孕龍科技股份有限公司
Zeroplus Technology Co., Ltd.

SPECIFICATION

MODEL: 014-LAP-LIN2.1-M

PART NO: _____

VERSION: V2.07

Approver		Check	Design
GM	PM		

Customer Confirm

*Please fax the file to Zeroplus Technology after signing.

2F, NO.123, Jian Ba Rd,
Chung Ho City, Taipei Hsian, R.O.C.

Tel:+886-2-66202225
Fax:+886-2-22234362

中和市建八路 123 號 2F
電話:886-2-66202225
傳真：886-2-22234362
www.zeroplus.com.tw

2F., No.123,Jian Ba Rd,
Chung Ho City, Taipei Hsien, R.O.C.
Tel: 886-2-66202225
Fax: 886-2-22234362

Content

中和市建八路 123 號 2F
電話:886-2-66202225
傳真：886-2-22234362
www.zeroplus.com.tw
2F., No.123,Jian Ba Rd,
Chung Ho City, Taipei Hsien, R.O.C.
Tel: 886-2-66202225
Fax: 886-2-22234362

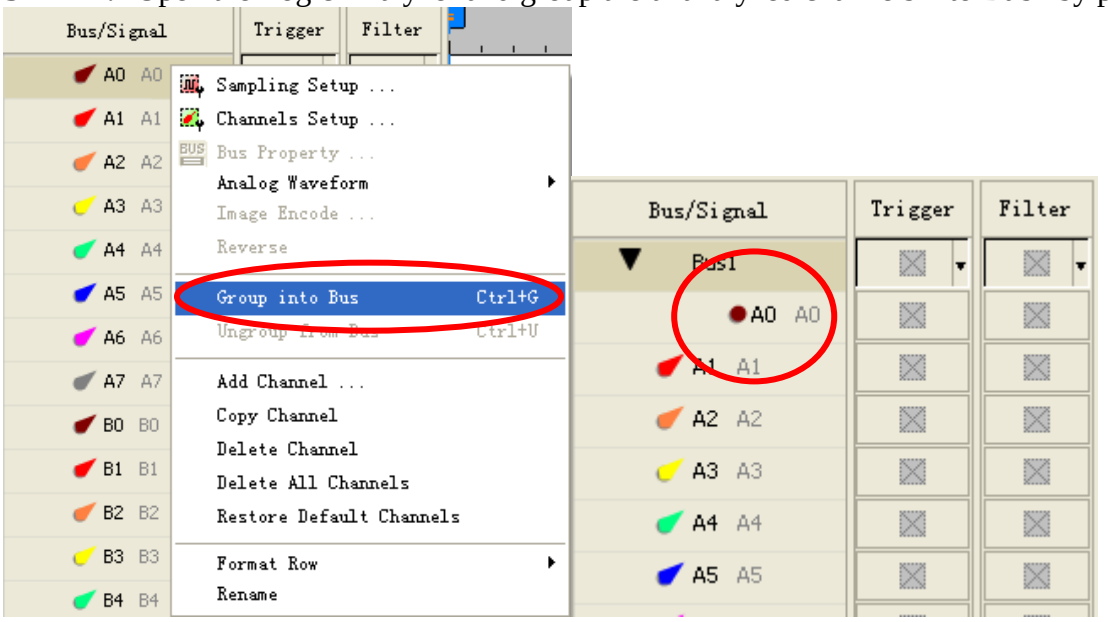
1. Software Register

Please register the software as the following steps:

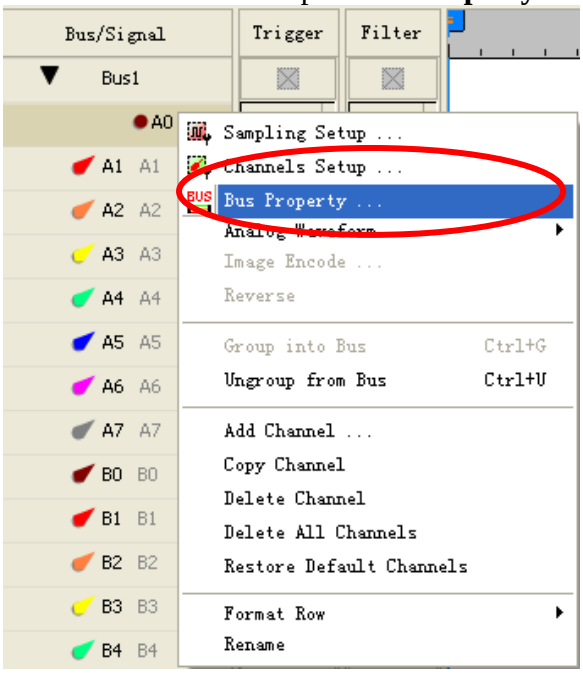
※ Remark1: The registration steps for all protocol analyzers are the same; you can complete the registration by following procedures. Following is an example on how to register the Protocol Analyzer BUS.

※ 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.**



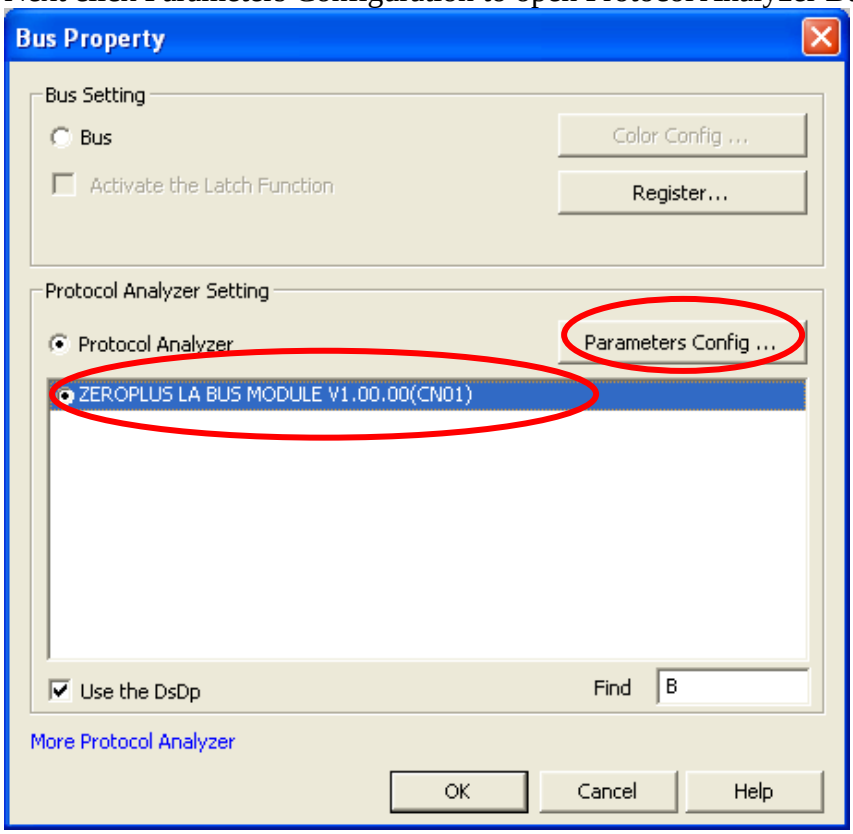
STEP 2. Select **Bus 1**, then press **Right Key** on the mouse to list the menu, then press **Bus Property** or **Bus** icon on the toolbar to open **Bus Property** dialog box.



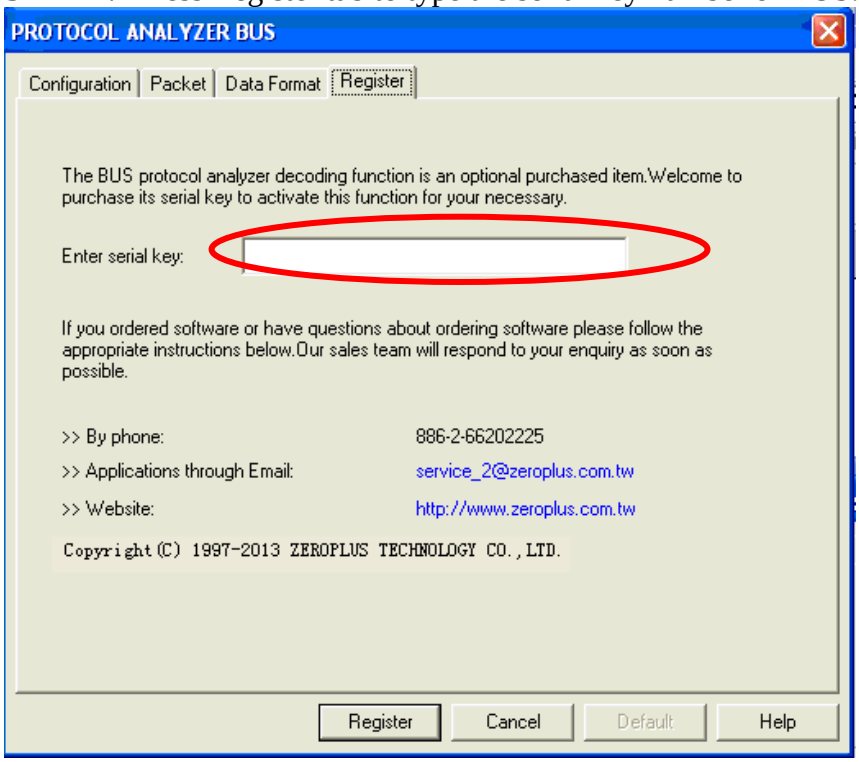
中和市建八路 123 號 2F
電話:886-2-66202225
傳真：886-2-22234362
www.zeroplus.com.tw

2F., No.123,Jian Ba Rd,
Chung Ho City, Taipei Hsien, R.O.C.
Tel: 886-2-66202225
Fax: 886-2-22234362

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

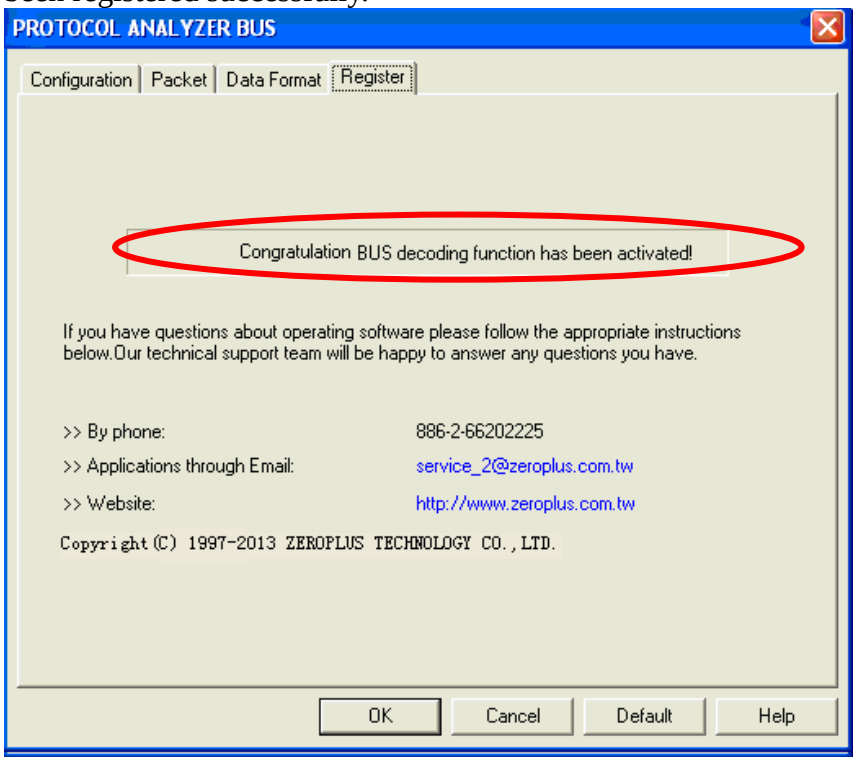


STEP 4. Press Register tab to type the serial key number of BUS. Then press Register.



中和市建八路 123 號 2F
電話:886-2-66202225
傳真：886-2-22234362
www.zeroplus.com.tw
2F., No.123,Jian Ba Rd,
Chung Ho City, Taipei Hsien, R.O.C.
Tel: 886-2-66202225
Fax: 886-2-22234362

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

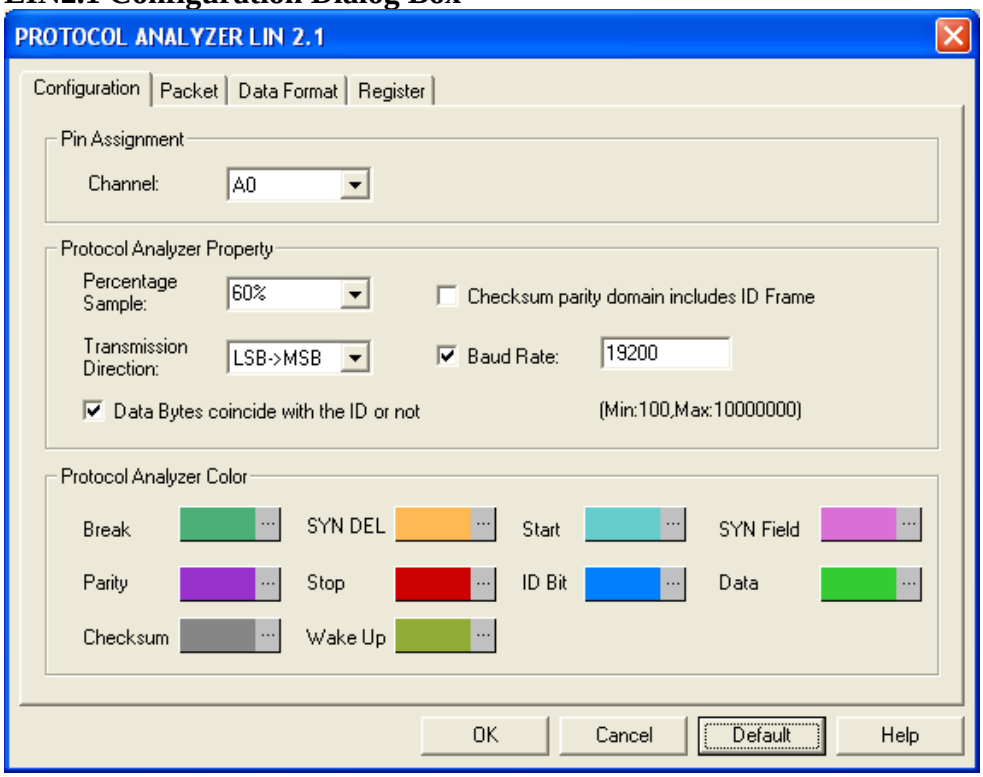


中和市建八路 123 號 2F
電話:886-2-66202225
傳真：886-2-22234362
www.zeroplus.com.tw
2F., No.123,Jian Ba Rd,
Chung Ho City, Taipei Hsien, R.O.C.
Tel: 886-2-66202225
Fax: 886-2-22234362

2. User Interface

Please refer to images below to do settings of setting **LIN2.1** Module.

LIN2.1 Configuration Dialog Box



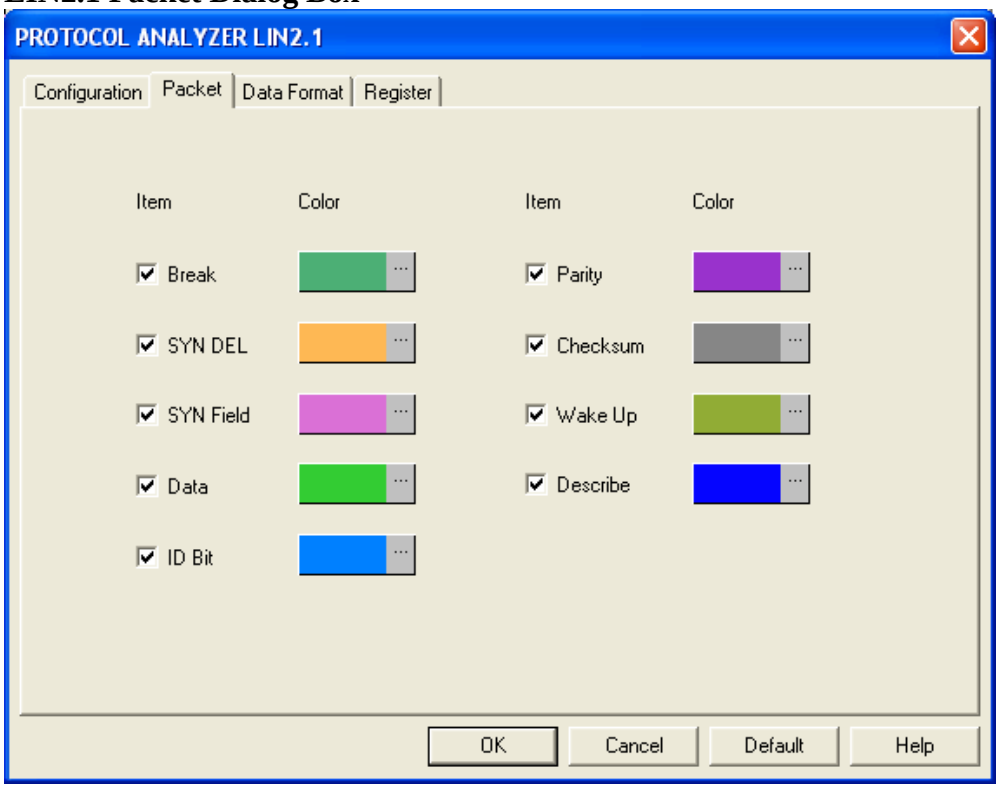
Pin Assignment:
LIN2.1 only needs one channel to decode signal, and it is A0 by default.

Protocol Analyzer Property:
Percentage Sample: It can be set in the range between 20% and 80%, and it is 60% by default.
Transmission Direction: It can be set as MSB->LSB or LSB->MSB, and it is LSB->MSB by default.
Data Bytes coincide with the ID or not: When the option is selected, it means that the data bytes are related to the ID and the corresponding data bytes can be decoded; the option is activated by default.
Checksum parity domain includes ID Frame: When it is activated, the Checksum is valid. The option is not activated by default.
Baud Rate: When the Baud Rate is selected, the I/O signal will be calibrated. The calculation method is that 1/ Baud Rate equals 1 T (synbit/8）. Users can input a value in the range between 100 and 10000000bps.

Protocol Analyzer Color:
The color can be varied by users.

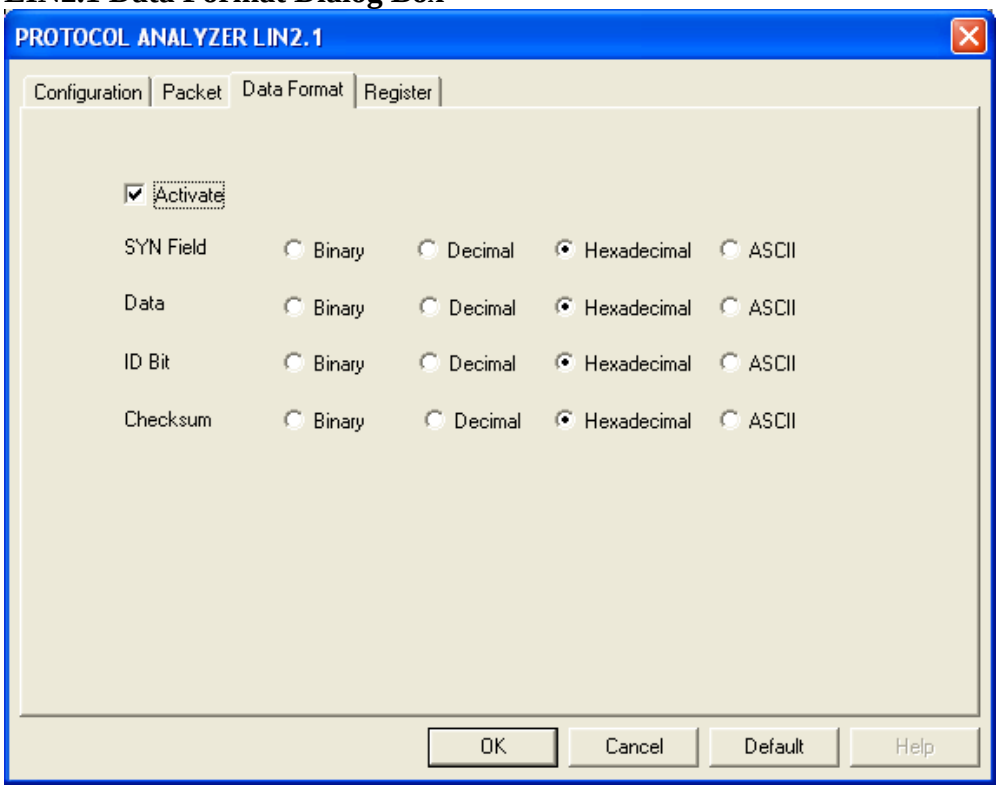
中和市建八路 123 號 2F
電話:886-2-66202225
傳真：886-2-22234362
www.zeroplus.com.tw
2F., No.123,Jian Ba Rd,
Chung Ho City, Taipei Hsien, R.O.C.
Tel: 886-2-66202225
Fax: 886-2-22234362

LIN2.1 Packet Dialog Box



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

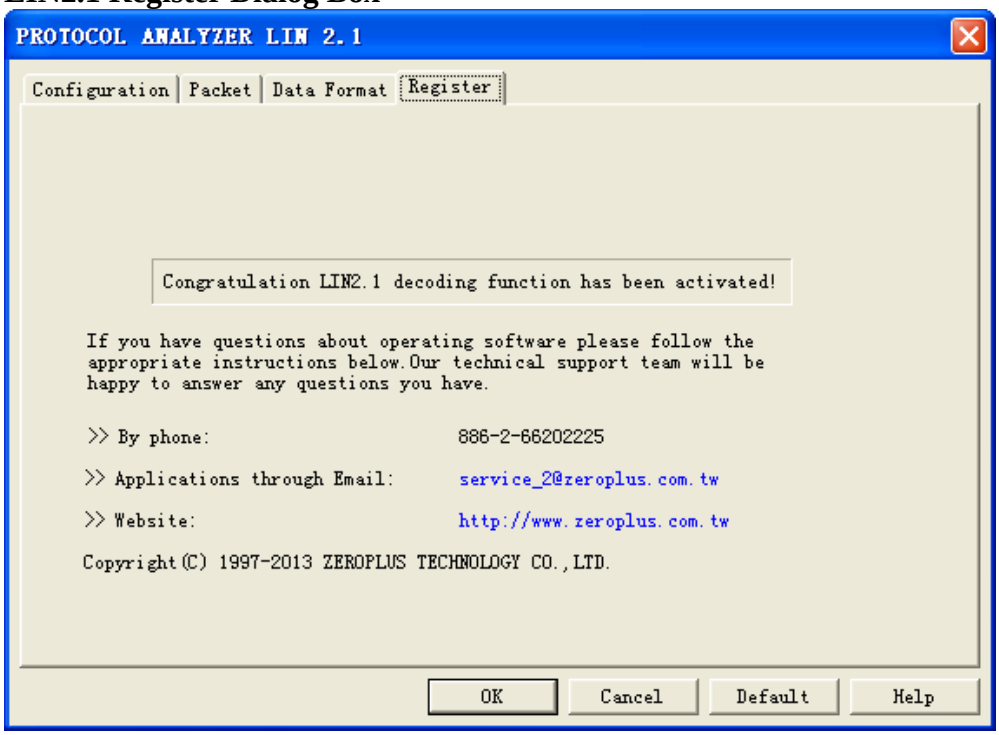
LIN2.1 Data Format Dialog Box



Users can set the Data Format of the Data as their requirements. The items (SYN Field, Data, ID Bit and Checksum) can be set as Binary, Decimal, Hexadecimal or ASCII (Hexadecimal by default). When selecting the option “Activate”, the format is decided by the settings in the Protocol Analyzer; when not selecting the option “ Activate”, the format is decided by the settings in the main program.

中和市建八路 123 號 2F
電話:886-2-66202225
傳真：886-2-22234362
www.zeroplus.com.tw
2F., No.123,Jian Ba Rd,
Chung Ho City, Taipei Hsien, R.O.C.
Tel: 886-2-66202225
Fax: 886-2-22234362

LIN2.1 Register Dialog Box



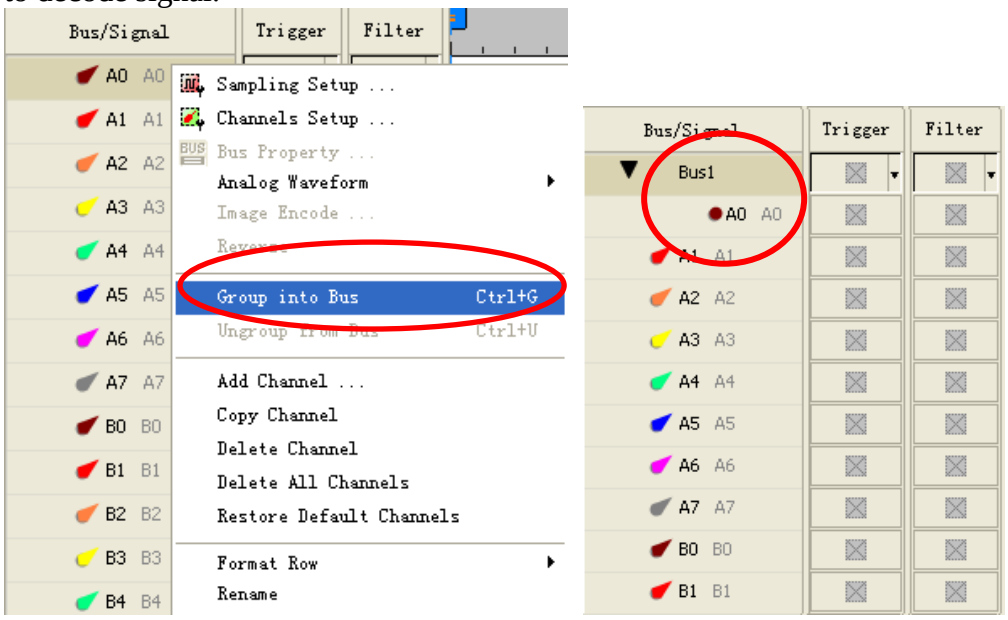
There is written Zeroplus company information. If you have any questions about software operations, you can contact Zeroplus by Telephone or Email.

中和市建八路 123 號 2F
電話:886-2-66202225
傳真：886-2-22234362
www.zeroplus.com.tw

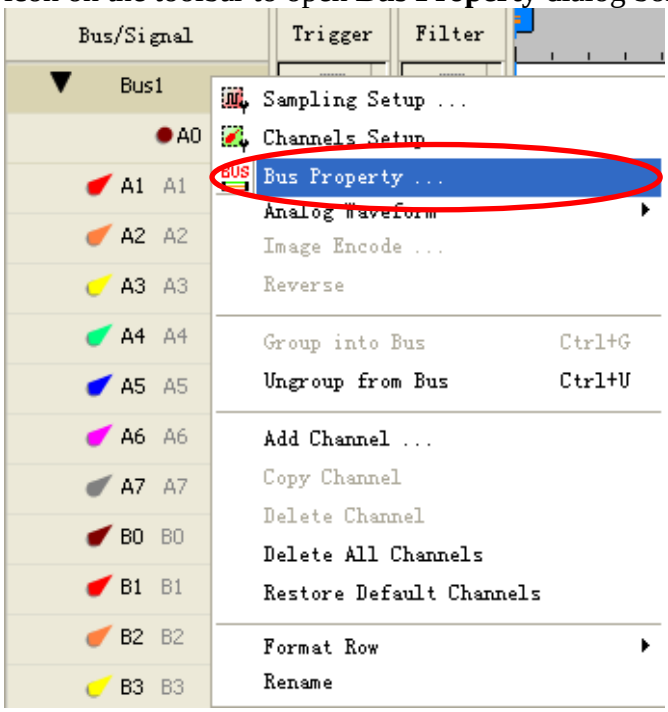
2F., No.123,Jian Ba Rd,
Chung Ho City, Taipei Hsien, R.O.C.
Tel: 886-2-66202225
Fax: 886-2-22234362

3. Operating Instructions

STEP 1. Group A0 into **Bus1** by pressing the **Right Key** on the mouse. LINK2.1 only needs one channel to decode signal.

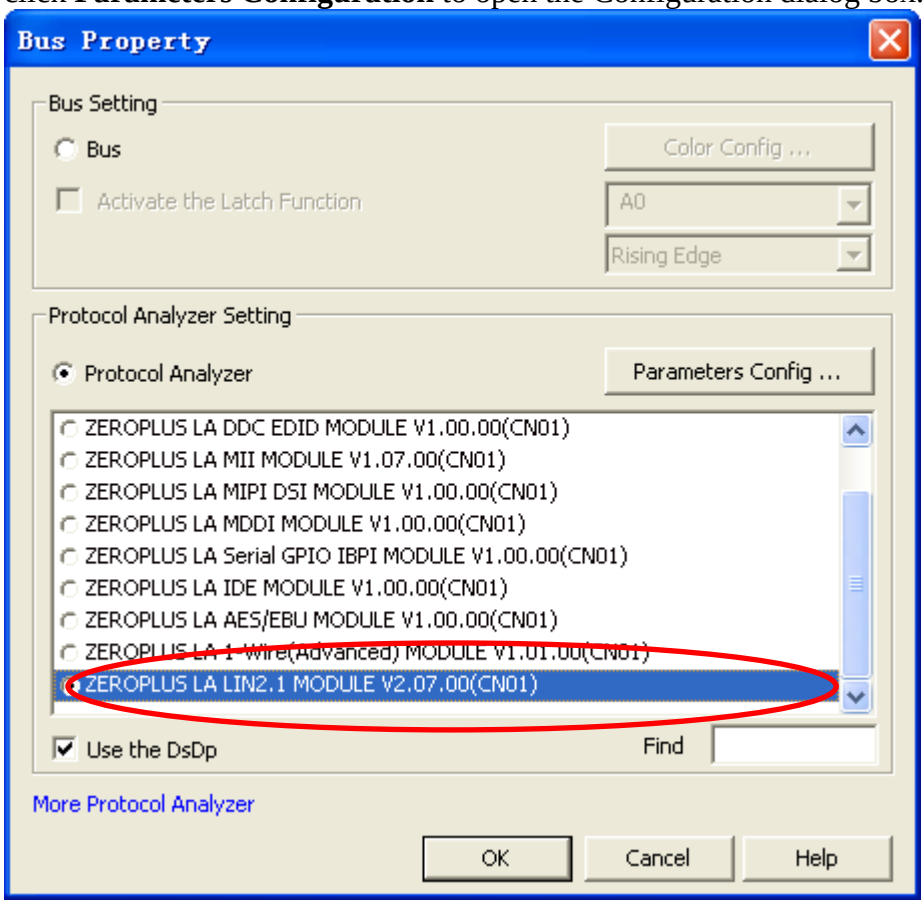


STEP 2. Select **Bus1**, and press **Right Key** on the mouse to list the menu, then press **Bus Property** or **Bus** icon on the toolbar to open **Bus Property** dialog box.

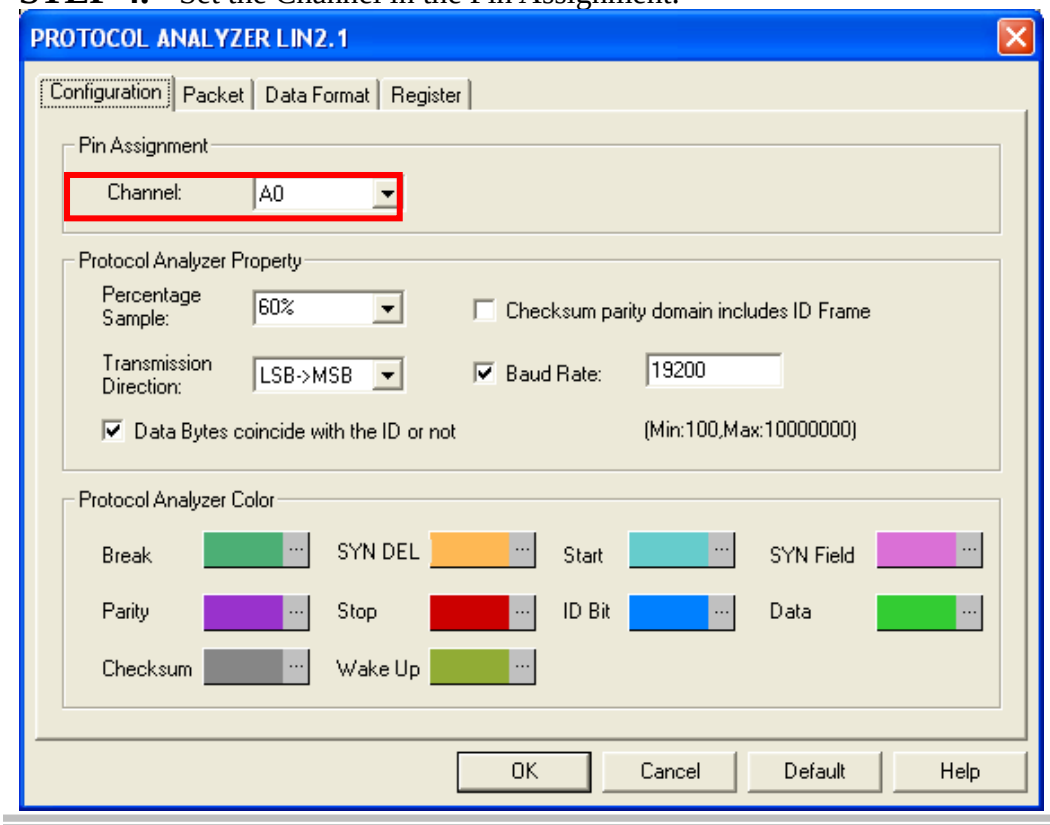


中和市建八路 123 號 2F
電話:886-2-66202225
傳真：886-2-22234362
www.zeroplus.com.tw
2F., No.123,Jian Ba Rd,
Chung Ho City, Taipei Hsien, R.O.C.
Tel: 886-2-66202225
Fax: 886-2-22234362

STEP 3. Select Protocol Analyzer, and select **ZEROPLUS LA LIN2.1 MODULE V2.07.00(CN01)**. Then click **Parameters Configuration** to open the Configuration dialog box.

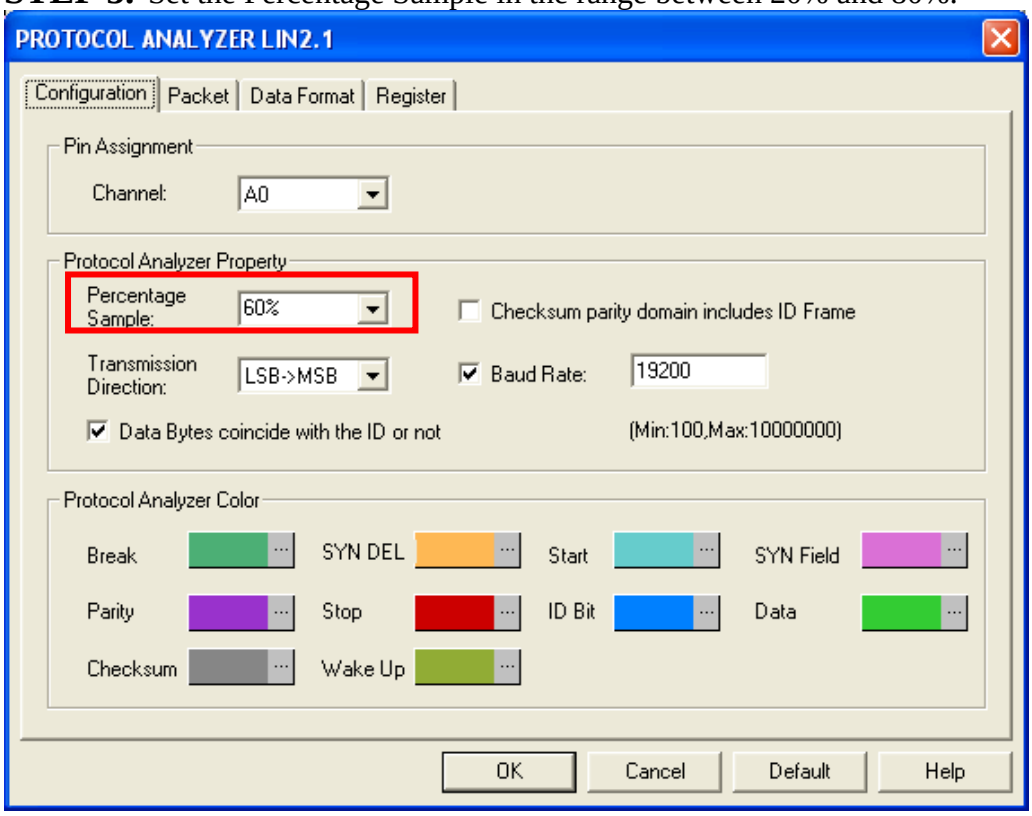


STEP 4. Set the Channel in the Pin Assignment.

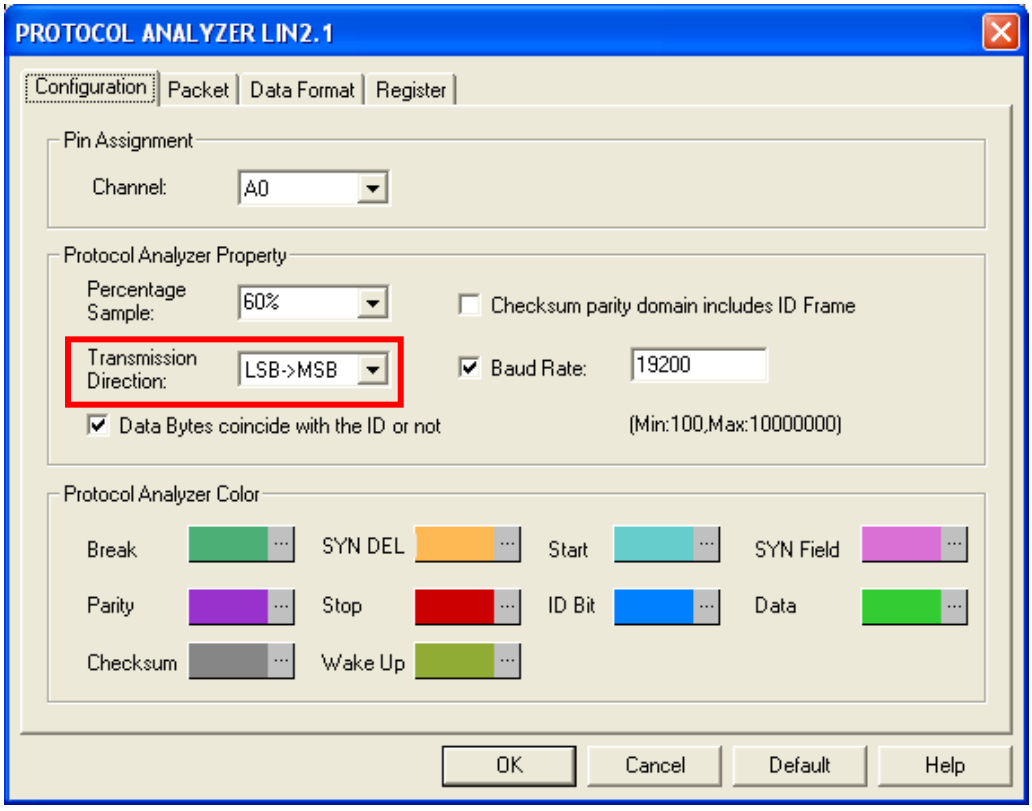


中和市建八路 123 號 2F
電話:886-2-66202225
傳真：886-2-22234362
www.zeroplus.com.tw
2F., No.123,Jian Ba Rd,
Chung Ho City, Taipei Hsien, R.O.C.
Tel: 886-2-66202225
Fax: 886-2-22234362

STEP 5. Set the Percentage Sample in the range between 20% and 80%.

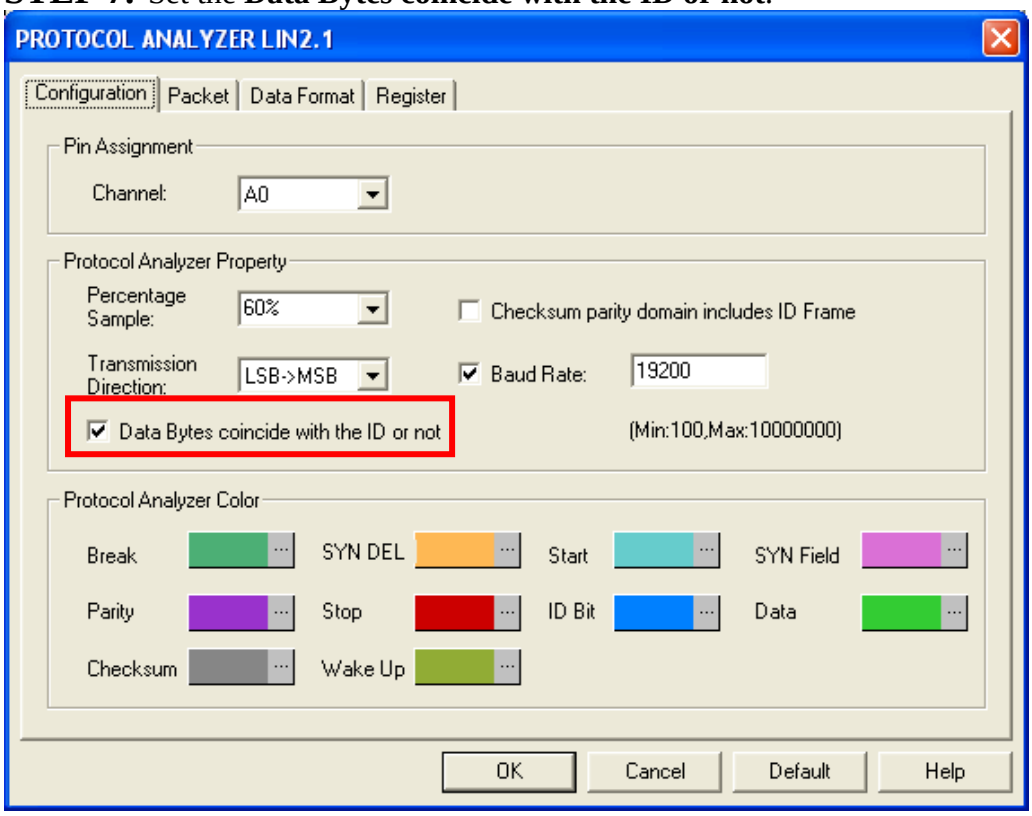


STEP 6. Set the Transmission Direction as MSB->LSB or LSB->MSB.

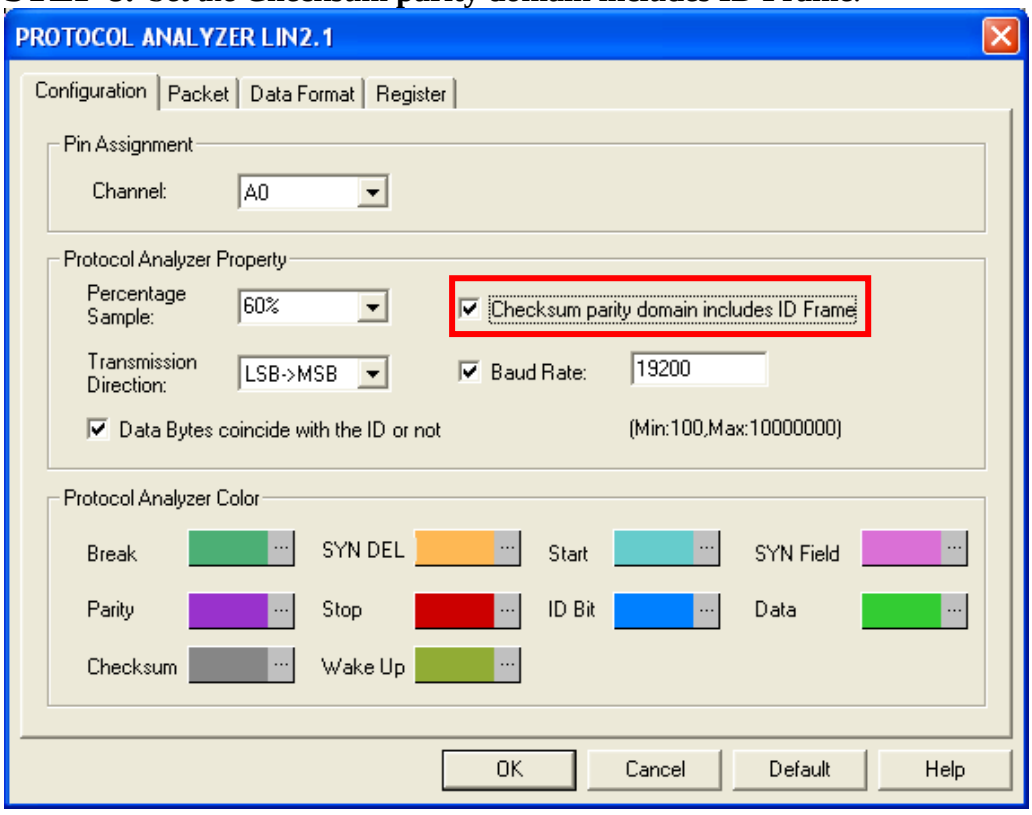


中和市建八路 123 號 2F
電話:886-2-66202225
傳真：886-2-22234362
www.zeroplus.com.tw
2F., No.123,Jian Ba Rd,
Chung Ho City, Taipei Hsien, R.O.C.
Tel: 886-2-66202225
Fax: 886-2-22234362

STEP 7. Set the **Data Bytes coincide with the ID or not**.

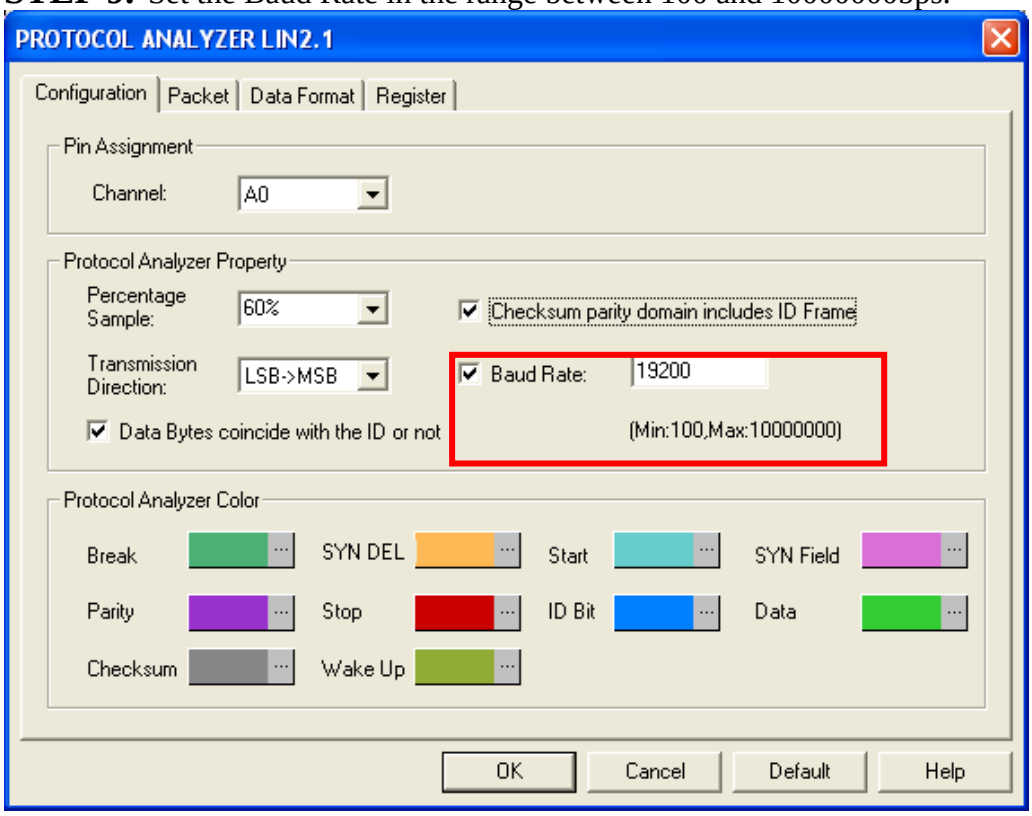


STEP 8. Set the **Checksum parity domain includes ID Frame**.

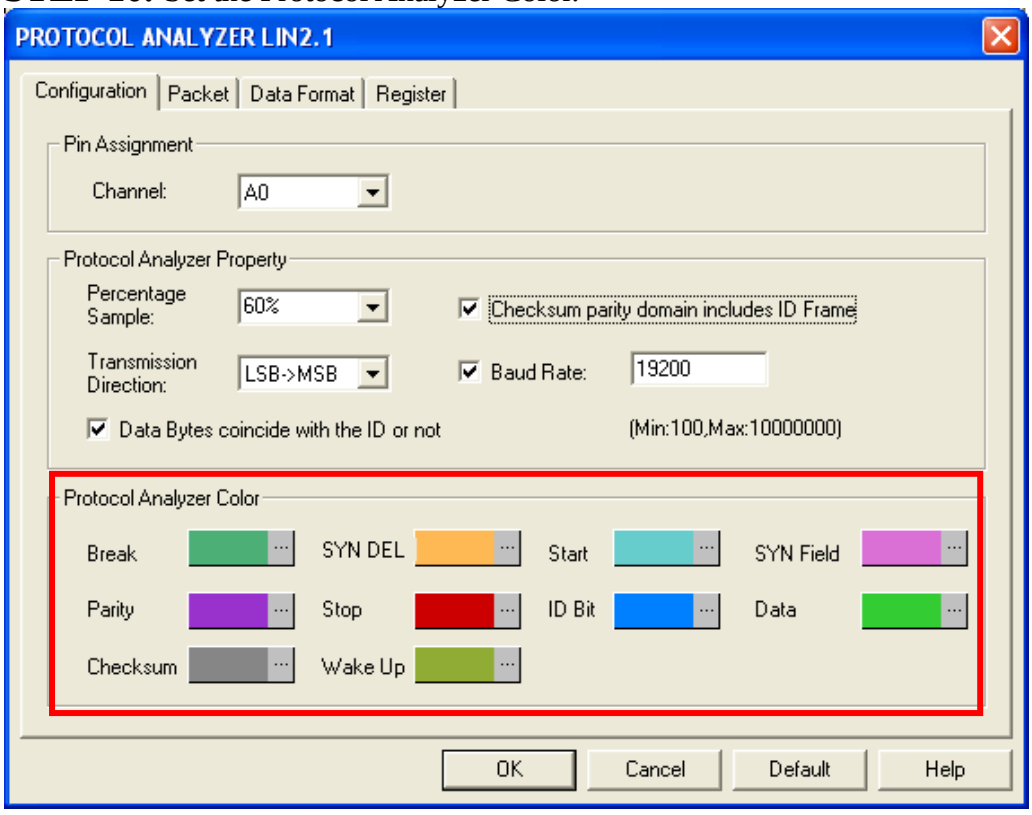


中和市建八路 123 號 2F
電話:886-2-66202225
傳真：886-2-22234362
www.zeroplus.com.tw
2F., No.123,Jian Ba Rd,
Chung Ho City, Taipei Hsien, R.O.C.
Tel: 886-2-66202225
Fax: 886-2-22234362

STEP 9. Set the Baud Rate in the range between 100 and 10000000bps.



STEP 10. Set the Protocol Analyzer Color.

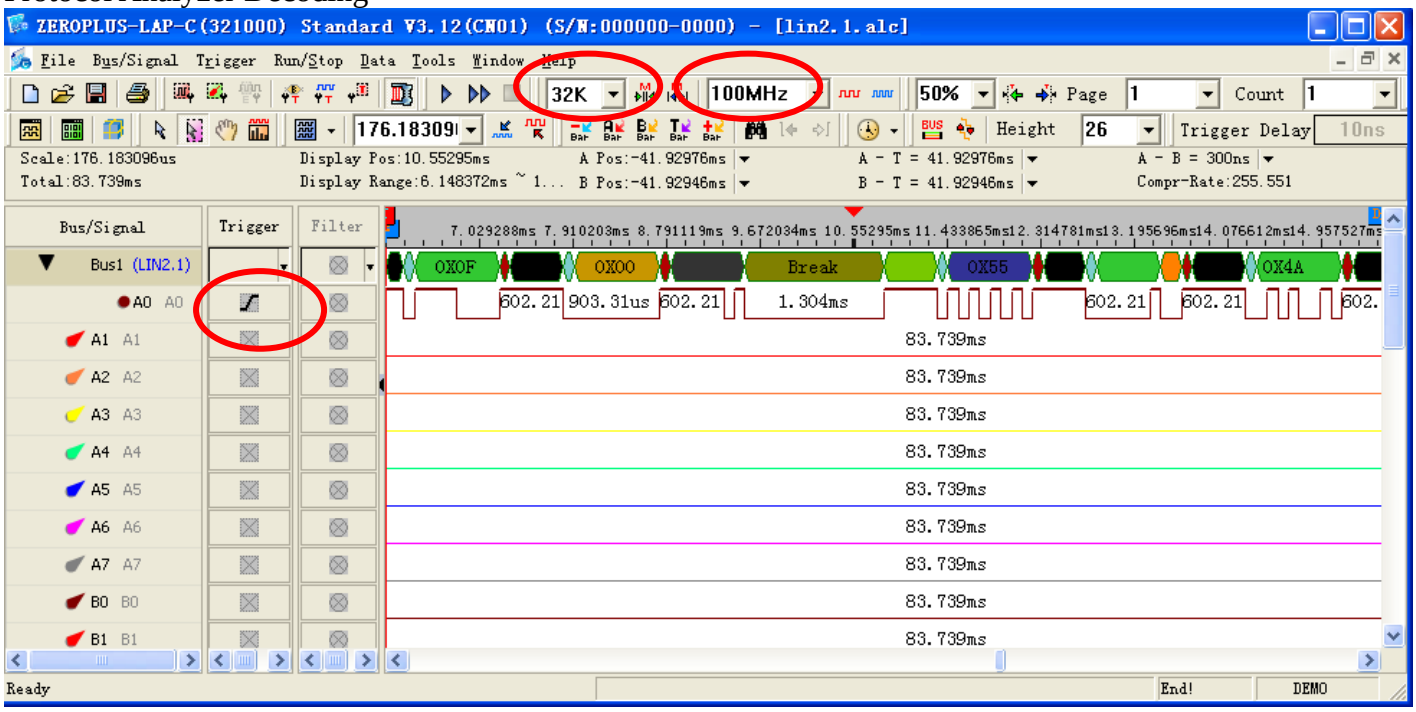


中和市建八路 123 號 2F
電話:886-2-66202225
傳真：886-2-22234362
www.zeroplus.com.tw

2F., No.123,Jian Ba Rd,
Chung Ho City, Taipei Hsien, R.O.C.
Tel: 886-2-66202225
Fax: 886-2-22234362

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 32K; the sampling frequency is 100MHz (the sampling frequency should be more than four times higher than the signal to be tested).

Protocol Analyzer Decoding



Packet List