

# SPECIFICATION

**MODEL: 021-LAP-IRDA-M**

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

**VERSION:** V1.08

Approver		Check	Design
GM	PM		

Customer Confirm

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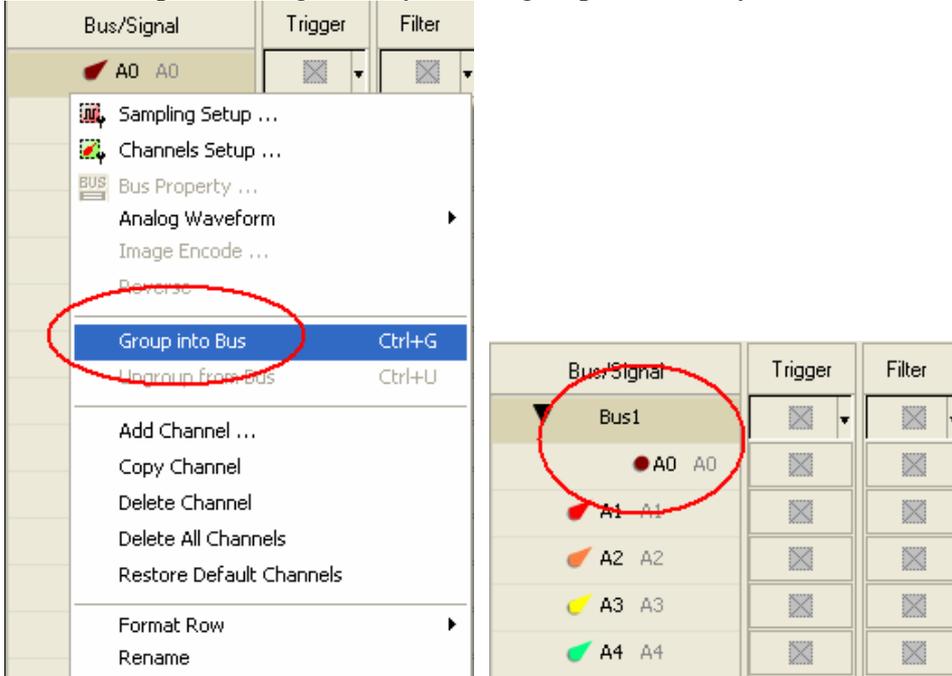
# 1 Software Register

Please register the software as the following steps:

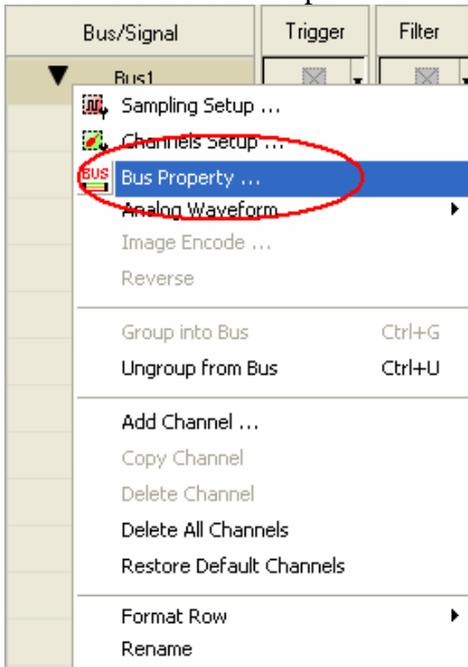
※ Remark1: The registration steps for all protocol analyzers are the same; you can complete the registration by following procedures. Following is an example on how to register the Protocol Analyzer BUS.

※ 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.

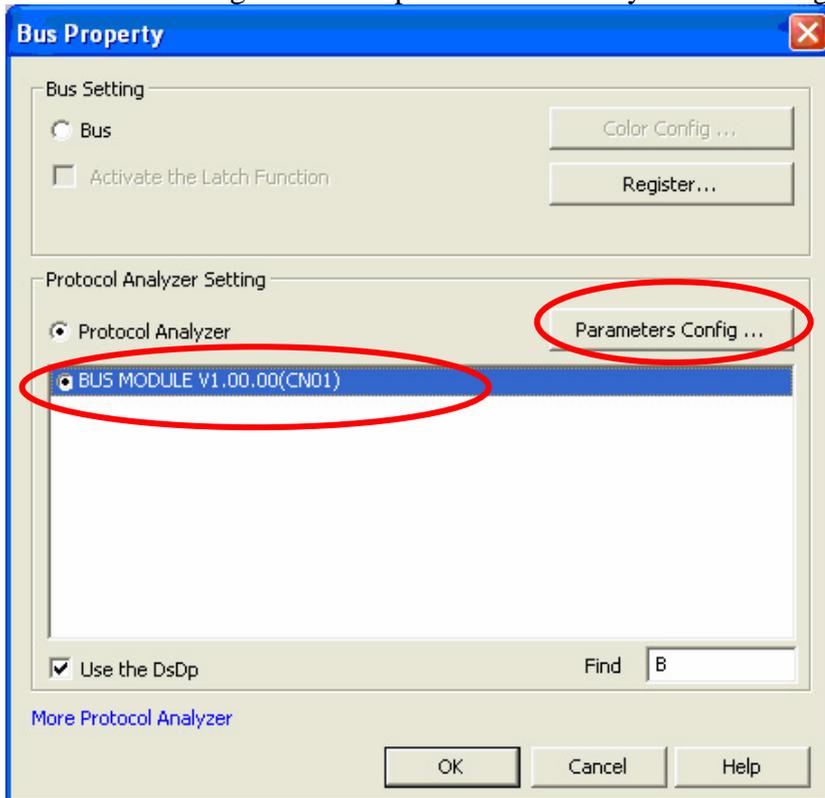
**STEP 1.** Open the Logic Analyzer and group the unanalyzed channels into **Bus1** by pressing the **Right Key**.



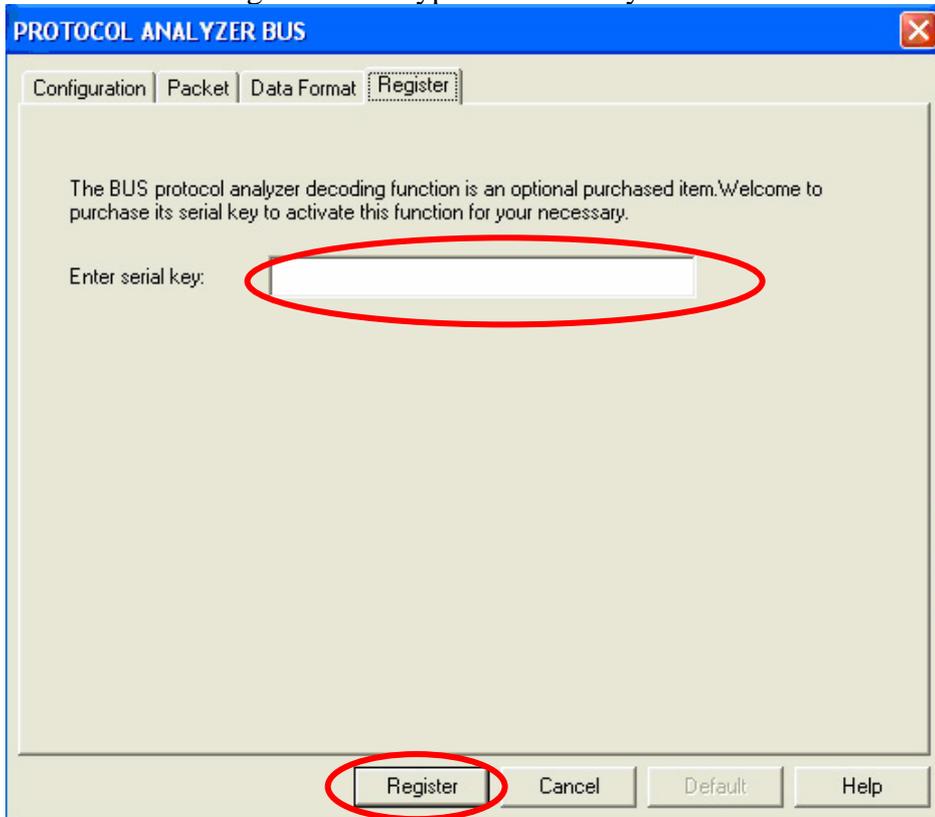
**STEP 2.** Select **Bus 1**, then press **Right Key** on the mouse to list the menu, then press **Bus Property** or **Bus** icon on the toolbar to open **Bus Property** dialog box.



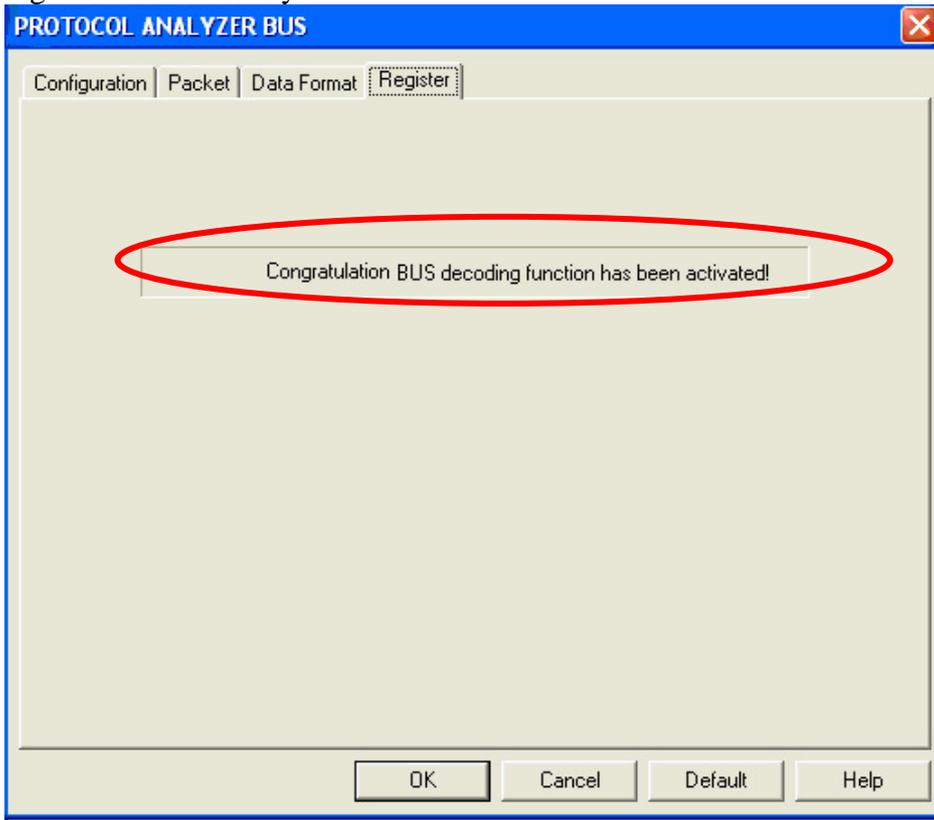
**STEP 3.** Select the Protocol Analyzer, and then choose **BUS MODULE V1.00.00 (CN01)**. Next click Parameters Configuration to open Protocol Analyzer Bus dialog box.



**STEP 4.** 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.

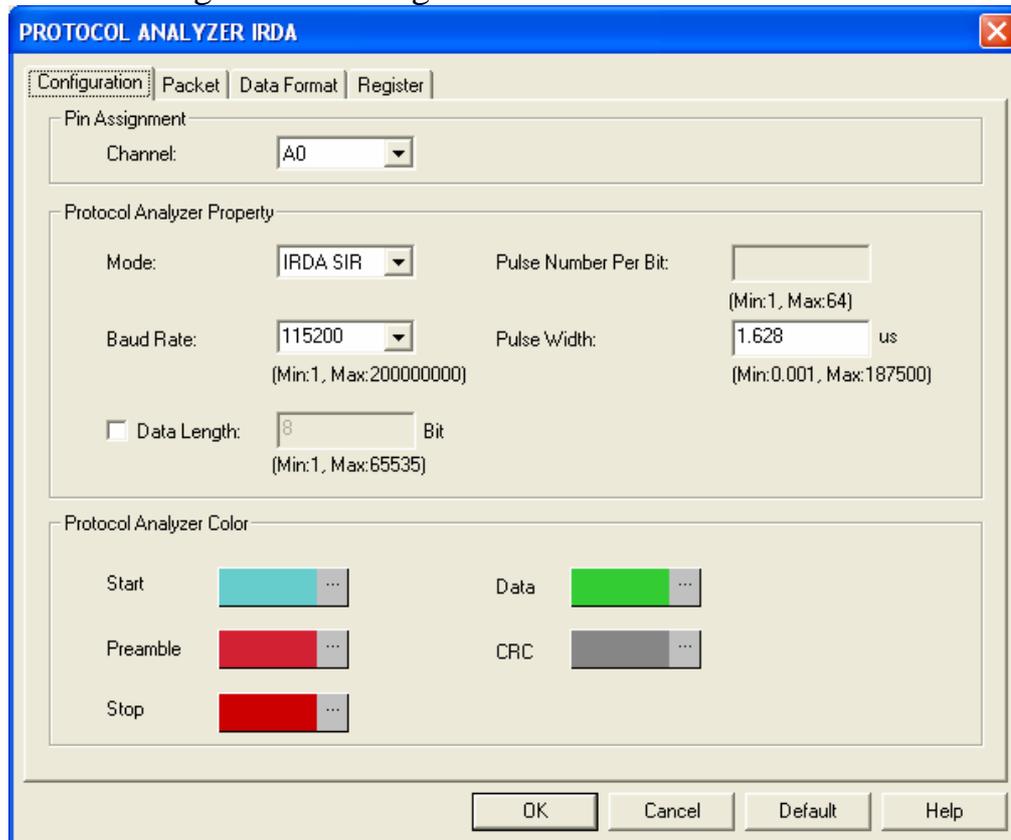


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## 2 User Interface

In the configuration, please refer to images below to select options of setting **IRDA**.

### IRDA Configuration Dialog Box



#### **Pin Assignment:**

**IRDA** only needs one channel to decode the signals.

#### **Protocol Analyzer Property:**

**Mode:** Set the Mode to IRDA SIR, ASK IR, IRDA HDLC or IRDA FIR, the default is IRDA SIR.

**Baud Rate:** The Baud Rate will be changed according to the different Modes.

In the IRDA SIR Mode, the Baud Rate is 115200bps by default;

In the ASK IR Mode, the Baud Rate is 57600bps by default;

In the IRDA HDLC Mode, the Baud Rate is 1152000bps by default;

In the IRDA FIR Mode, the Baud Rate is 4000000bps by default.

In addition, users can select the value from the pull-down menu or set the value in the range from 1 to 200000000bps.

**Data Length:** The option is not activated by default. When the Data Length is activated, the value can be set in the range from 1 to 65535Bit.

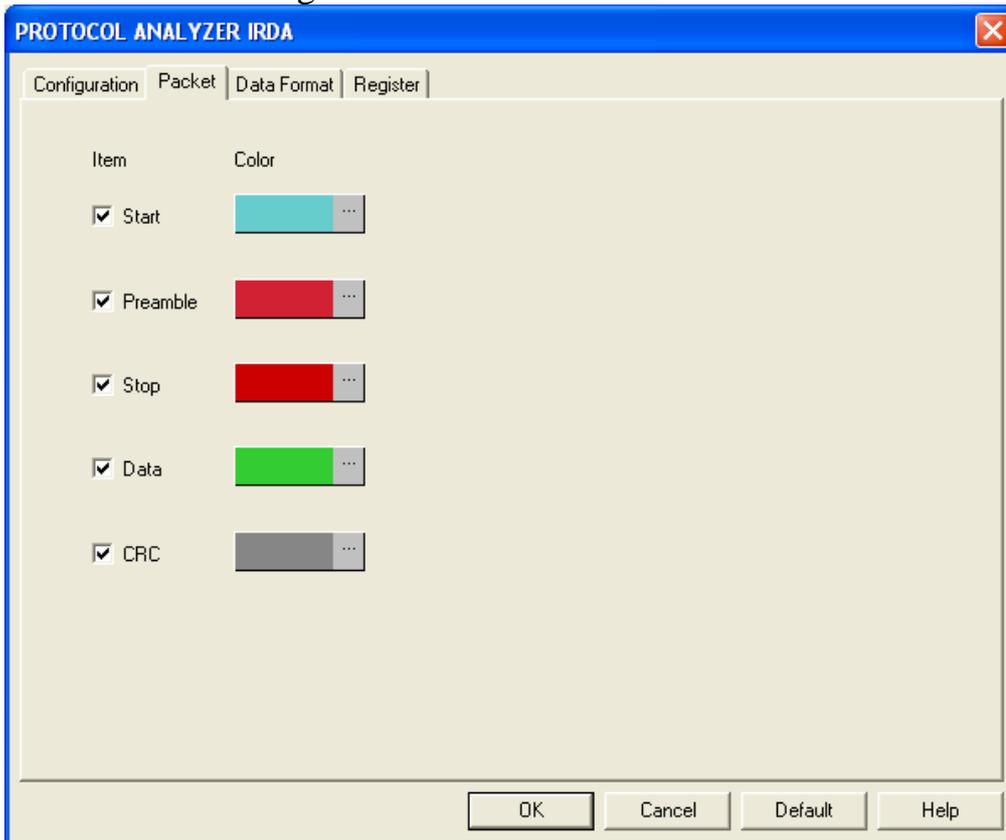
**Pulse Number Per Bit:** It is only available for the ASK IR Mode. When the ASK IR Mode is activated, the value of Pulse Number Per Bit can be set in the range from 1 to 64.

**Pulse Width:** The Pulse Width only can be set in the Modes, IRDA SIR, ASK IR and IRDA HDLC. The values of the Pulse Width can be set in the range from 0.001 to 187500us.

#### **Protocol Analyzer Color:**

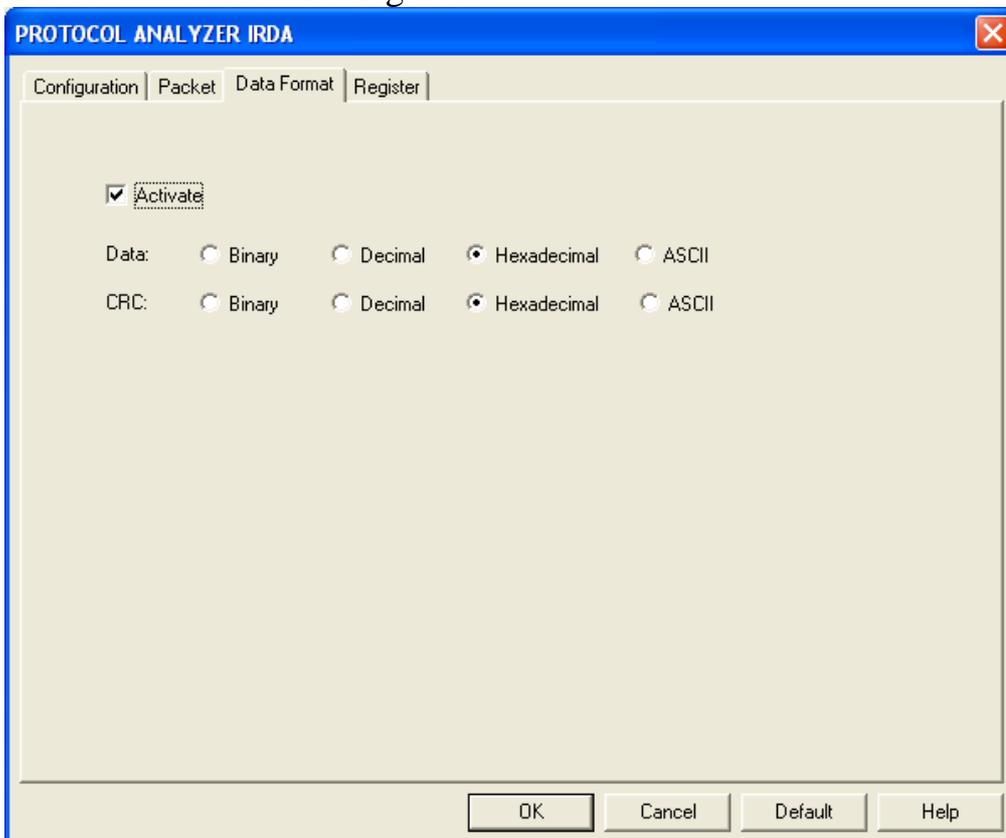
The color can be varied by users.

## IRDA Packet Dialog Box



In the Packet part, users can select the items to be displayed and their colors as their requirements.

## IRDA Data Format Dialog Box

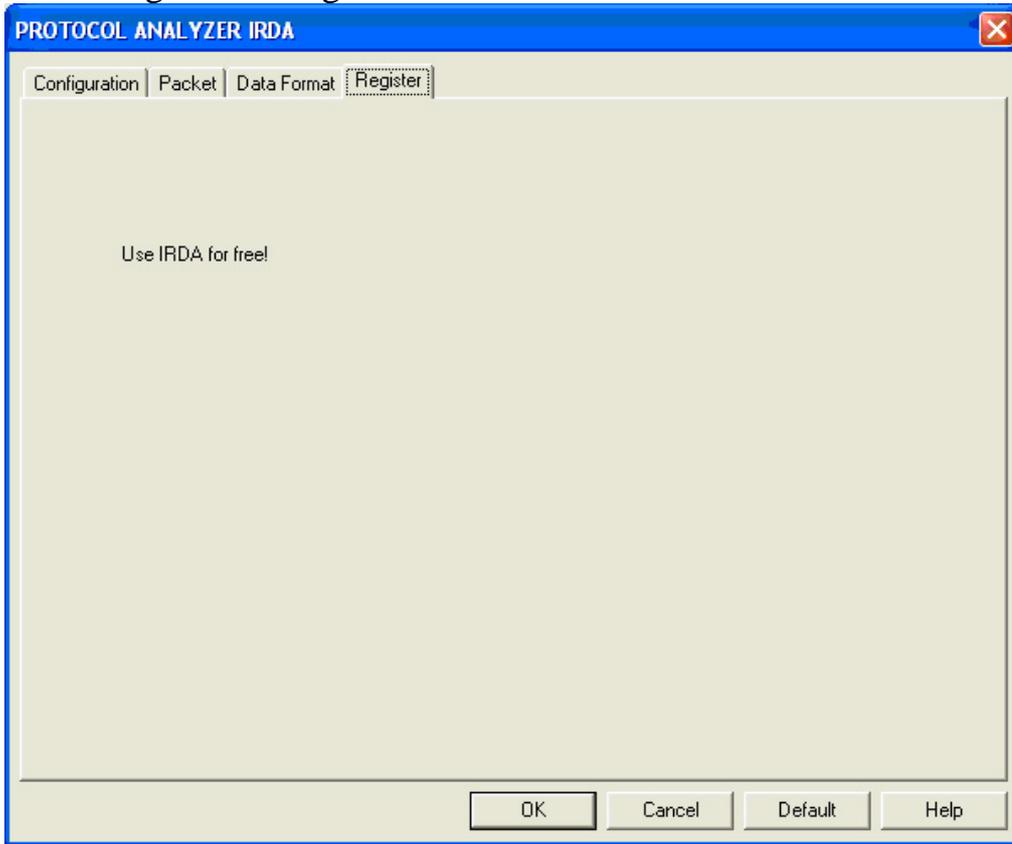


Users can set the Data Format of the CRC and Data as their requirements. When the option 'Activate' is selected, the data format is decided by the settings in the Protocol Analyzer, or by the settings in the main

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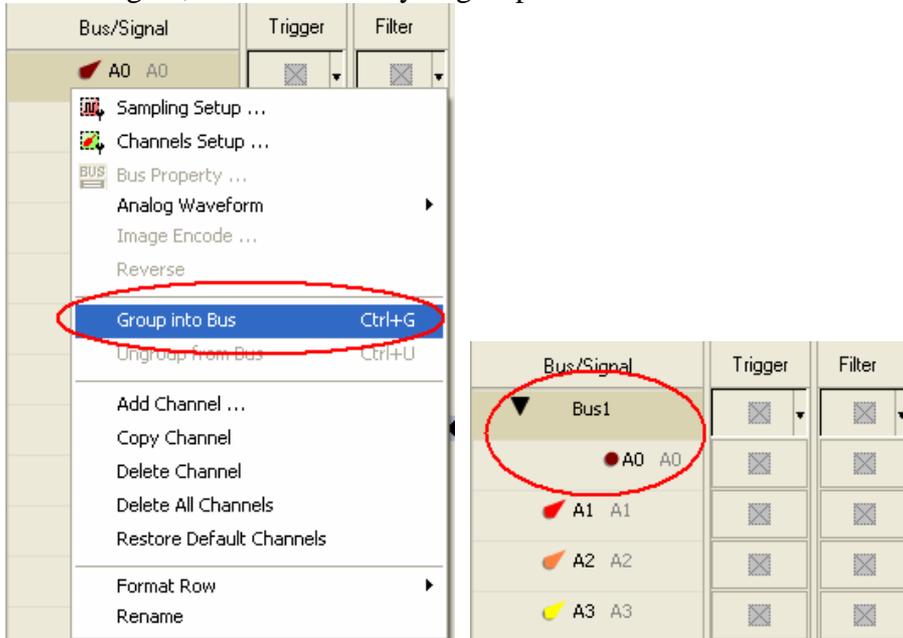
program.

## IRDA Register Dialog Box

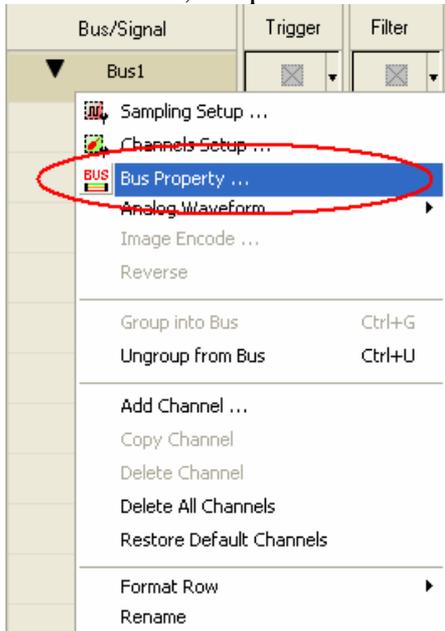


### 3 Operating Instructions

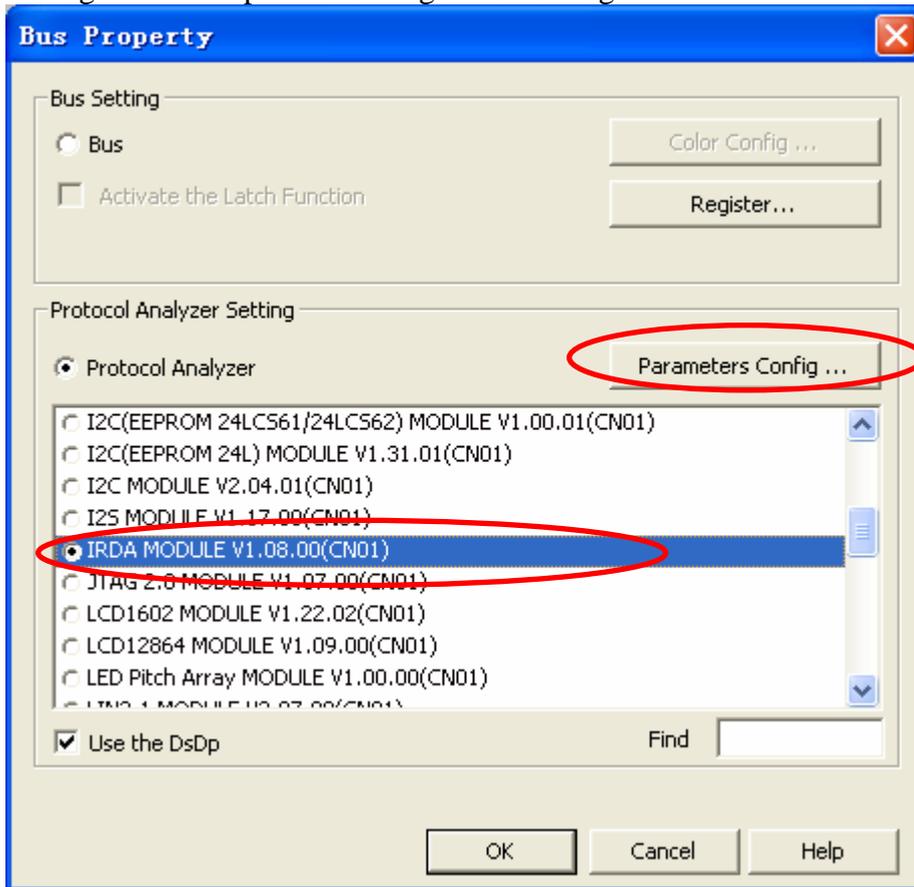
**STEP 1.** Group A0 into **Bus1** by pressing the **Right Key** on the mouse. IRDA needs at least one channel to decode signal, so it is necessary to group one or more channels into the Bus..



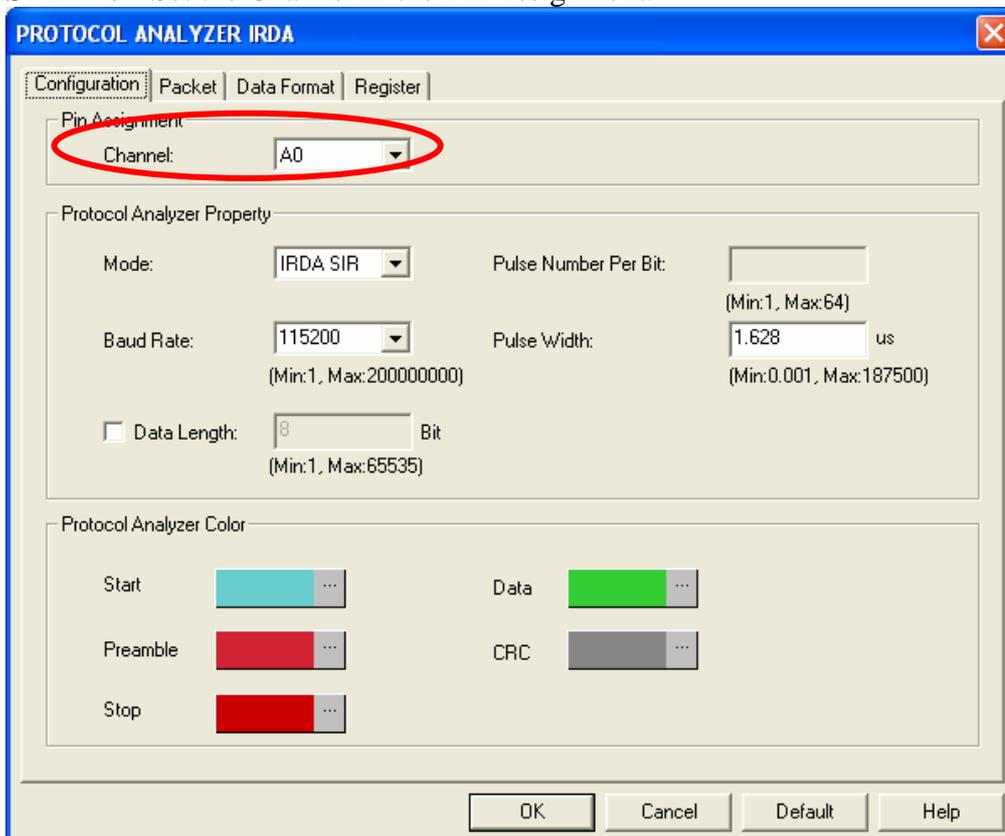
**STEP 2.** Select **Bus1**, press right key and select **Bus Property** from the popped menu, or click the **Bus** icon on the toolbar, to open the **Bus Property** dialog box.



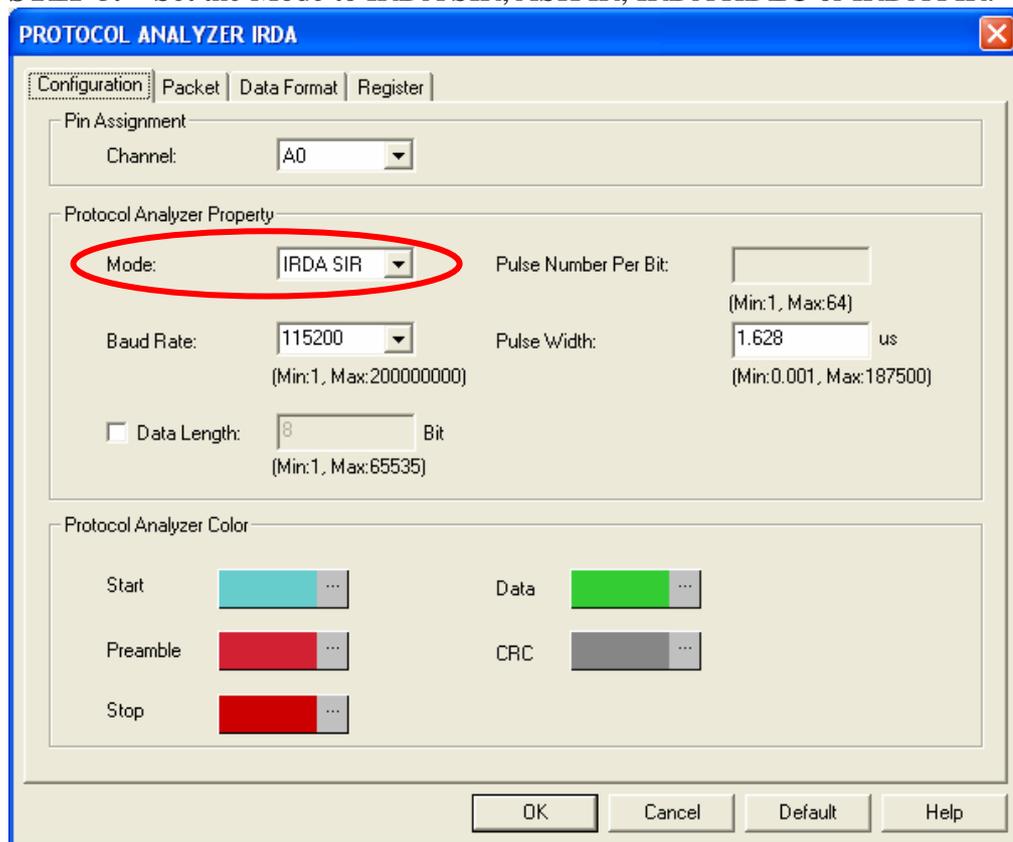
**STEP 3.** Select Protocol Analyzer, and select IRDA MODULE V1.08.00(CN01). Then click Parameters Configuration to open the Configuration dialog box.



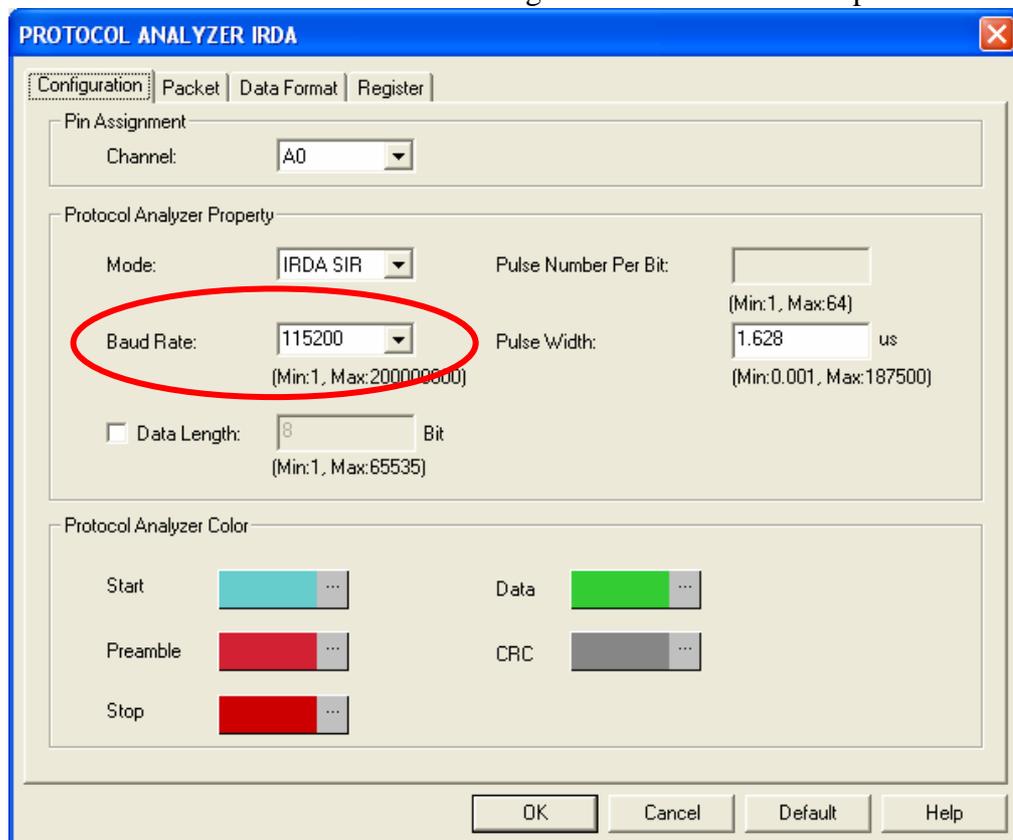
**STEP 4.** Set the Channel in the Pin Assignment.



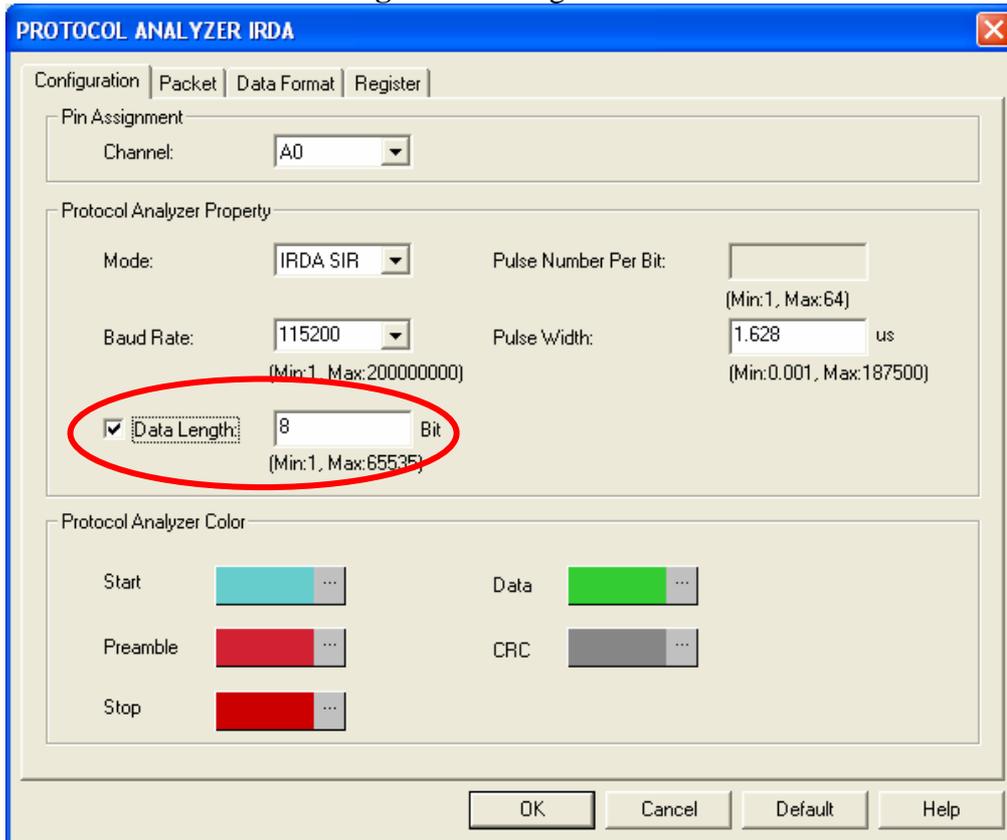
**STEP 5.** Set the Mode to IRDA SIR, ASK IR, IRDA HDLC or IRDA FIR.



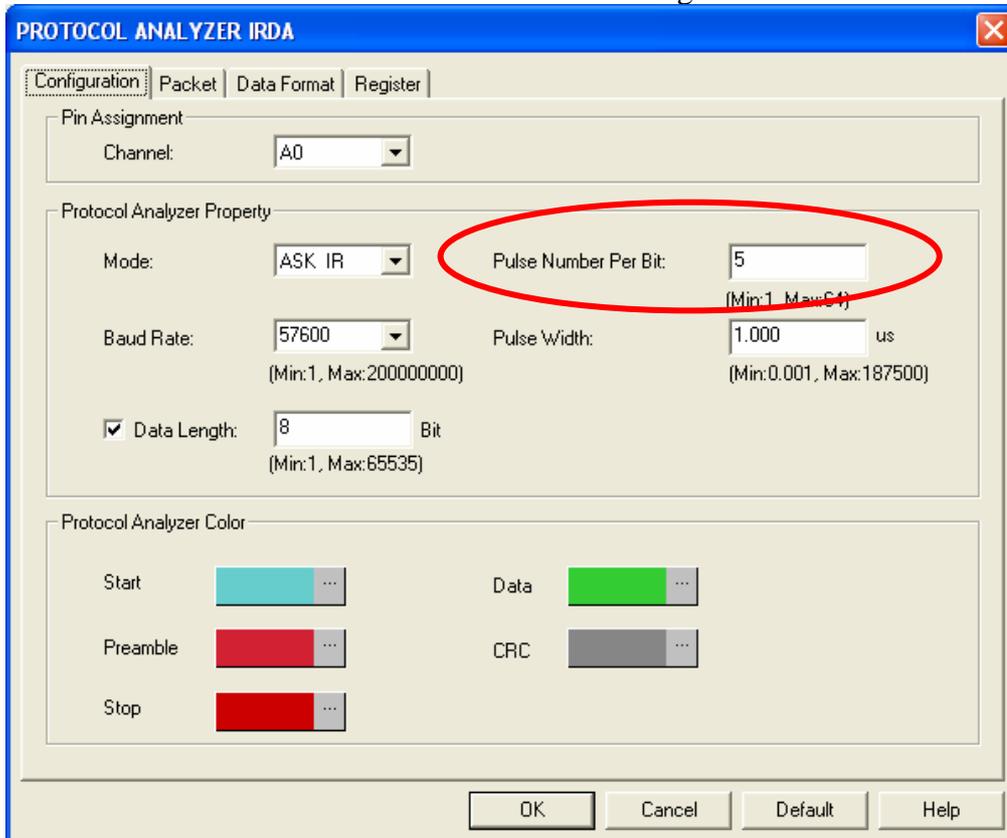
**STEP 6.** Set the **Baud Rate** in the range from 1 to 200000000bps.



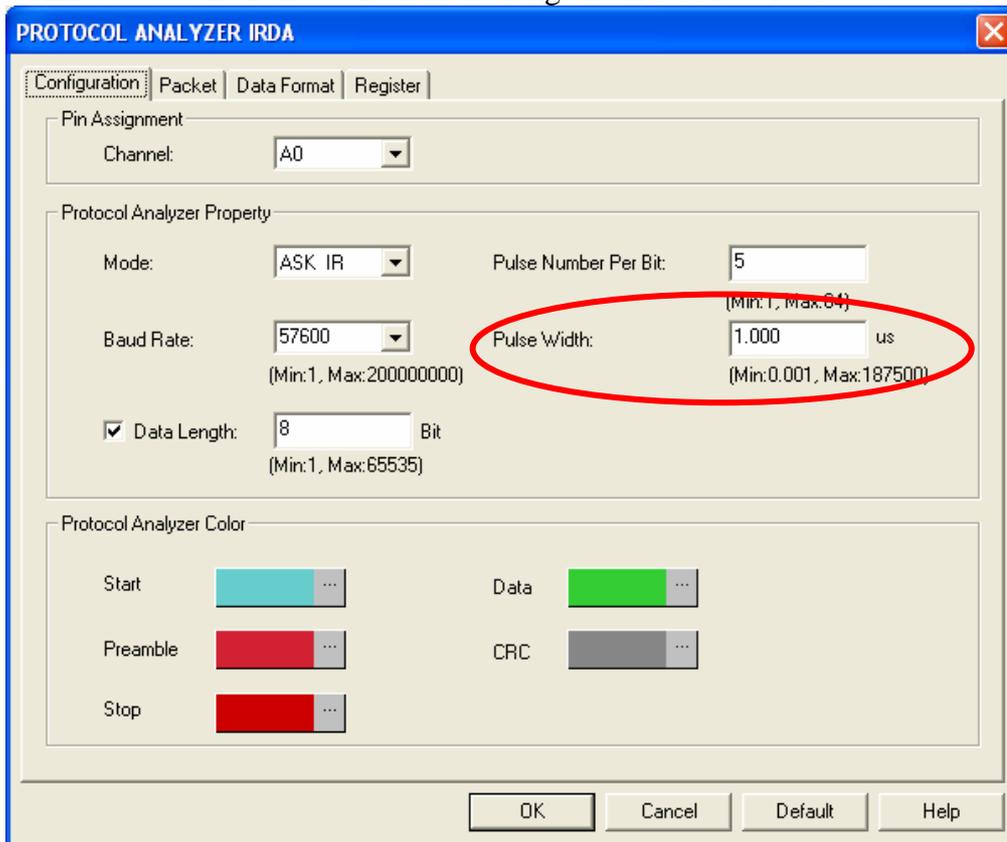
**STEP 7.** Set the **Data Length** in the range from 1 to 65535Bit.



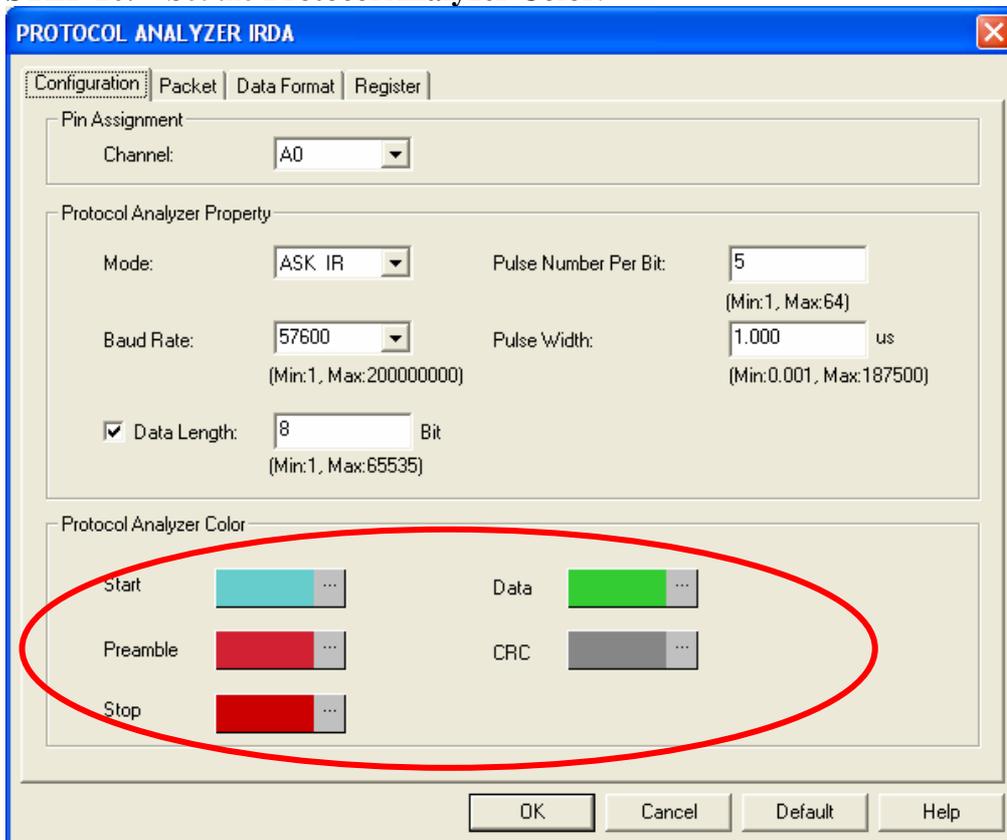
**STEP 8.** Set the **Pulse Number Per Bit** in the range from 1 to 64 in the ASK IR Mode.



**STEP 9.** Set the **Pulse Width** in the range from 0.001 to 187500us.

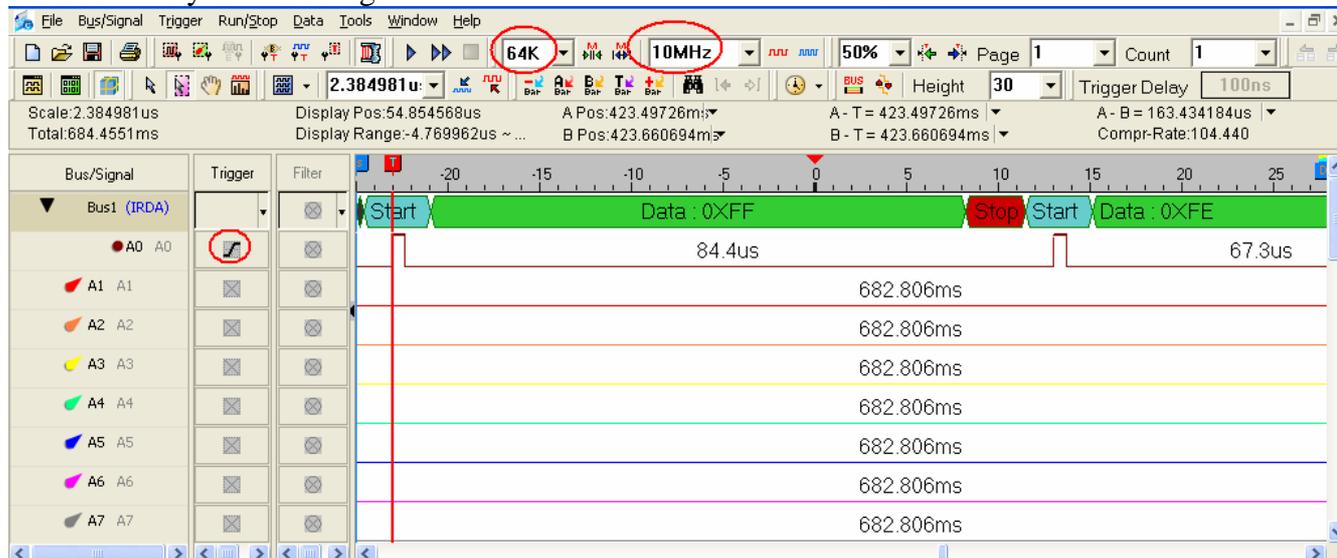


**STEP 10.** Set the **Protocol Analyzer Color**.



**STEP 11.** Following pictures show the completion of the protocol analyzer decoding and the packet list. The trigger condition is set as Rising Edge; the memory depth is 64K; the sampling frequency is 10MHz (the sampling frequency should be more than ten times higher than the signal to be tested).

### Protocol Analyzer Decoding



### Packet List

