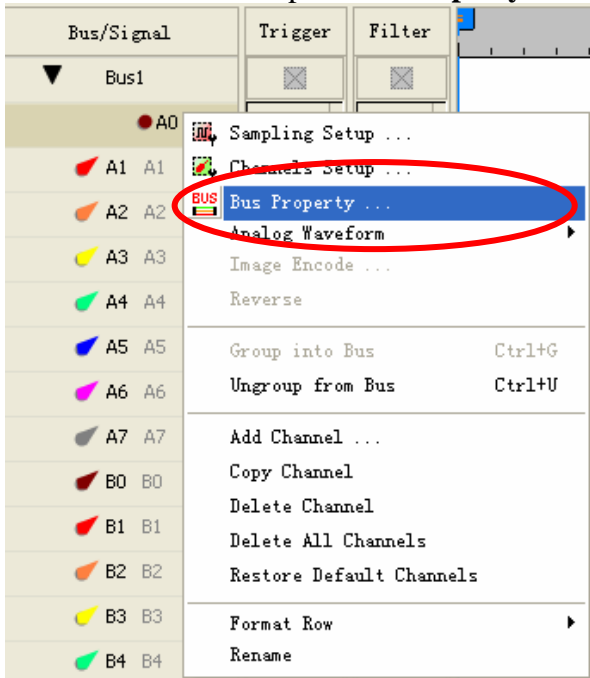


### 3. Operating Instructions

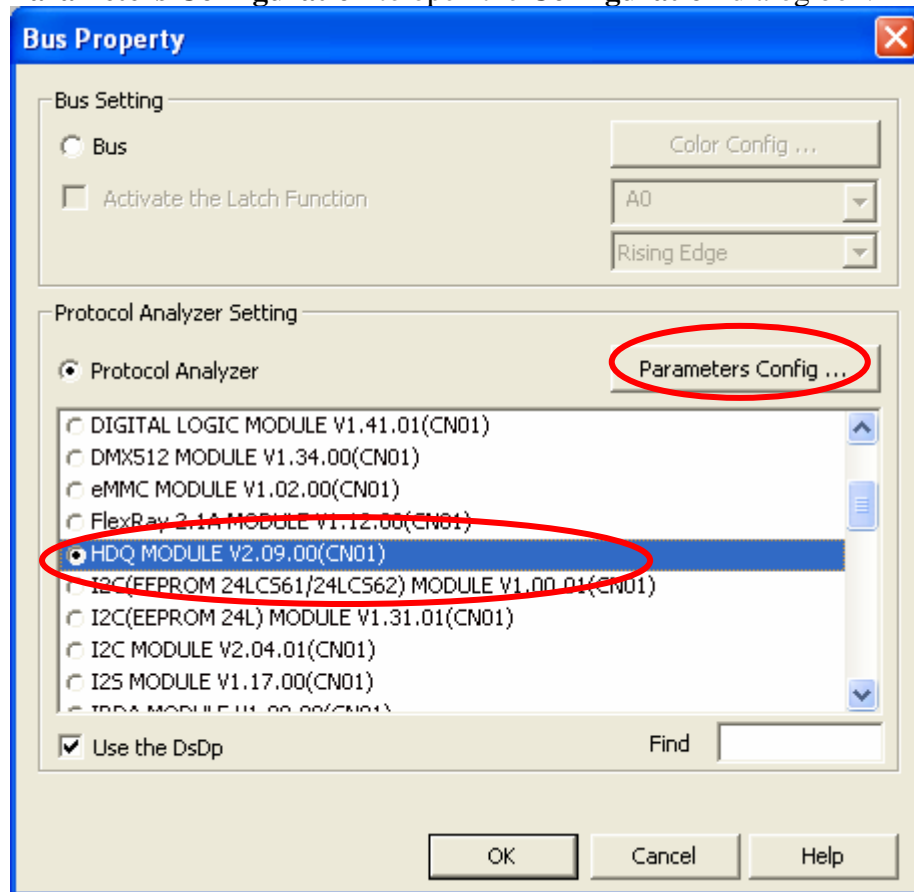
**STEP 1.** Group the unanalyzed channels into **Bus1** by pressing the **Right Key** on the mouse. HDQ only needs one channel to decode signals, so it is necessary to group one or more channels into a Bus.



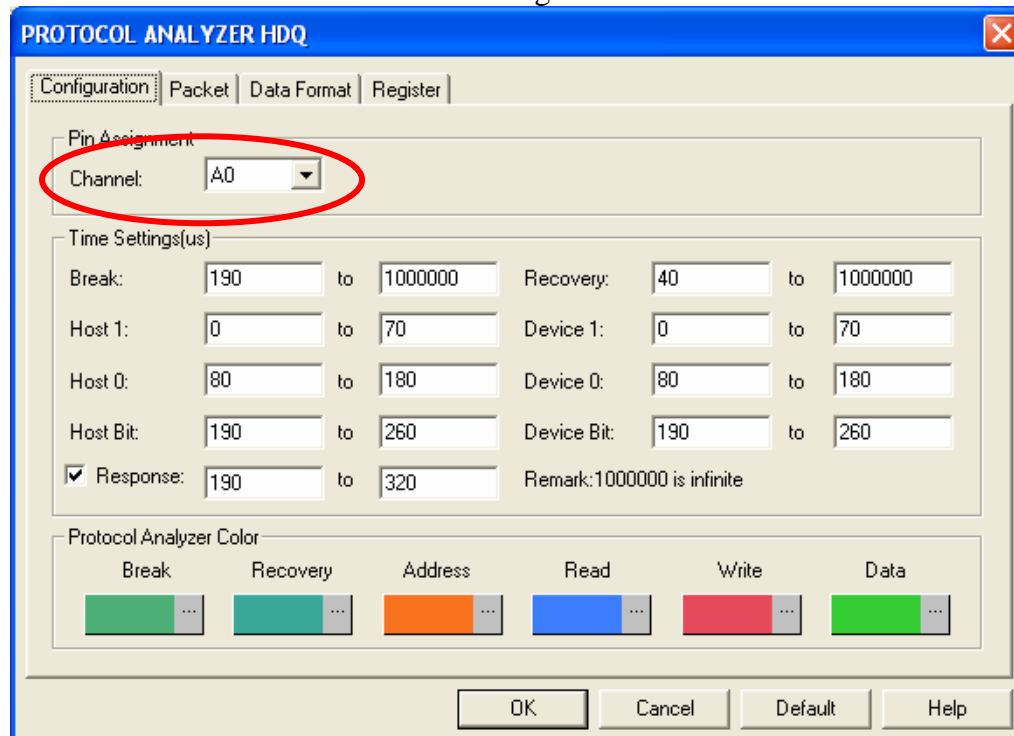
**STEP 2.** Select **Bus1**, and press **Right Key** on the mouse to list the menu, then press **Bus Property** or **Bus** bar on the toolbar to open **Bus Property** dialog box.



**STEP 3.** Select Protocol Analyzer, and then choose **HDQ MODULE V2.09.00(CN01)**. Next click **Parameters Configuration** to open the **Configuration** dialog box.



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



**STEP 5.** Set the value of the corresponding time range, whose unit is us.

**PROTOCOL ANALYZER HDQ**

Configuration | Packet | Data Format | Register

Pin Assignment  
Channel: A0

Time Settings(us)

Break:	190	to	1000000	Recovery:	40	to	1000000
Host 1:	0	to	70	Device 1:	0	to	70
Host 0:	80	to	180	Device 0:	80	to	180
Host Bit:	190	to	260	Device Bit:	190	to	260
<input checked="" type="checkbox"/> Response:	190	to	320	Remark: 1000000 is infinite			

Protocol Analyzer Color

Break	Recovery	Address	Read	Write	Data

OK Cancel Default Help

**STEP 6.** Set the Protocol Analyzer Color.

**PROTOCOL ANALYZER HDQ**

Configuration | Packet | Data Format | Register

Pin Assignment  
Channel: A0

Time Settings(us)

Break:	190	to	1000000	Recovery:	40	to	1000000
Host 1:	0	to	70	Device 1:	0	to	70
Host 0:	80	to	180	Device 0:	80	to	180
Host Bit:	190	to	260	Device Bit:	190	to	260
<input checked="" type="checkbox"/> Response:	190	to	320	Remark: 1000000 is infinite			

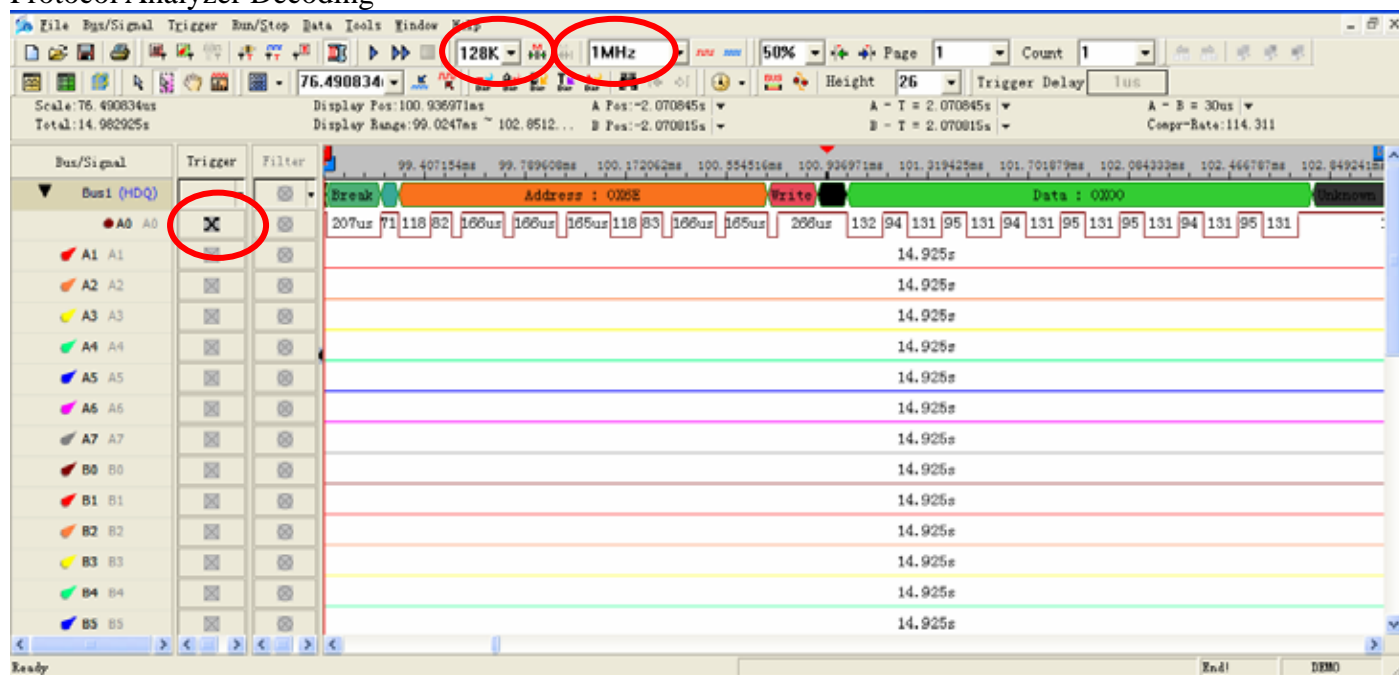
Protocol Analyzer Color

Break	Recovery	Address	Read	Write	Data

OK Cancel Default Help

**STEP 7.** 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 128K; the sampling frequency is 1MHz (the sampling frequency should be more than four times higher than the signal to be tested).

### Protocol Analyzer Decoding



### Packet List

