



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

SPECIFICATION

MODEL: B12007-Line code

PART NO : _____

VERSION : V1.00

Approver		Check	Design
GM	PM		

Customer Confirm

* Please fax the file to ZeroPlus Technology after signing.

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1 软件注册

软件注册请依照下列步骤进行注册。

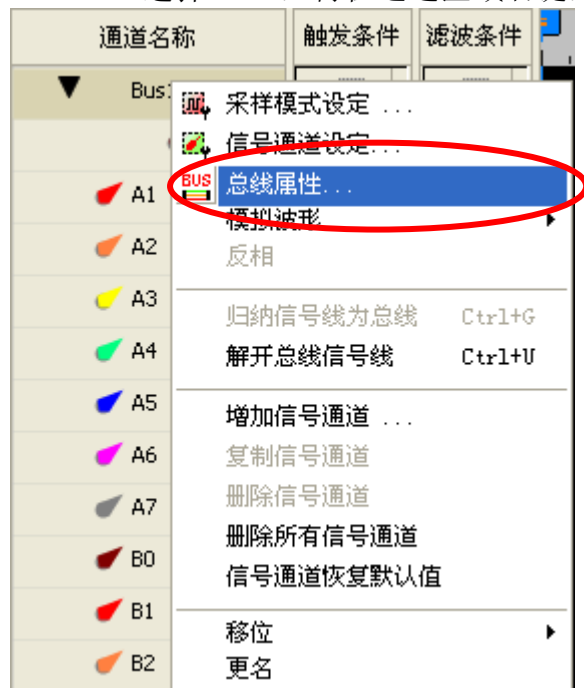
※ 注 1：所有总线注册程序皆相同，注册时依照程序即可，下图注册以 BUS 总线协议为范例，藉以参考。

※ 注 2：本说明书若有任何改动恕不另行通知。因模组版本升级而造成的与本说明书不符，以模组软件为准。

STEP 1. 打开逻辑分析仪软件，在通道名称区域右键，点选归纳信号线为总线，把 A0 归纳为 Bus1。

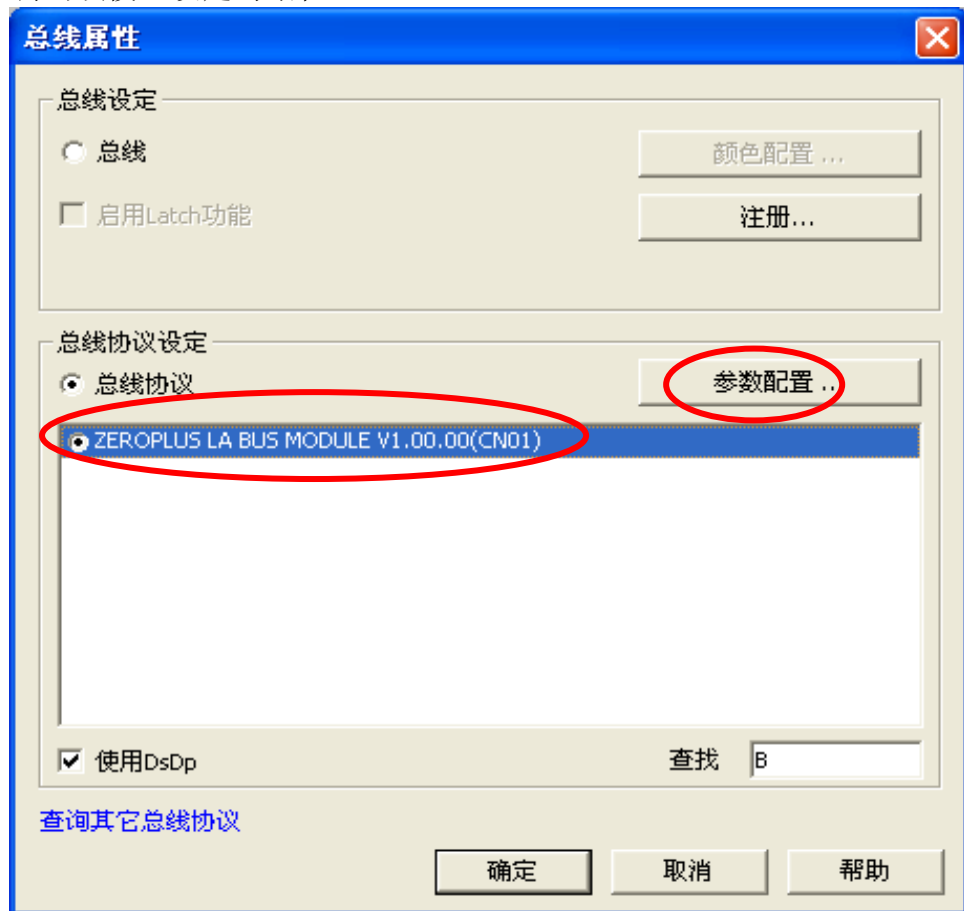


STEP 2. 选择 Bus1，再在通道区域右键，点选总线属性，调出总线属性对话框。

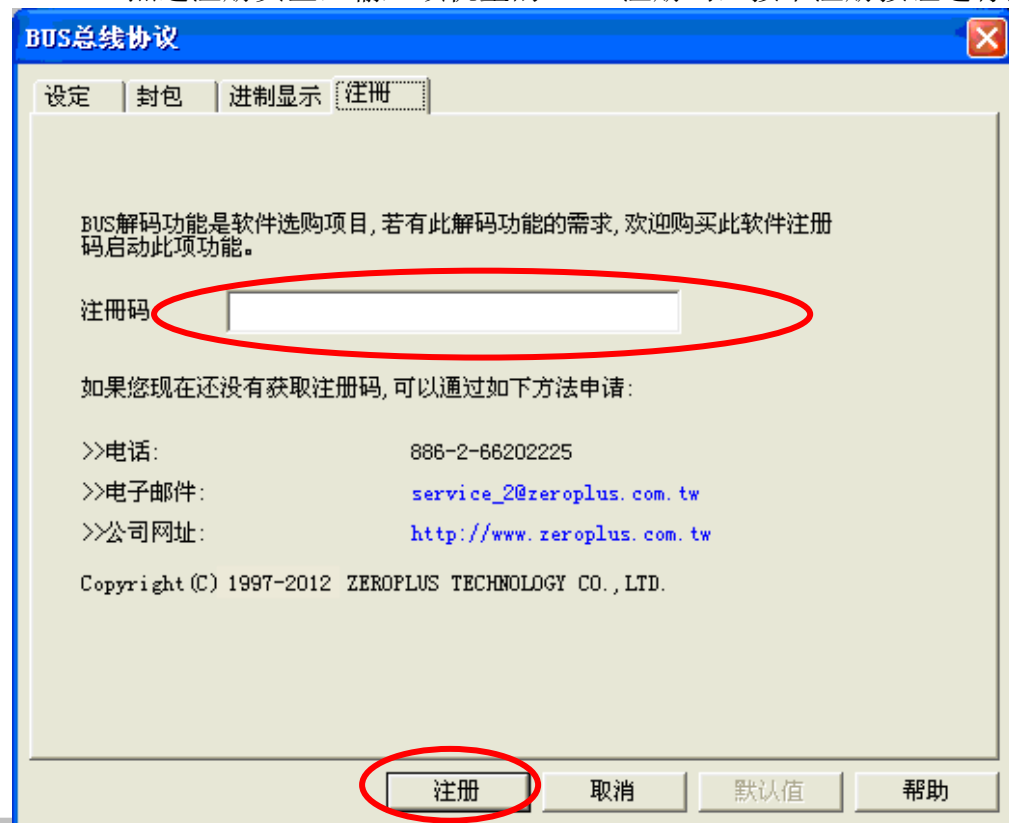




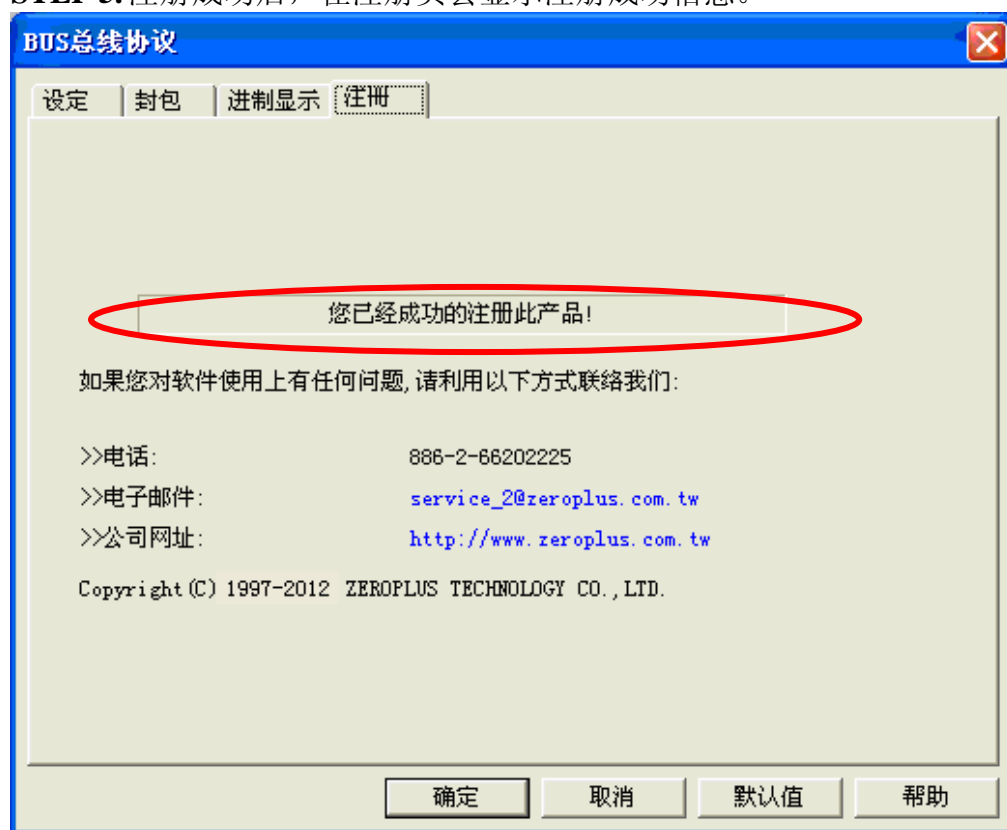
STEP 3. 在总线属性对话框，点选 ZEROPLUS LA BUS MODULE V1.00.00 (CN01)，再单击参数配置按钮，调出该模组设定对话框。



STEP 4. 点选注册页签，输入该机型的 BUS 注册码，按下注册按钮进行注册。



STEP 5.注册成功后，在注册页会显示注册成功信息。





2 人机界面

设定部分，请参考下图界面。

设定页

The screenshot shows a software window titled "Line Code 总线协议" (Line Code Bus Protocol). It has four tabs: "设定" (Setting), "封包" (Packet), "进制显示" (Base Display), and "注册" (Registration). The "设定" tab is active. Inside, there are two main sections: "通道设定" (Channel Setting) with a dropdown menu set to "A0", and "解码设定" (Decoding Setting) with a dropdown menu set to "NRZI (Transition occurs for a one)". Below these is the "总线协议设定" (Bus Protocol Setting) section, which includes: "波特率" (Baud Rate) set to 1 bps with an "自动" (Auto) checkbox checked and an "允许误差" (Allow Error) dropdown set to 20%; "数据长度" (Data Length) set to 1 Bit; "传送方向" (Transmission Direction) set to MSB→LSB; "封包长度" (Packet Length) set to 1; "第一个位为" (First Bit is) set to 1; and "位右移" (Bit Right Shift) set to 0. At the bottom of this section is a "总线协议颜色" (Bus Protocol Color) area with a "Data" label and a green color swatch. At the very bottom of the window are four buttons: "确定" (OK), "取消" (Cancel), "默认值" (Default Value), and "帮助" (Help).

通道设定：Line Code 总线协议只需 1 线解码，默认为 A0。

解码设定：可选择 NRZI (Transition occurs for a one)、NRZI (Transition occurs for a zero)、Manchester (Thomas)、Manchester (IEEE802.3)、Differential Manchester、CMI。

波特率：只可输入整数，输入范围从 1 到（当前采样率÷10）；若勾选自动，则当前波特率设定的编辑框不可见，并将计算得出的波特率显示在编辑框内。默认勾选自动。

允许误差：可选择 5%、10%、20%，默认为 20%。

数据长度：可输入 1~32 的范围值，默认为 1 Bit。

传送方向：可选择 MSB→LSB 或 LSB→MSB 为传送方向，默认为 MSB→LSB。

封包长度：可输入 1~65532 的范围值，默认为 1。

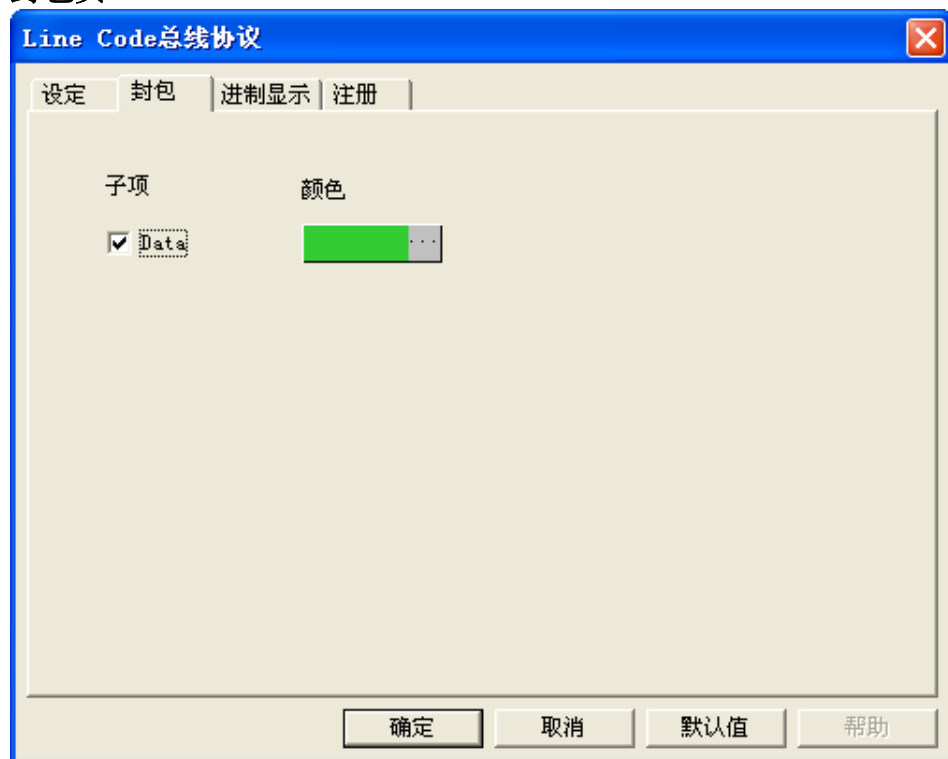
第一个位：只有在选择了 NRZI (Transition occurs for a one)或 NRZI (Transition occurs for a zero)解码模式下才可用，可选择 0 或 1。

位右移：输入范围为 0 ~ 资料长度 - 1。（资料长度 =（信号时间长度/（1/波特率）））。位右移后面的组合框：可选值为“0”和“5”。若解码模式选择 NRZI (Transition occurs for a one)或 NRZI (Transition occurs for a zero)则该组合框不可用。

总线协议颜色：

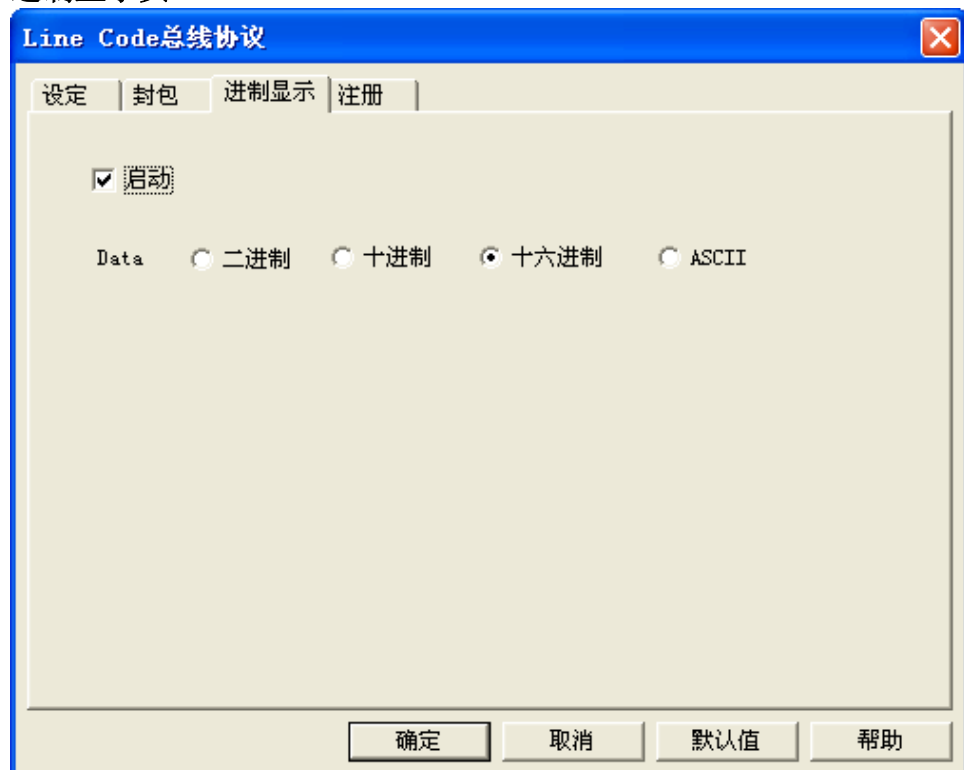
使用者可自行设定解码字段的颜色。

封包页



封包可依使用者喜好调整封包颜色。

进制显示页



启动自定义进制显示，Data 默认为十六进制，用户也可自定义，波形区、封包列表，Data 进制显示以模组控制。默认不启动，则由主程序控制进制显示。

注册页



注册部分提供公司相关信息。有问题时可拨打电话及来信或是上网查询。

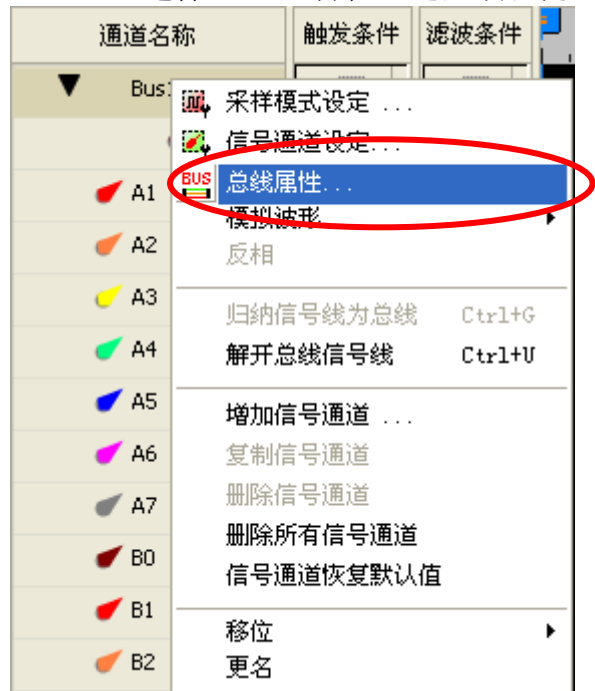


3 使用说明

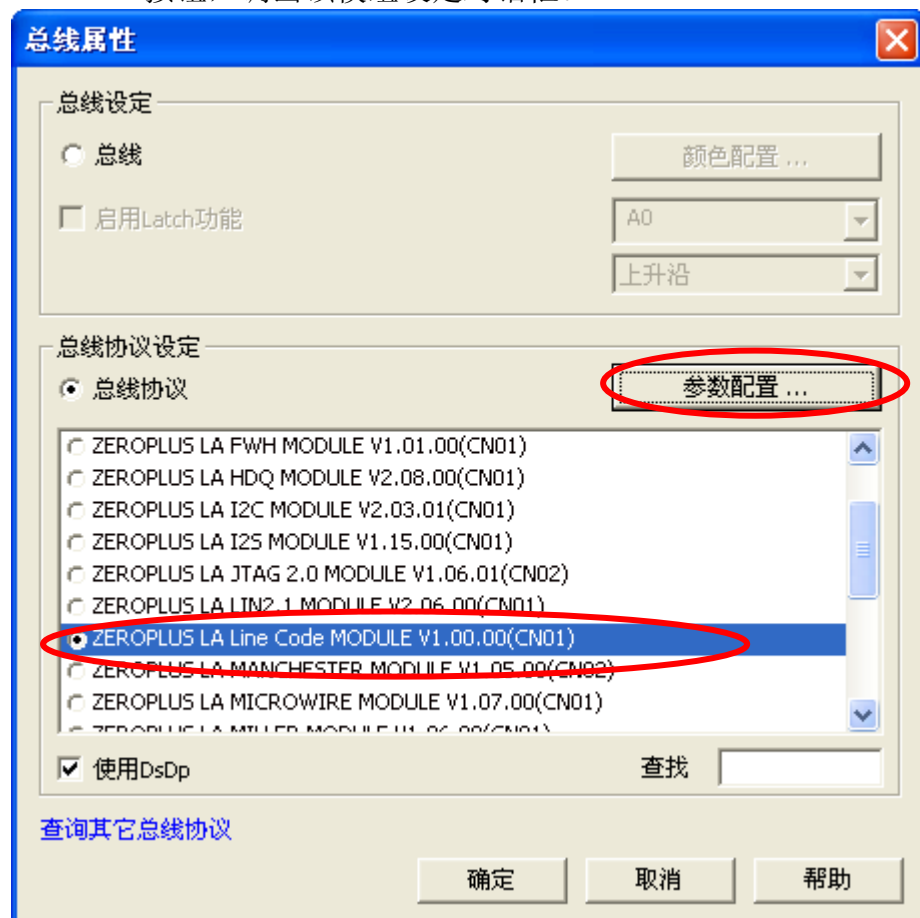
STEP 1. 在通道名称区域右键，点选归纳信号线为总线，把 A0 归纳为 Bus1，Line code 总线协议分析需 1 线解码。



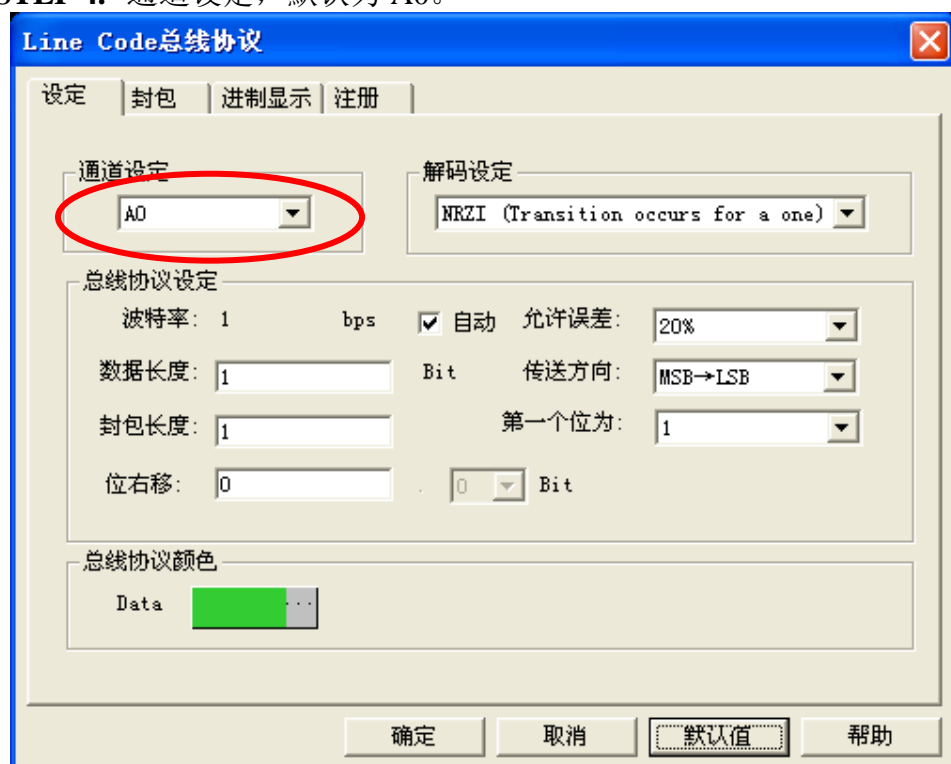
STEP 2. 选择 Bus1，再在通道区域右键，点选总线属性，调出总线属性对话框。



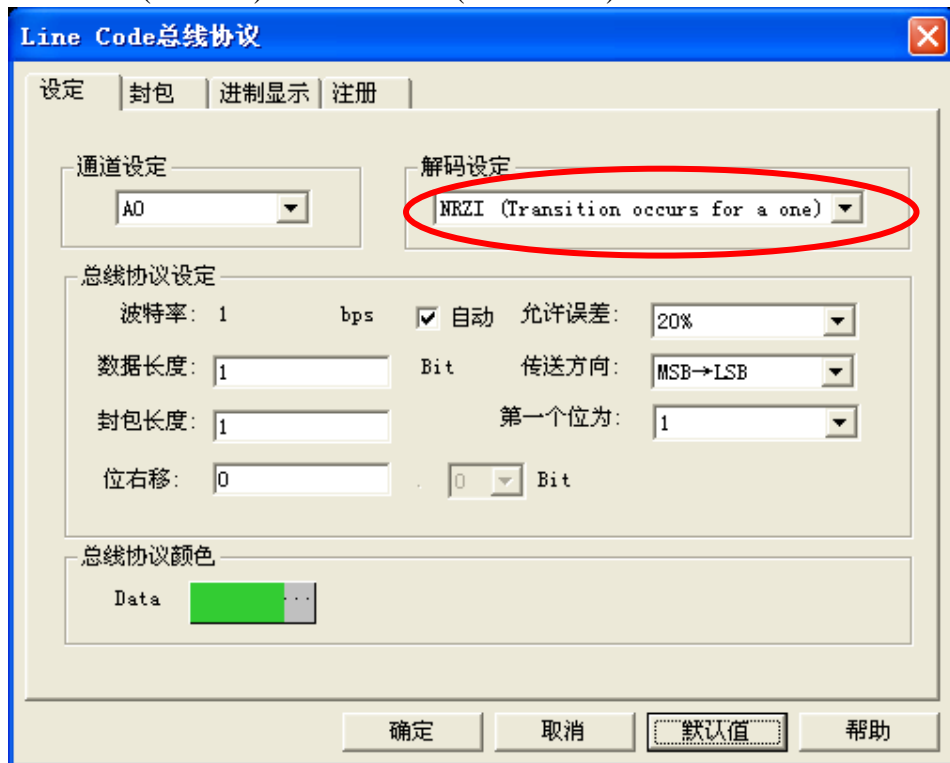
STEP 3. 在总线属性对话框，点选 ZEROPLUS LA Line Code MODULE V1.00.00(CN01)，再单击参数配置按钮，调出该模组设定对话框。



STEP 4. 通道设定，默认为 A0。

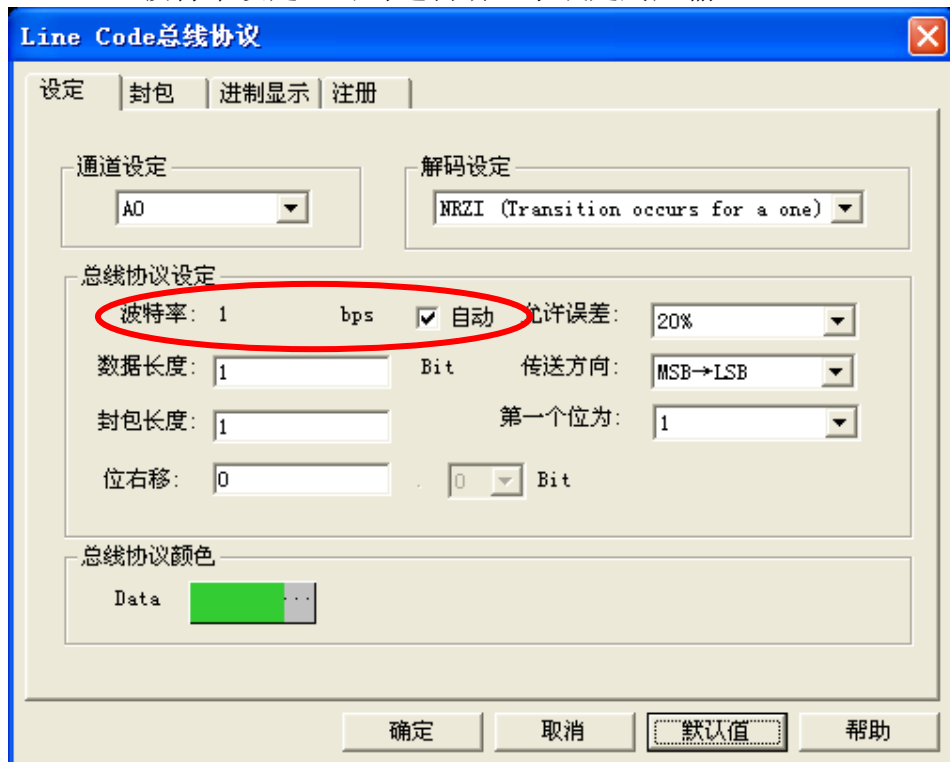


STEP 5. 解码设定, 可选择 NRZI (Transition occurs for a one)、NRZI (Transition occurs for a zero)、Manchester (Thomas)、Manchester (IEEE802.3)、Differential Manchester、CMI。



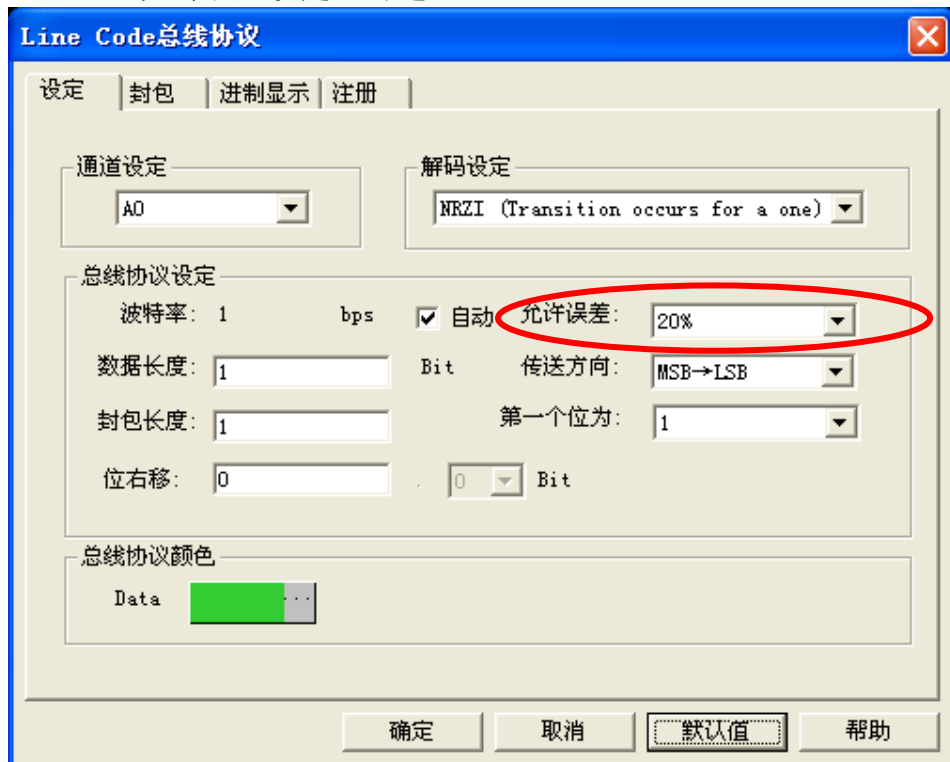
The dialog box titled "Line Code 总线协议" has a blue title bar with a close button. It contains several tabs: "设定" (selected), "封包", "进制显示", and "注册". Under the "设定" tab, there are two main sections: "通道设定" and "解码设定". The "通道设定" section has a dropdown menu showing "AO". The "解码设定" section has a dropdown menu showing "NRZI (Transition occurs for a one)", which is circled in red. Below these are the "总线协议设定" fields: "波特率" (1 bps), "数据长度" (1 Bit), "封包长度" (1), "位右移" (0), "传送方向" (MSB→LSB), "允许误差" (20%), and "第一个位为" (1). At the bottom, there is a "总线协议颜色" section with a "Data" label and a green color swatch. The bottom of the dialog has four buttons: "确定", "取消", "默认值", and "帮助".

STEP 6. 波特率设定, 可勾选自动显示或是用户输入。



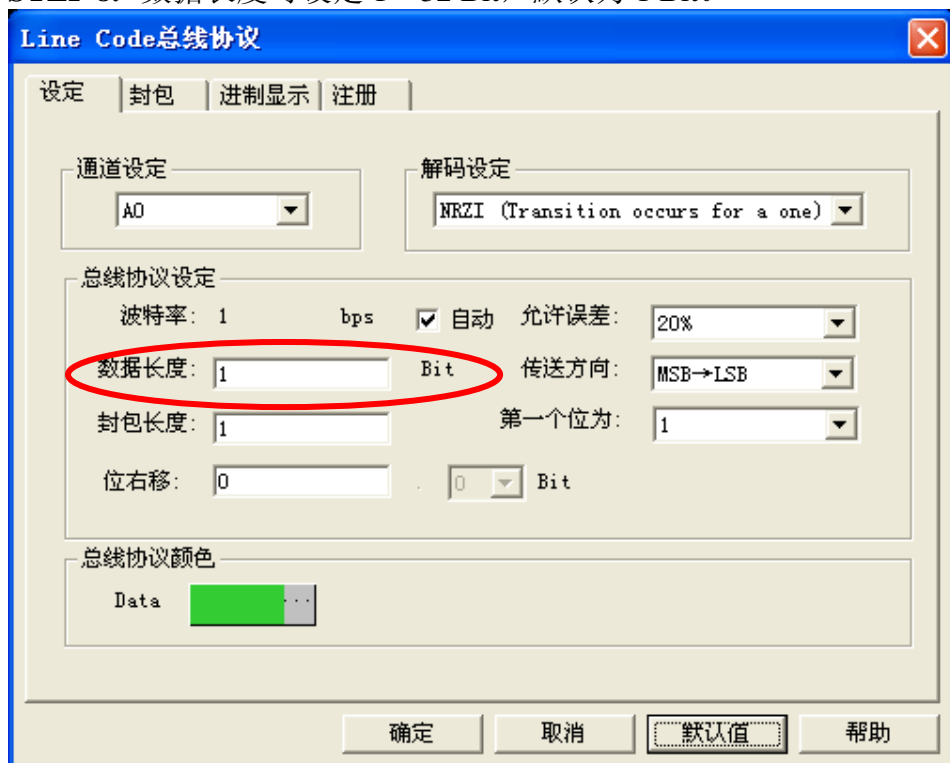
This dialog box is identical to the one in Step 5, but with a red circle around the "波特率" field, which shows "1 bps" and the "自动" checkbox is checked.

STEP 7. 允许误差设定，可选 5%、10%、20%。



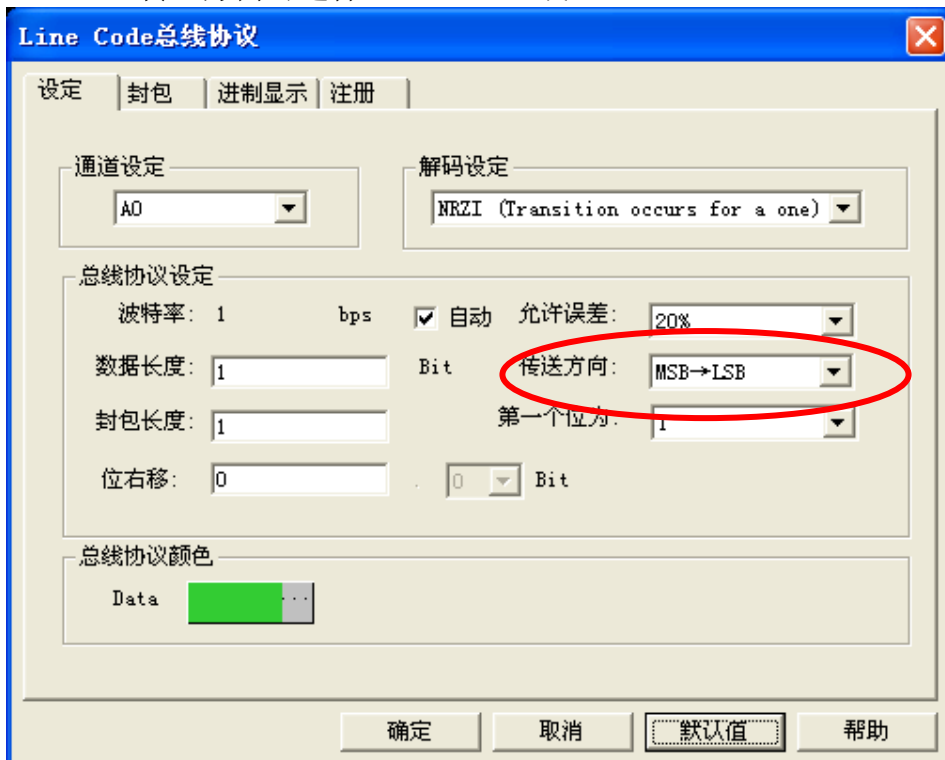
The dialog box titled "Line Code 总线协议" has tabs for "设定", "封包", "进制显示", and "注册". The "设定" tab is active. It contains sections for "通道设定" (Channel Setting) with a dropdown set to "AO", and "解码设定" (Decoding Setting) with a dropdown set to "NRZI (Transition occurs for a one)". The "总线协议设定" (Bus Protocol Setting) section includes: "波特率" (Baud Rate) set to 1 bps, a checked "自动" (Auto) checkbox, "允许误差" (Allow Error) set to 20% (highlighted with a red circle), "数据长度" (Data Length) set to 1 Bit, "传送方向" (Transmission Direction) set to MSB→LSB, "封包长度" (Packet Length) set to 1, and "第一个位为" (First bit is) set to 1. There is also a "位右移" (Bit Right Shift) section with a value of 0. The "总线协议颜色" (Bus Protocol Color) section shows a "Data" label and a green color swatch. At the bottom are buttons for "确定" (OK), "取消" (Cancel), "默认值" (Default), and "帮助" (Help).

STEP 8. 数据长度可设定 1~32 Bit，默认为 1 Bit。



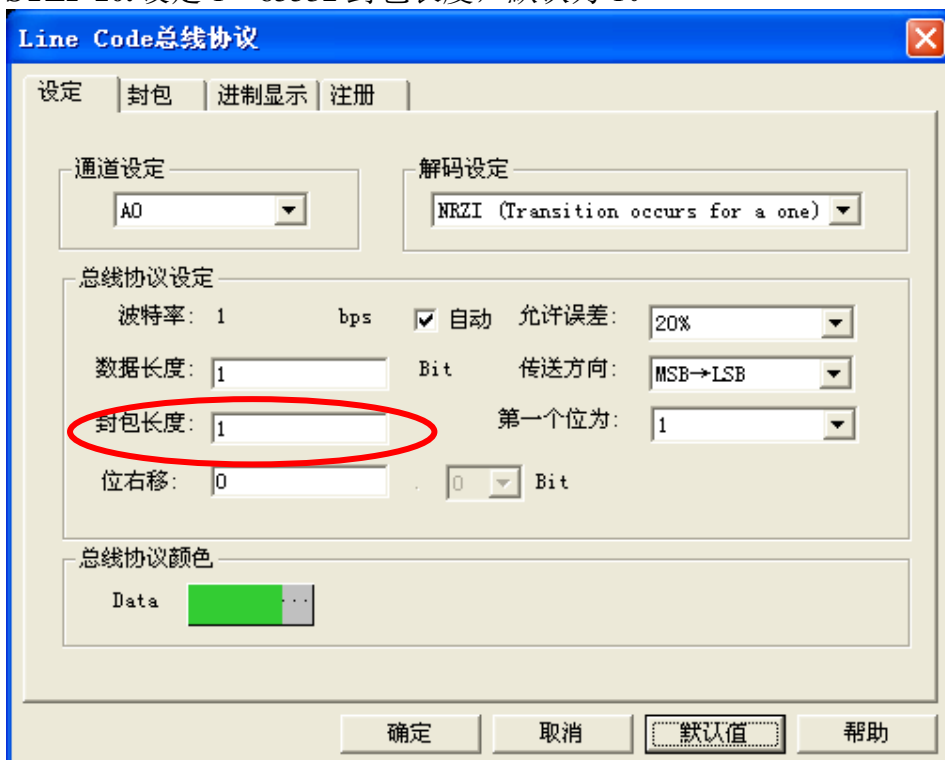
This dialog box is identical to the one in Step 7, but the "数据长度" (Data Length) field, which is set to 1 Bit, is highlighted with a red circle to indicate it is the focus of this step.

STEP 9. 传送方向可选择 MSB→LSB 或 LSB→MSB。



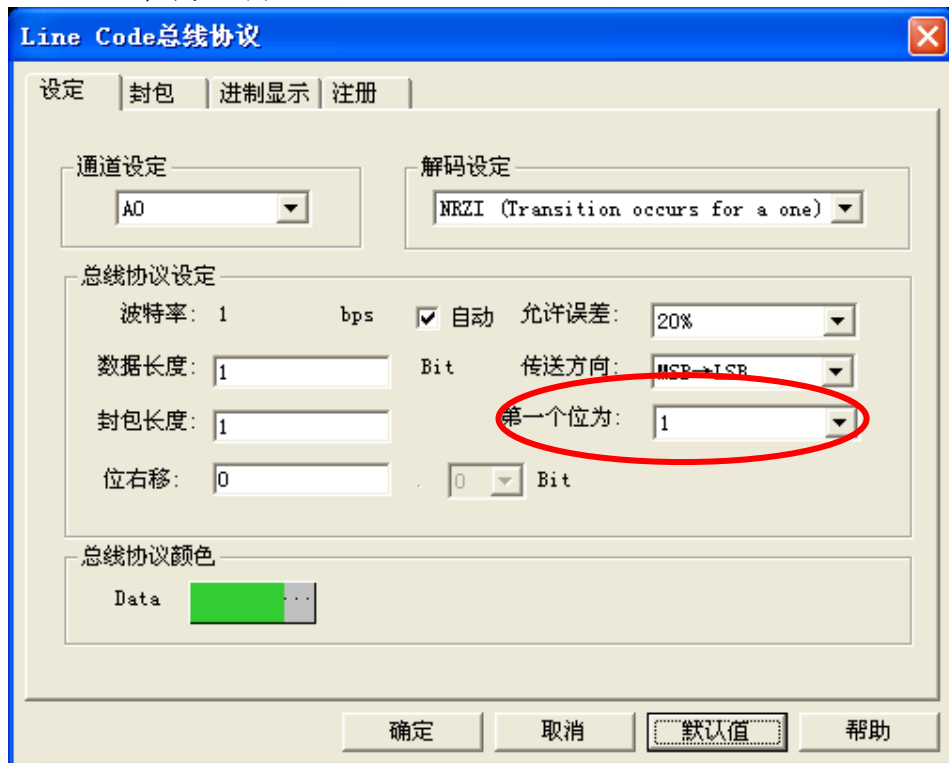
The screenshot shows the 'Line Code 总线协议' (Line Code Bus Protocol) configuration window. The '设定' (Settings) tab is active. Under '通道设定' (Channel Settings), 'AO' is selected. Under '解码设定' (Decoding Settings), 'NRZI (Transition occurs for a one)' is selected. In the '总线协议设定' (Bus Protocol Settings) section, '波特率' (Baud Rate) is 1 bps, '数据长度' (Data Length) is 1 Bit, '封包长度' (Packet Length) is 1, and '位右移' (Bit Shift) is 0. The '传送方向' (Transfer Direction) is set to 'MSB→LSB', which is circled in red. The '允许误差' (Tolerance) is 20%, and '第一个位为' (First bit is) is 1. The '总线协议颜色' (Bus Protocol Color) section shows 'Data' as a green bar. At the bottom are buttons for '确定' (OK), '取消' (Cancel), '默认值' (Default), and '帮助' (Help).

STEP 10. 设定 1~65532 封包长度，默认为 1。



This screenshot is identical to the previous one, but the '封包长度' (Packet Length) field, which contains the value '1', is circled in red to indicate the setting for Step 10.

STEP 11. 选择 NRZI (Transition occurs for a one)或 NRZI (Transition occurs for a zero)模式时，可设定第一个位为 0 或 1。



The dialog box 'Line Code 总线协议' has tabs for '设定' (selected), '封包', '进制显示', and '注册'. It contains sections for '通道设定' (Channel Setting) with a dropdown set to 'AO', and '解码设定' (Decoding Setting) with a dropdown set to 'NRZI (Transition occurs for a one)'. The '总线协议设定' (Bus Protocol Setting) section includes: '波特率' (Baud Rate) set to 1 bps with an '自动' (Auto) checkbox checked; '允许误差' (Allow Error) set to 20%; '数据长度' (Data Length) set to 1 Bit; '传送方向' (Transfer Direction) set to 'MSB→LSB'; '封包长度' (Packet Length) set to 1; '位右移' (Bit Shift Right) set to 0 Bit; and '第一个位为' (First bit is) set to 1, which is circled in red. At the bottom, there is a '总线协议颜色' (Bus Protocol Color) section with a 'Data' color swatch and buttons for '确定' (OK), '取消' (Cancel), '默认值' (Default), and '帮助' (Help).

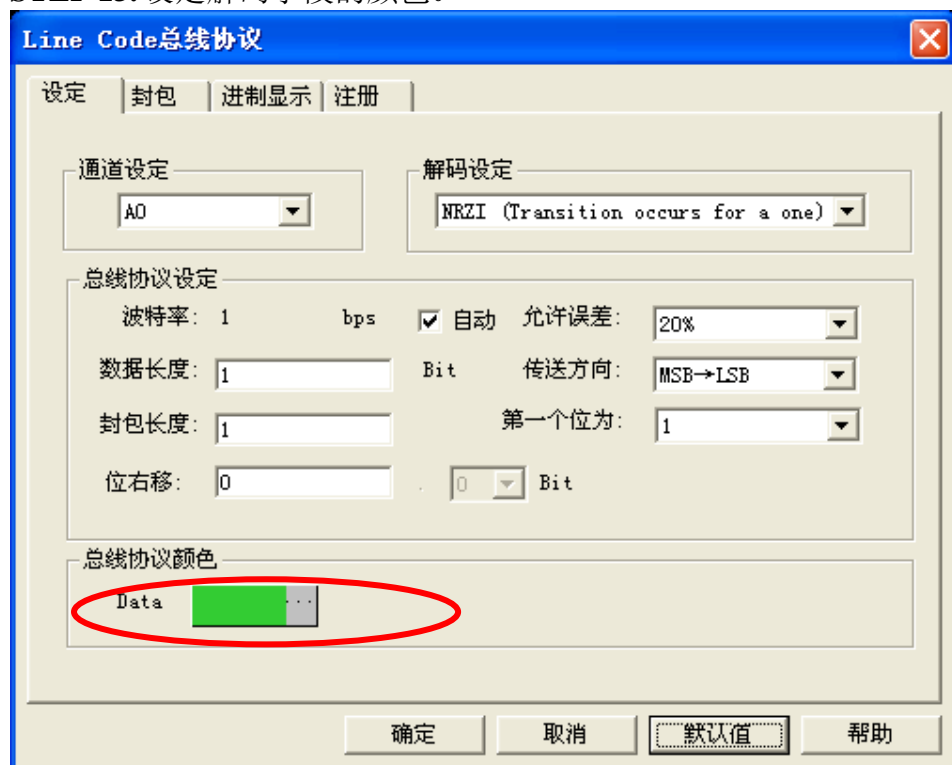
STEP 12. 位右移设定。



This dialog box is identical to the one in Step 11, but the '位右移' (Bit Shift Right) field is circled in red, indicating it is the focus of this step. All other settings remain the same.

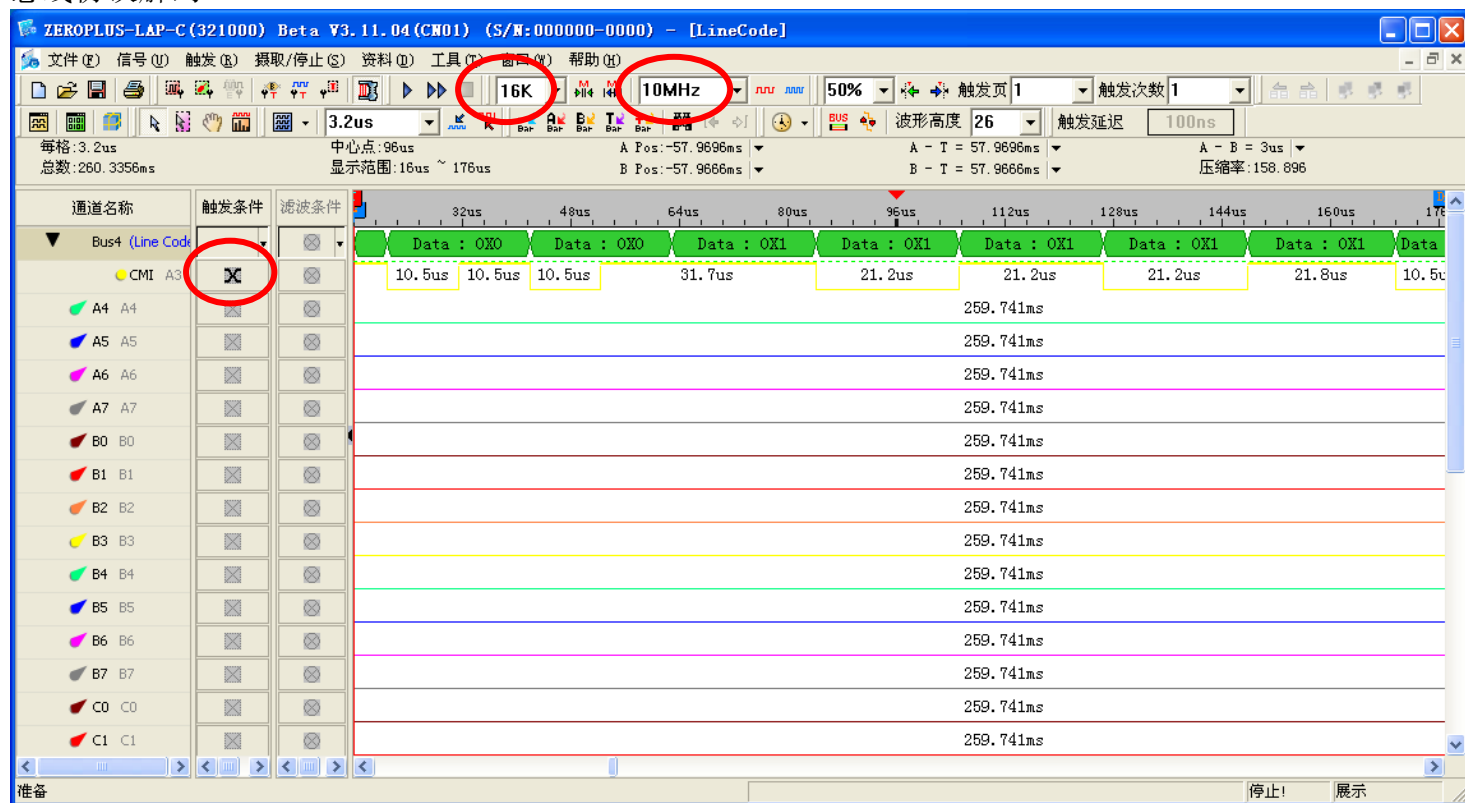


STEP 13. 设定解码字段的颜色。



STEP 14. 总线协议解码完成图示，设定条件为任一边沿触发、内存为 16K、采样频率为 10MHz。（采样频率最好是波特率的 10 倍以上）

总线协议解码





封包列表

