



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
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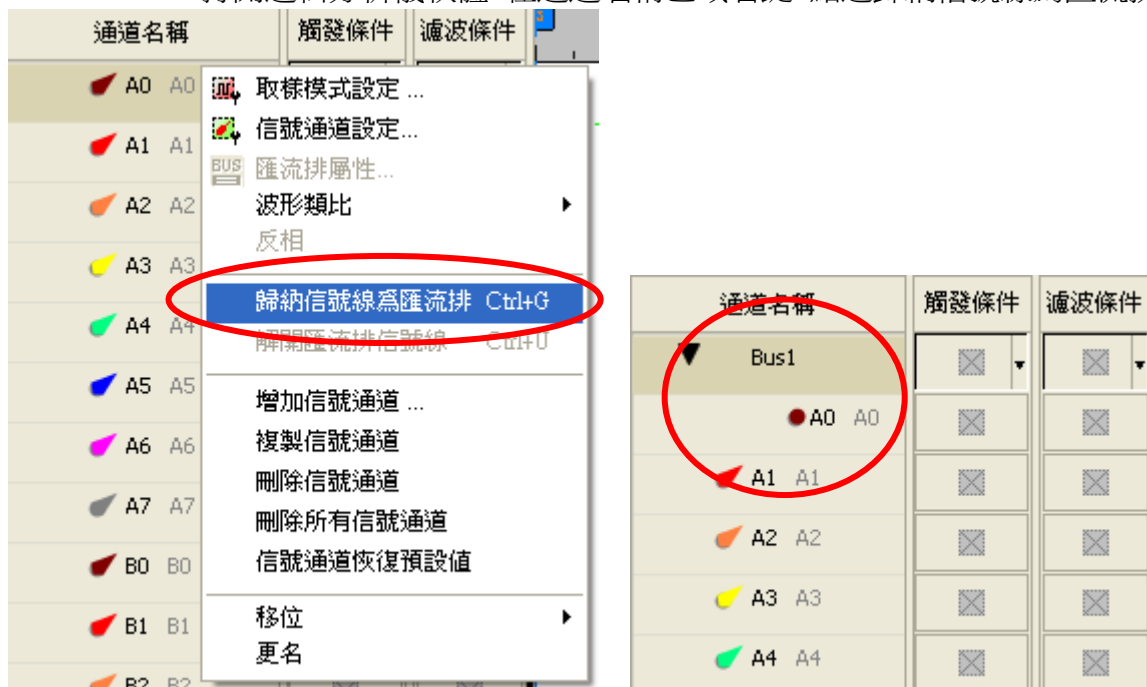
1 軟體註冊

軟體註冊請依照下列步驟進行註冊。

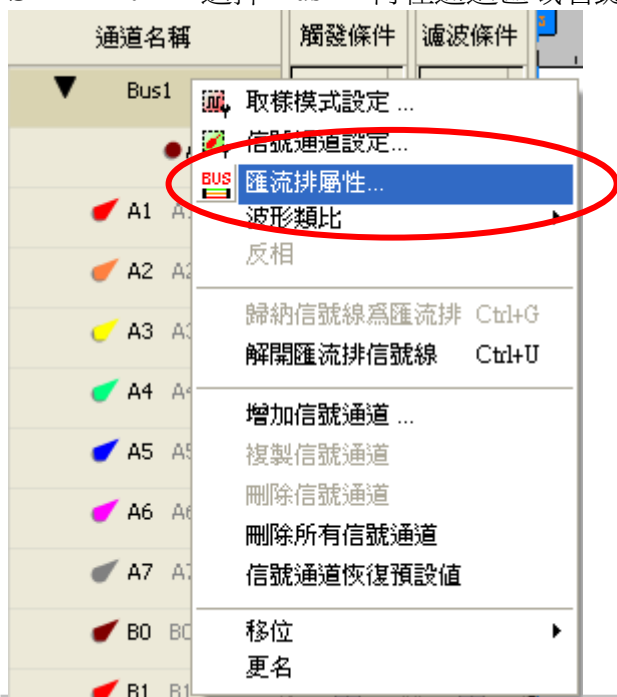
※ 注 1：所有匯流排註冊方式皆相同，註冊時依照流程即可，下圖註冊以 BUS 匯流排協定為範例，藉以參考。

※ 注 2：本說明書若有任何改動恕不另行通知。因模組版本升級而造成的與本說明書不符，以模組軟體為準。

STEP 1. 打開邏輯分析儀軟體，在通道名稱區域右鍵，點選歸納信號線為匯流排，把 A0 歸納為 Bus1。

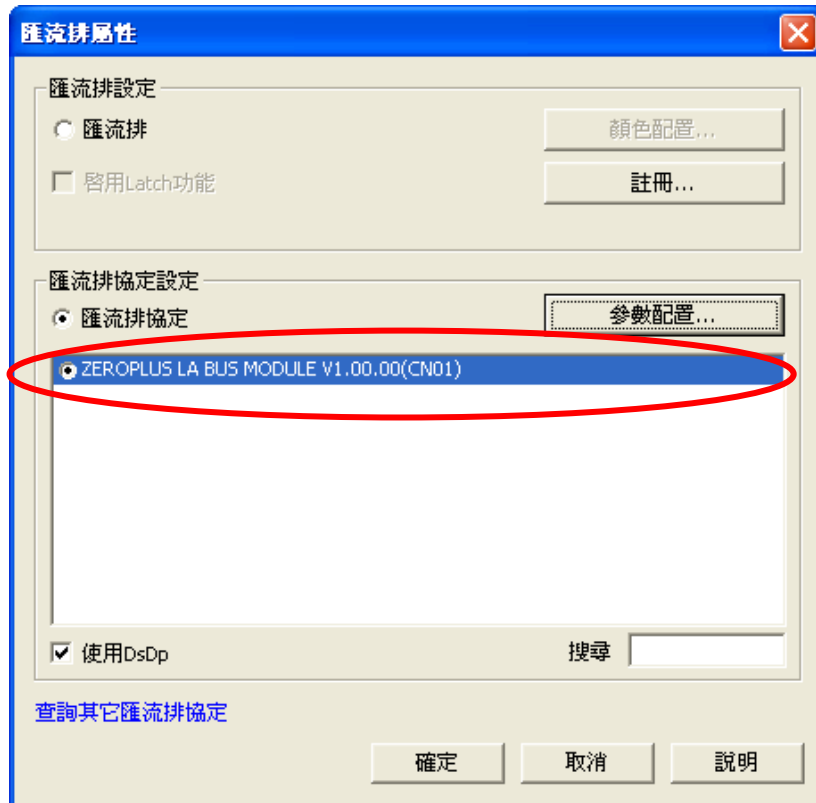


STEP 2. 選擇 Bus1，再在通道區域右鍵，點選匯流排屬性，調出匯流排屬性對話框。

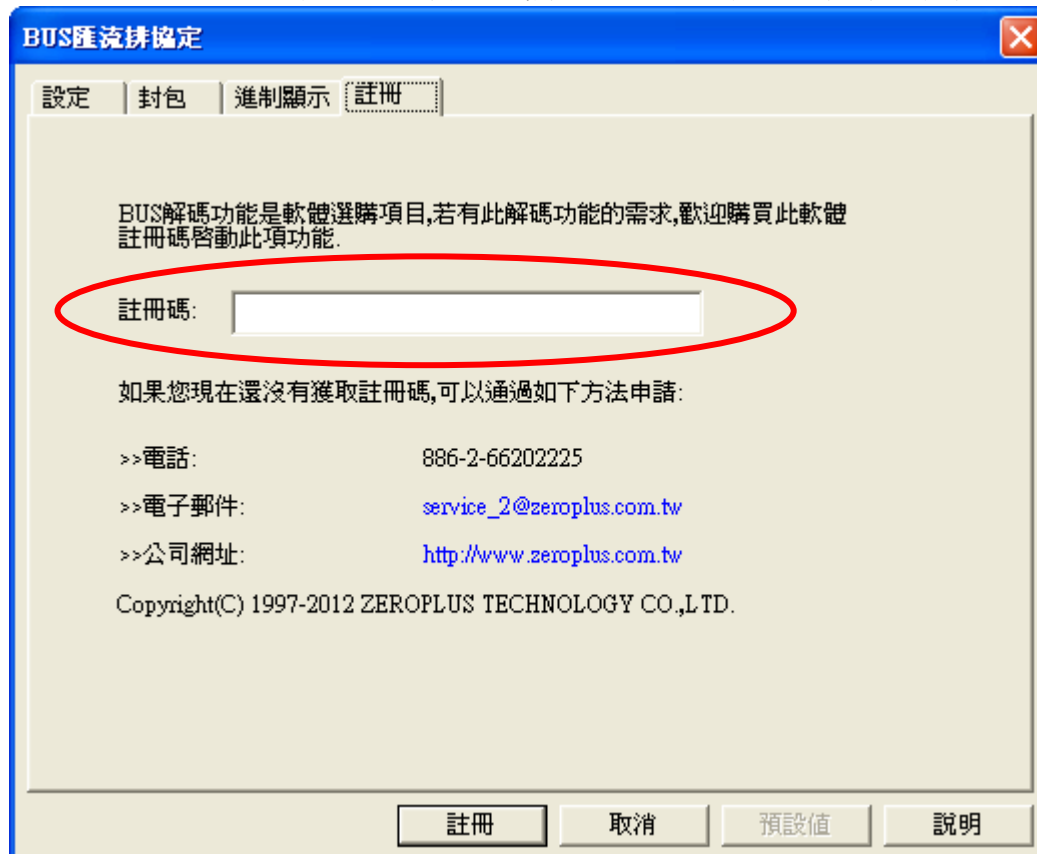




STEP 3. 在匯流排屬性對話框，點選 ZEROPLUS LA BUS MODULE V1.00.00(CN01)，再單擊參數配置按鈕調出該模組設定對話框。

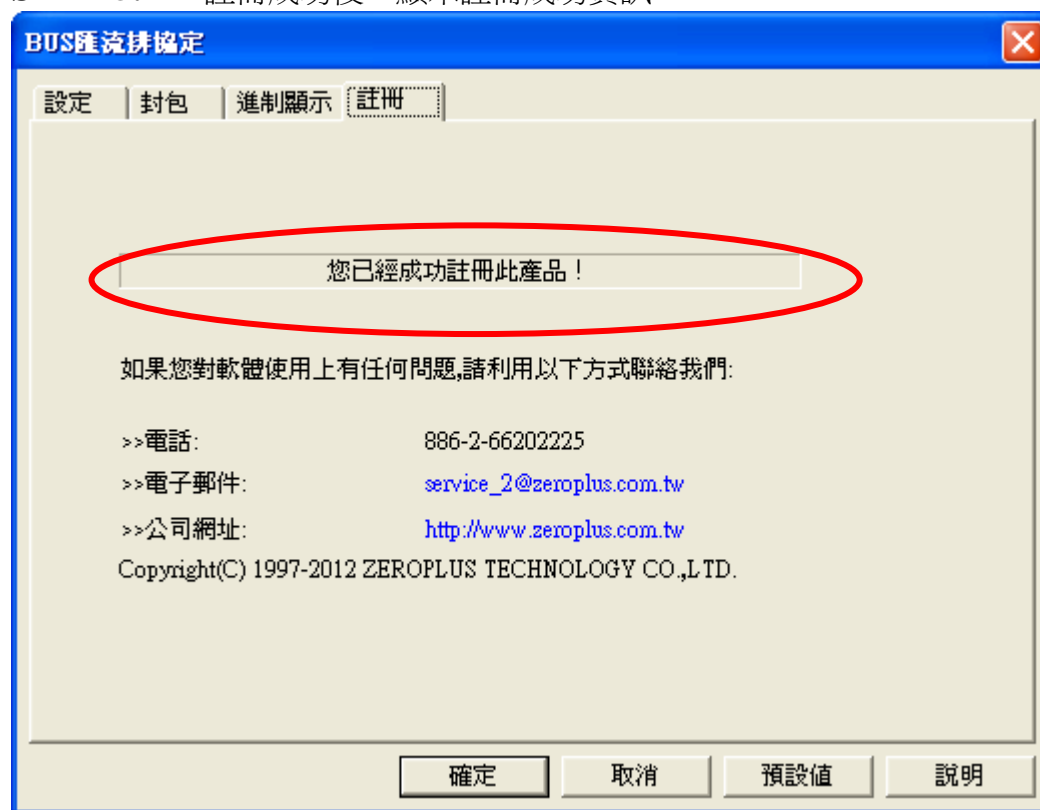


STEP 4. 點選註冊頁籤，輸入該機型的 BUS 註冊碼，按下註冊按鈕進行註冊。





STEP 5. 註冊成功後，顯示註冊成功資訊。





2 人機介面

設定部分，請參考下圖介面。

設定頁

The image shows a software window titled "Line Code 匯流排協定" (Line Code Bus Protocol). It has four tabs: "設定" (Settings), "封包" (Packet), "進制顯示" (Hex Display), and "註冊" (Register). The "設定" tab is active. Inside, there are several sections: "通道設定" (Channel Settings) with a dropdown menu showing "A0"; "解碼設定" (Decoding Settings) with a dropdown menu showing "NRZI (Transition occurs for a one)"; "匯流排協定設定" (Bus Protocol Settings) containing fields for "鮑率" (Baud Rate) set to 1 bps, "資料長度" (Data Length) set to 1 Bit, "封包長度" (Packet Length) set to 1, "位元右移" (Bit Shift) set to 0, and checkboxes for "自動" (Auto) and "允許誤差" (Allow Error) set to 20%; "傳送方向" (Transmission Direction) set to "MSB->LSB"; and "第一個準位為" (First Bit Level) set to 1. At the bottom of this section is a "0 Bit" label. The "匯流排協定顏色" (Bus Protocol Color) section shows a green box for "Data". At the bottom of the window are four buttons: "確定" (OK), "取消" (Cancel), "預設值" (Default), and "說明" (Help).

通道設定：Line Code 匯流排協定只需 1 線解碼，預設為 A0。

解碼設定：可選擇 NRZI (Transition occurs for a one)、NRZI (Transition occurs for a zero)、Manchester (Thomas)、Manchester (IEEE802.3)、Differential Manchester、CMI。

鮑率：只可輸入整數，輸入範圍從 1 到（目前取樣率÷10）；若勾選自動，則目前鮑率設定的編輯框不可見，並將計算得出的鮑率顯示在編輯框內。預設勾選自動。

允許誤差：可選擇 5%、10%、20%，預設為 20%。

資料長度：可輸入 1~32 的範圍值，預設為 1 Bit。

傳送方向：可選擇 MSB→LSB 或 LSB→MSB 為傳送方向，預設為 MSB→LSB。

封包長度：可輸入 1~65532 的範圍值，預設為 1。

第一個準位：只有在選擇了 NRZI (Transition occurs for a one)或 NRZI (Transition occurs for a zero)解碼模式下才可用，可選擇 0 或 1。

位元右移：輸入範圍為 0 ~ 資料長度 - 1。（資料長度 =（信號時間長度/（1/鮑率）））。位元右移後面的

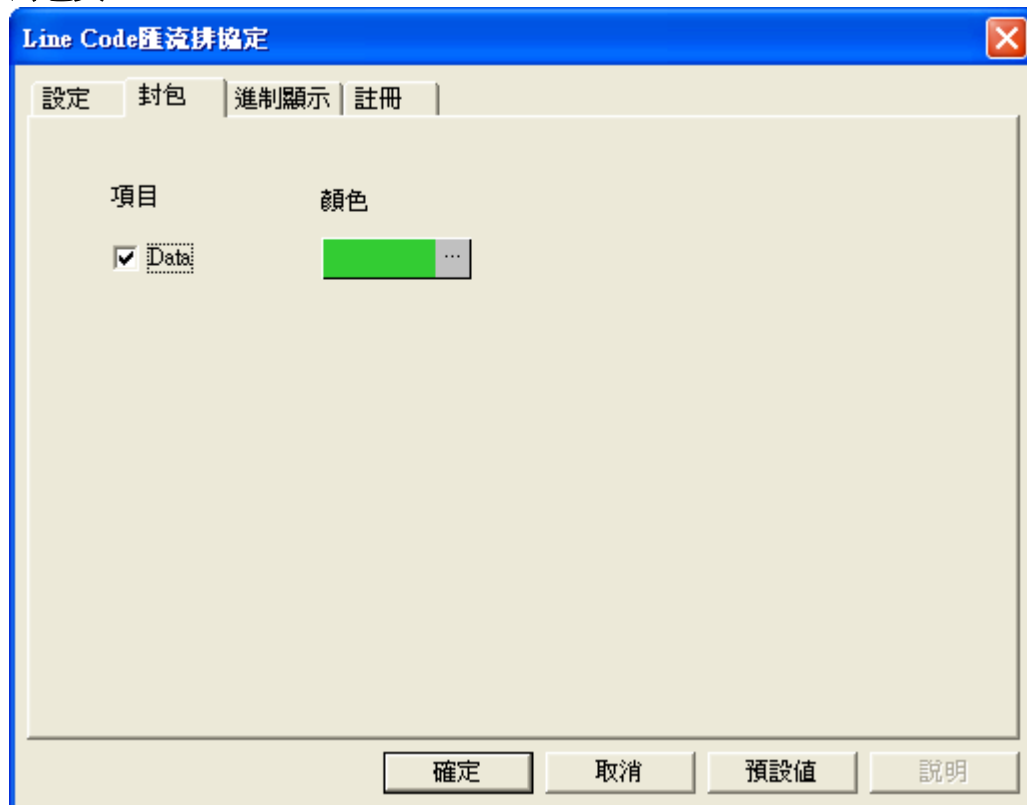


下拉式列示選單：可選值為“0”和“5”。若解碼模式選擇 NRZI (Transition occurs for a one)或 NRZI (Transition occurs for a zero)則該下拉式列示選單不可用。

匯流排協定顏色：

使用者可自行設定解碼欄位的顏色。

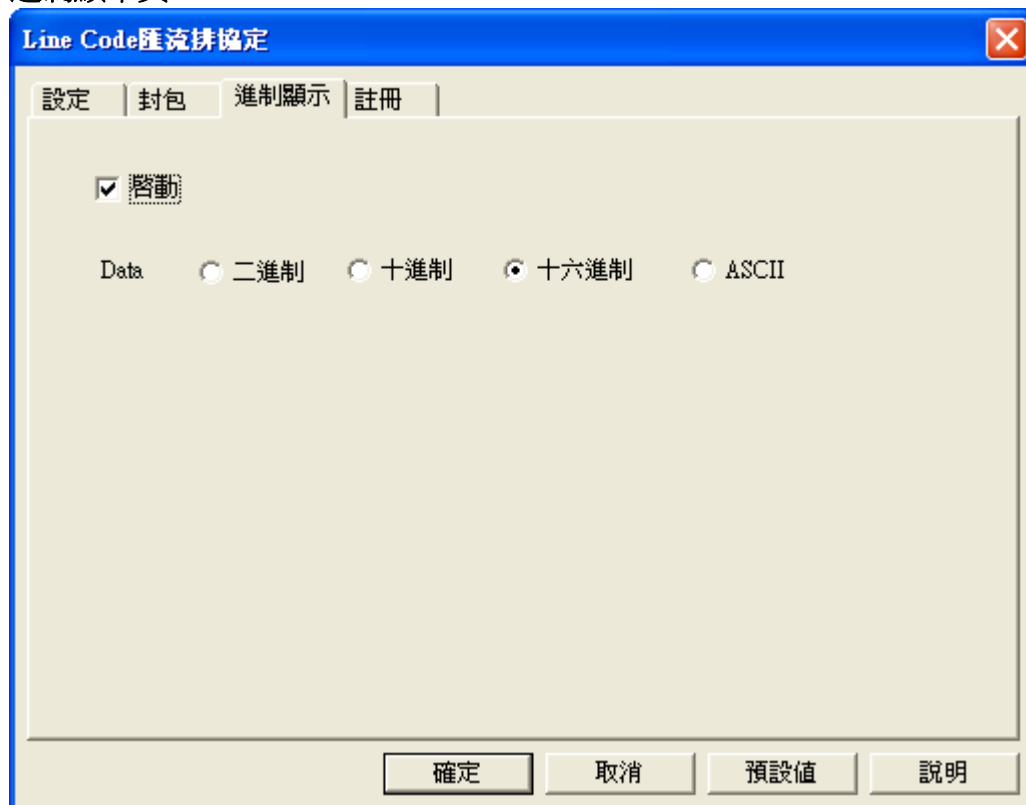
封包頁



封包可依使用者喜好調整封包顏色。



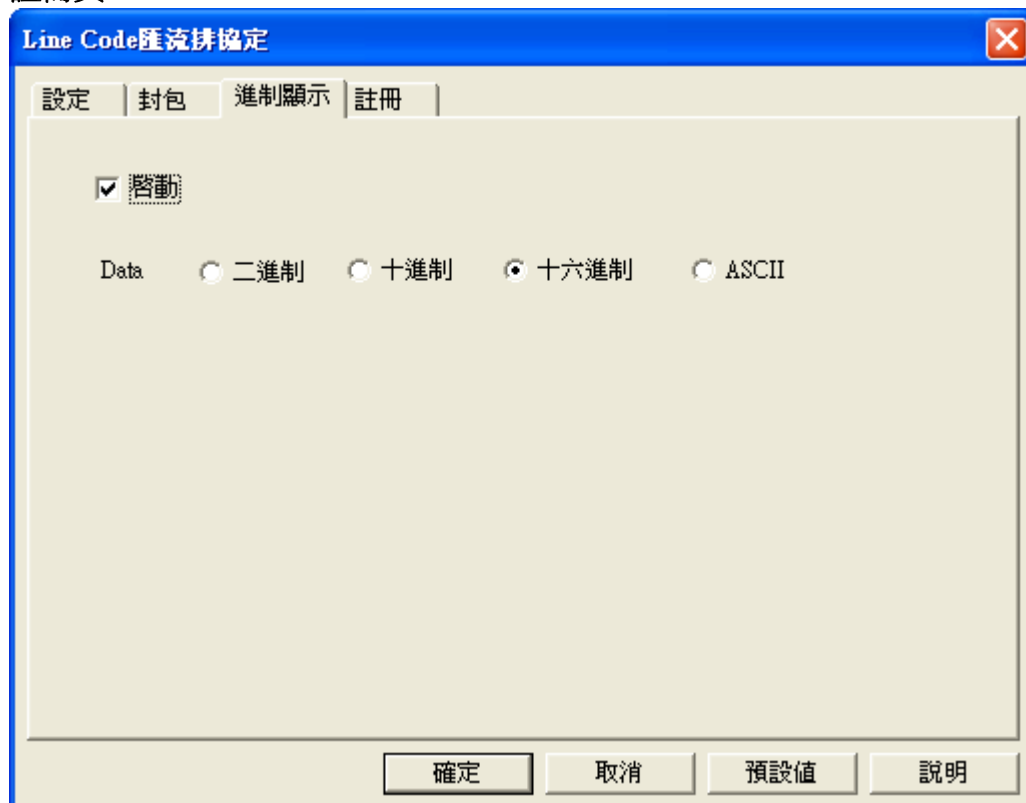
進制顯示頁



The dialog box titled "Line Code匯流排協定" has four tabs: "設定", "封包", "进制顯示", and "註冊". The "进制顯示" tab is active. It contains a checked checkbox labeled "啟動". Below it, there are four radio button options: "Data", "二進制", "十進制", and "十六進制" (which is selected), followed by "ASCII". At the bottom, there are four buttons: "確定", "取消", "預設值", and "說明".

啟動自定義進制顯示，Data 預設為十六進制，使用者也可自定義，波形區、封包列表，Data 進制顯示以模組控制。預設不啟動，則由主程式控制進制顯示。

註冊頁



The dialog box titled "Line Code匯流排協定" has four tabs: "設定", "封包", "进制顯示", and "註冊". The "註冊" tab is active. It contains a checked checkbox labeled "啟動". Below it, there are four radio button options: "Data", "二進制", "十進制", and "十六進制" (which is selected), followed by "ASCII". At the bottom, there are four buttons: "確定", "取消", "預設值", and "說明".

註冊部分提供公司相關資訊。有問題時可撥打電話及來信或是上網查詢。

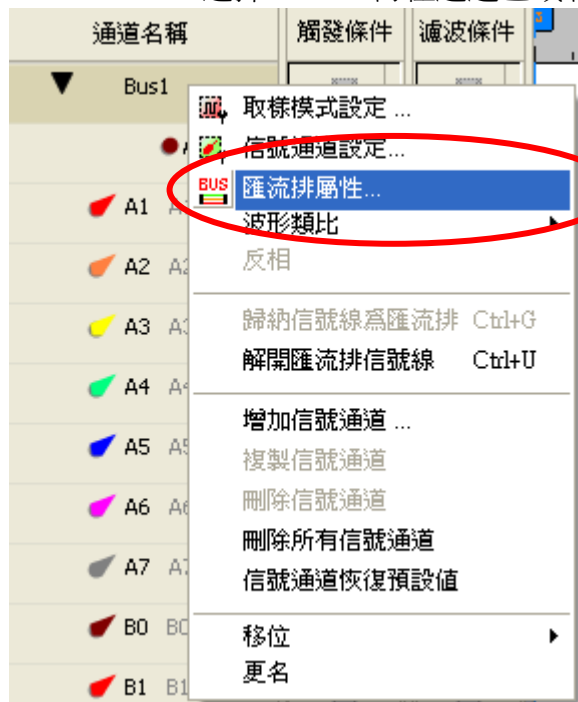


3 使用說明

STEP 1. 在通道名稱區域右鍵，點選歸納信號線為匯流排，把 A0 歸納為 Bus1，Line code 匯流排協定需要 1 根訊號線解碼。

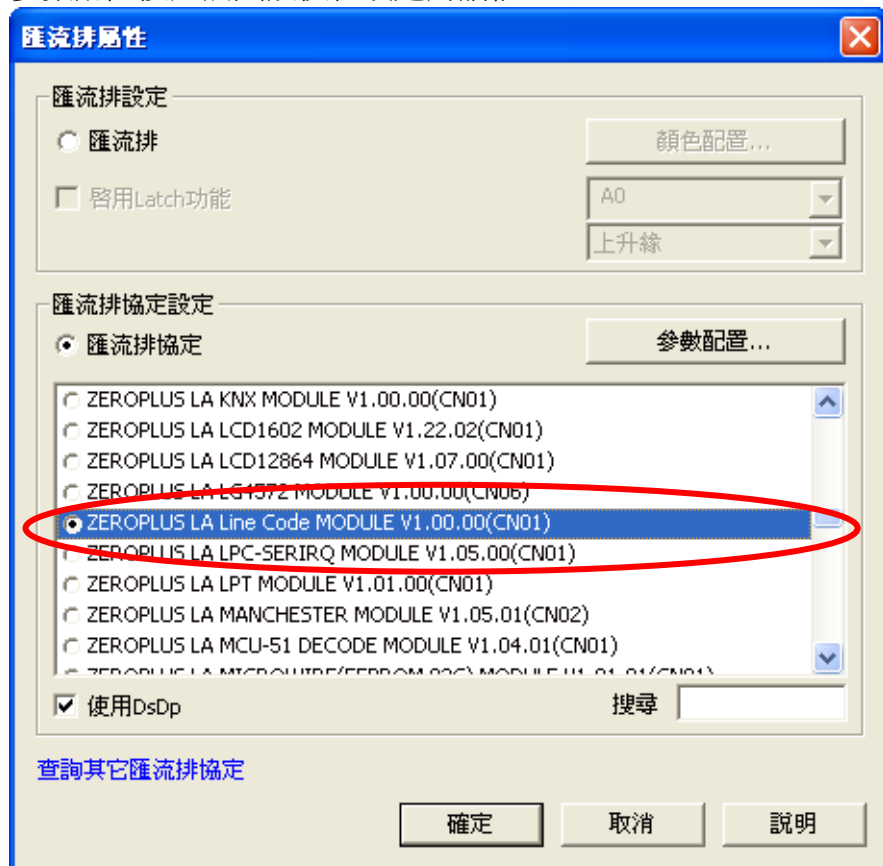


STEP 2. 選擇 Bus1，再在通道區域右鍵，點選匯流排屬性，調出匯流排屬性對話框。

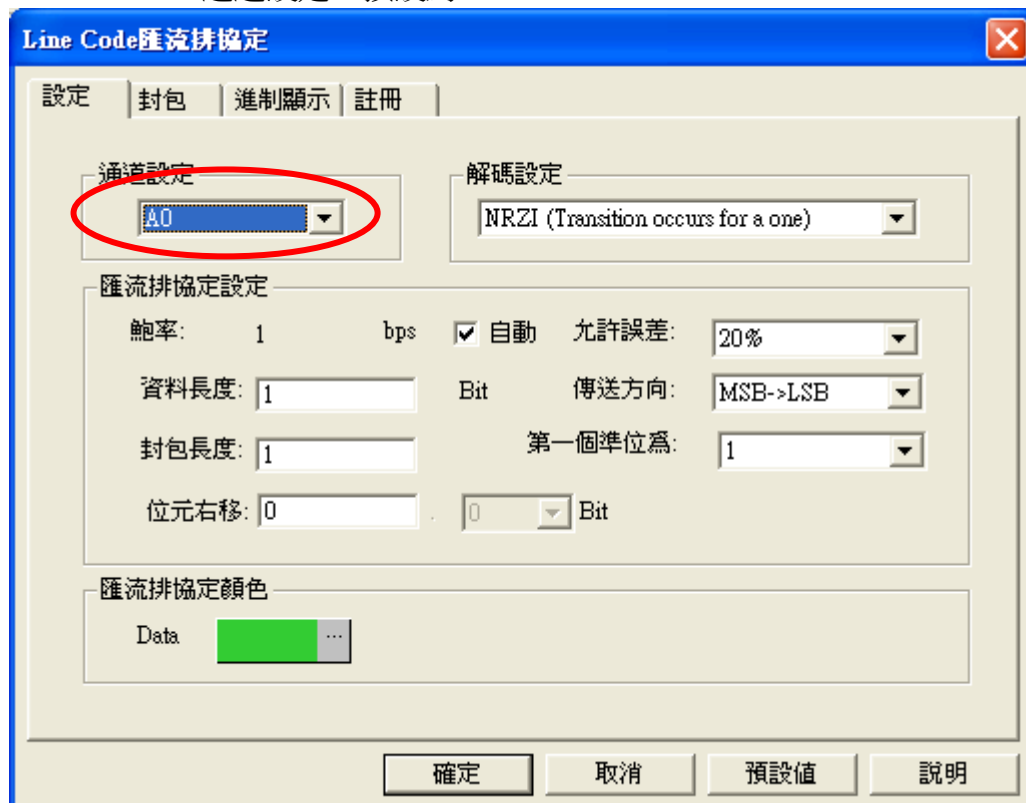




STEP 3. 在匯流排屬性對話框，點選 ZEROPLUS LA Line code MODULE V1.00.00(CN01)，再單擊參數配置按鈕調出該模組設定對話框。



STEP 4. 通道設定，預設為 A0。





STEP 5. 解碼設定，可選擇 NRZI (Transition occurs for a one)、NRZI (Transition occurs for a zero)、Manchester (Thomas)、Manchester (IEEE802.3)、Differential Manchester、CMI。

Line Code匯流排協定

設定 | 封包 | 進制顯示 | 註冊

通道設定: A0

解碼設定: NRZI (Transition occurs for a one)

匯流排協定設定

鮑率: 1 bps ☒ 自動 允許誤差: 20%

資料長度: 1 Bit 傳送方向: MSB->LSB

封包長度: 1 第一個準位為: 1

位元右移: 0 Bit

匯流排協定顏色

Data [Color Selection]

確定 取消 預設值 說明

STEP 6. 鮑率設定，可勾選自動顯示或是使用者輸入。

Line Code匯流排協定

設定 | 封包 | 進制顯示 | 註冊

通道設定: A0

解碼設定: NRZI (Transition occurs for a one)

匯流排協定設定

鮑率: 1 bps ☒ 自動 允許誤差: 20%

資料長度: 1 Bit 傳送方向: MSB->LSB

封包長度: 1 第一個準位為: 1

位元右移: 0 Bit

匯流排協定顏色

Data [Color Selection]

確定 取消 預設值 說明



STEP 7. 允許誤差設定，可選 5%、10%、20%。

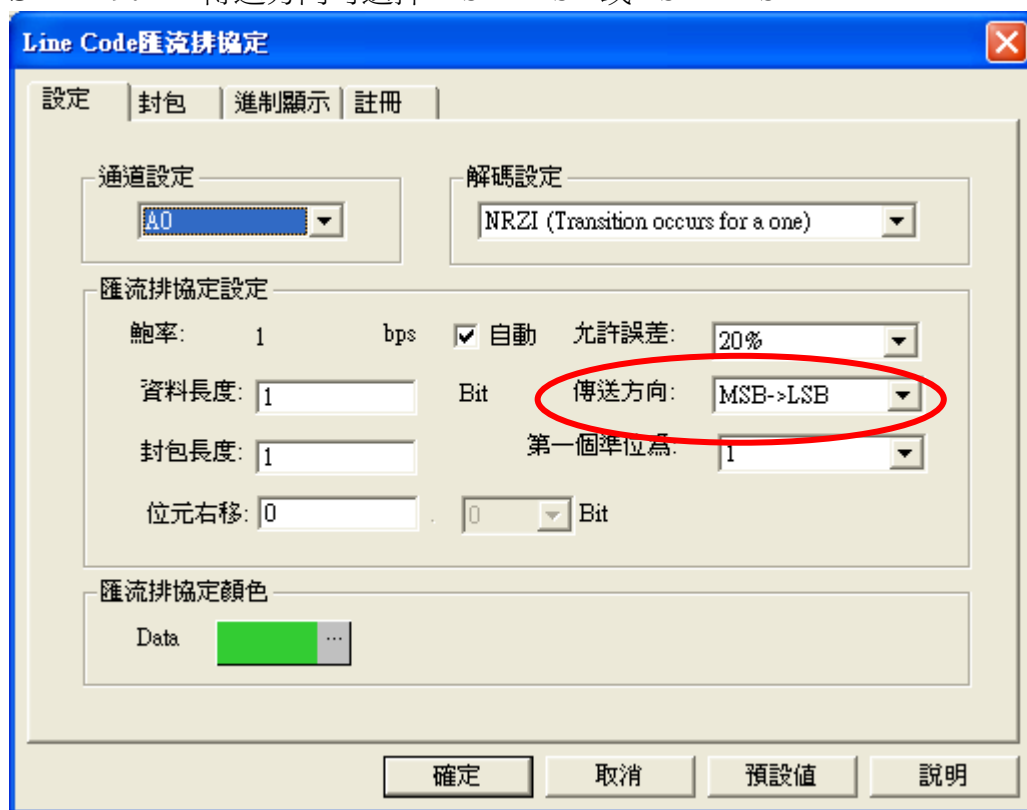
The dialog box 'Line Code匯流排協定' has tabs for '設定', '封包', '進制顯示', and '註冊'. The '設定' tab is active. It contains sections for '通道設定' (Channel Setting) with a dropdown set to 'A0', '解碼設定' (Decoding Setting) with a dropdown set to 'NRZI (Transition occurs for a one)', and '匯流排協定設定' (Bus Protocol Setting). In the '匯流排協定設定' section, the '允許誤差' (Allow Error) dropdown is set to '20%' and is circled in red. Other settings include '速率' (Rate) at 1 bps, '自動' (Auto) checked, '資料長度' (Data Length) at 1 Bit, '封包長度' (Packet Length) at 1, '傳送方向' (Transmission Direction) at 'MSB->LSB', '第一個準位為' (First Bit is) at 1, and '位元右移' (Bit Shift Right) at 0 Bit. A '匯流排協定顏色' (Bus Protocol Color) section shows 'Data' with a green color swatch. At the bottom are buttons for '確定' (OK), '取消' (Cancel), '預設值' (Default), and '說明' (Help).

STEP 8. 資料長度可設定 1~32 Bit，預設為 1 Bit。

This dialog box is identical to the one in Step 7, but the '資料長度' (Data Length) dropdown in the '匯流排協定設定' section is circled in red, showing it is set to '1 Bit'.

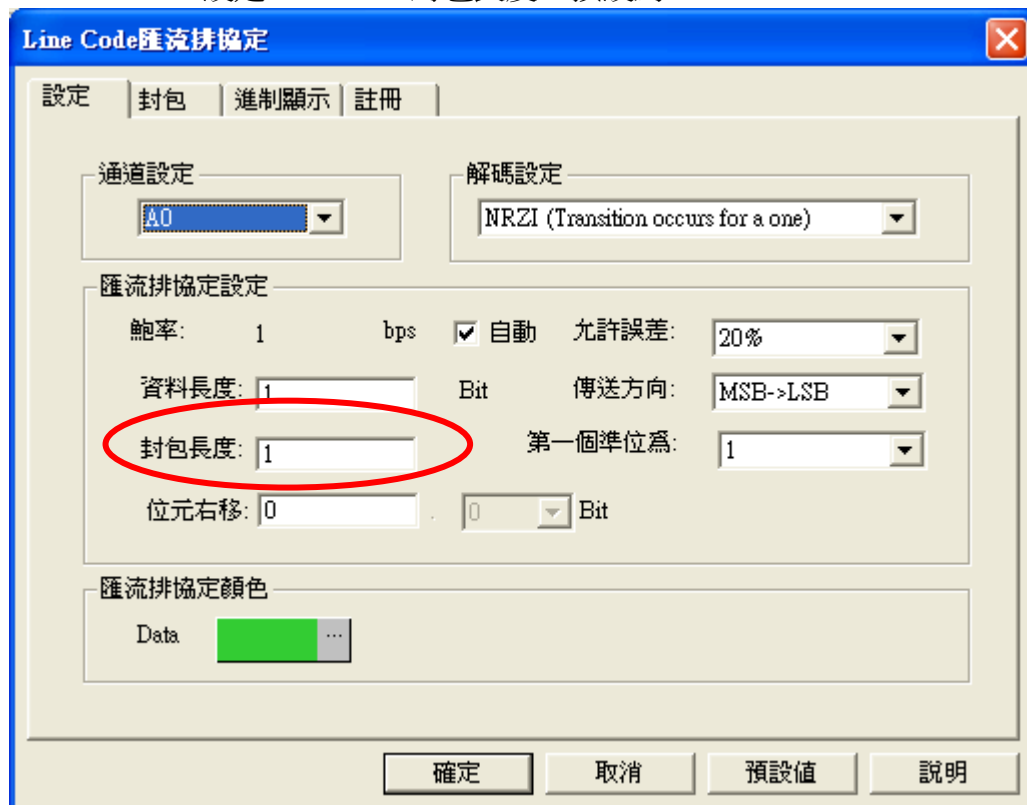


STEP 9. 傳送方向可選擇 MSB→LSB 或 LSB→MSB。



The dialog box titled "Line Code匯流排協定" has four tabs: "設定", "封包", "進制顯示", and "註冊". The "設定" tab is active. It contains several sections: "通道設定" with a dropdown menu showing "A0"; "解碼設定" with a dropdown menu showing "NRZI (Transition occurs for a one)"; "匯流排協定設定" with fields for "速率" (1), "bps", a checked "自動" checkbox, "允許誤差" (20%), "資料長度" (1), "Bit", "傳送方向" (MSB->LSB, circled in red), "封包長度" (1), "第一個準位為" (1), "位元右移" (0), and a "Bit" dropdown (0); and "匯流排協定顏色" with a "Data" color selection (green). At the bottom are buttons for "確定", "取消", "預設值", and "說明".

STEP 10. 設定 1~65532 封包長度，預設為 1。



The dialog box titled "Line Code匯流排協定" is shown again, with the "設定" tab active. In this step, the "封包長度" field in the "匯流排協定設定" section is circled in red, indicating it is the focus of the configuration. The "傳送方向" field remains circled from the previous step. All other settings are identical to the previous screenshot.



STEP 11. 選擇 NRZI (Transition occurs for a one)或 NRZI (Transition occurs for a zero)模式時，可設定第一個位為 0 或 1。

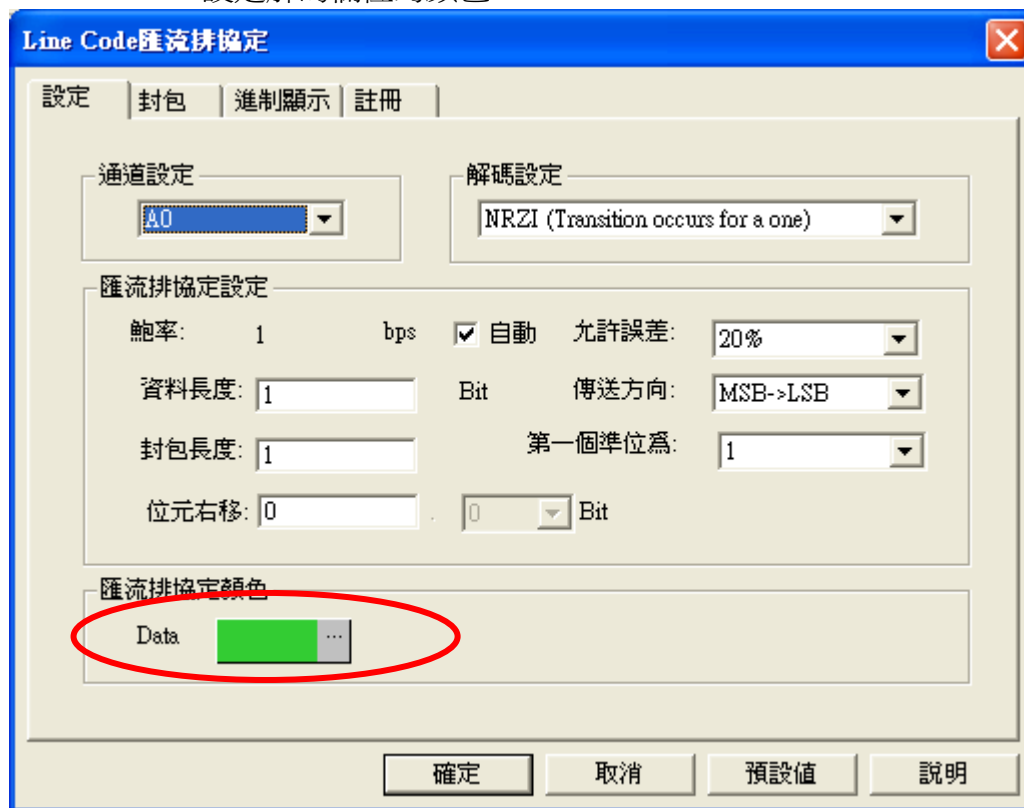
The dialog box 'Line Code匯流排協定' has tabs: 設定, 封包, 進制顯示, 註冊. The '設定' tab is active. It contains sections for '通道設定' (Channel Setting) with a dropdown set to 'A0', and '解碼設定' (Decoding Setting) with a dropdown set to 'NRZI (Transition occurs for a one)'. The '匯流排協定設定' (Bus Protocol Setting) section includes: '鮑率' (Baud Rate) set to 1 bps, '自動' (Auto) checked, '允許誤差' (Allow Error) set to 20%, '資料長度' (Data Length) set to 1 Bit, '傳送方向' (Transmission Direction) set to MSB->LSB, '封包長度' (Packet Length) set to 1, '第一個準位為' (First bit is) set to 1 (circled in red), and '位元右移' (Bit Right Shift) set to 0 Bit. The '匯流排協定顏色' (Bus Protocol Color) section shows 'Data' with a green color swatch. At the bottom are buttons: 確定, 取消, 預設值, 說明.

STEP 12. 位元右移設定。

The dialog box 'Line Code匯流排協定' is the same as in Step 11, but the '位元右移' (Bit Right Shift) field is now set to 0 (circled in red). All other settings remain the same.

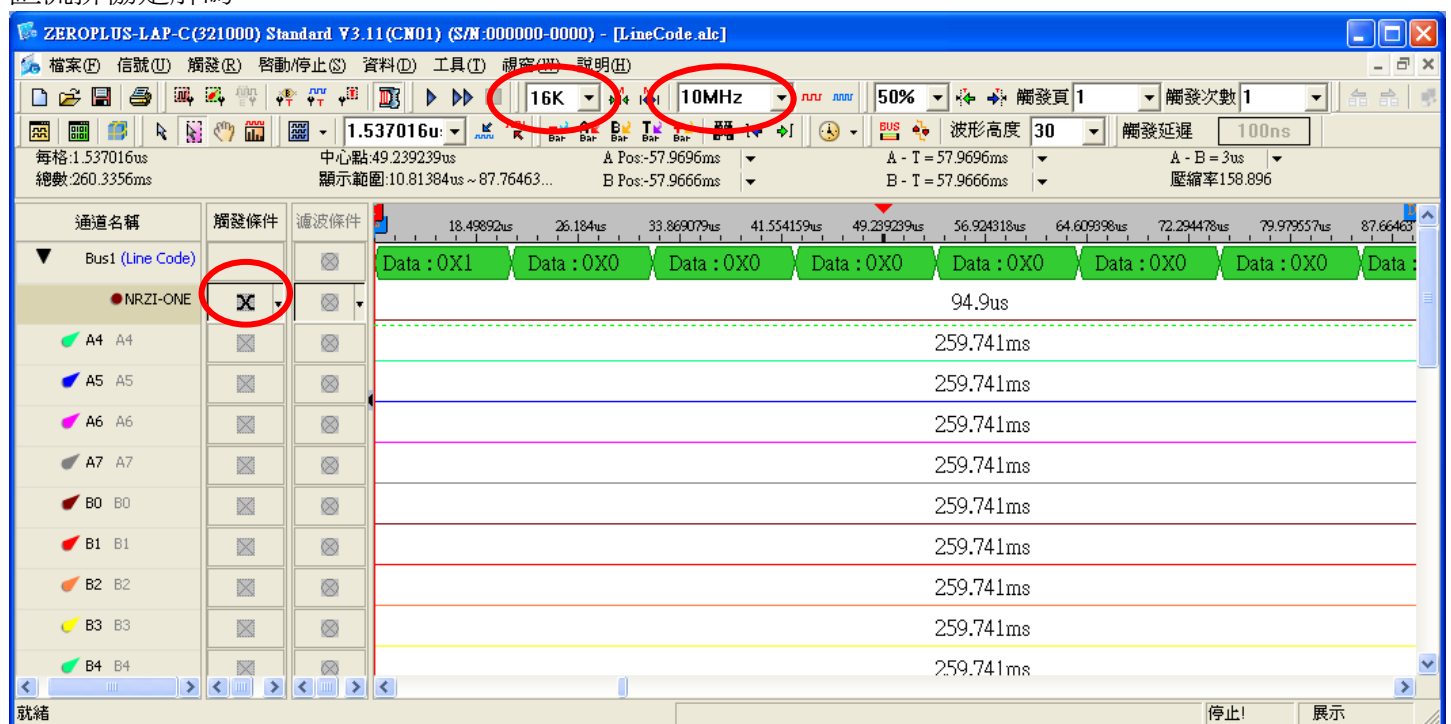


STEP 13. 設定解碼欄位的顏色。



STEP 14. 匯流排協定解碼完成圖示，設定條件為任一邊緣觸發、記憶體為 16K、取樣頻率為 10MHz。 (取樣頻率最好是速率的 10 倍以上)

匯流排協定解碼





封包列表

