



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

SPECIFICATION

MODEL: B12017-AES/EBU

PART NO : _____

VERSION : V1.00

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



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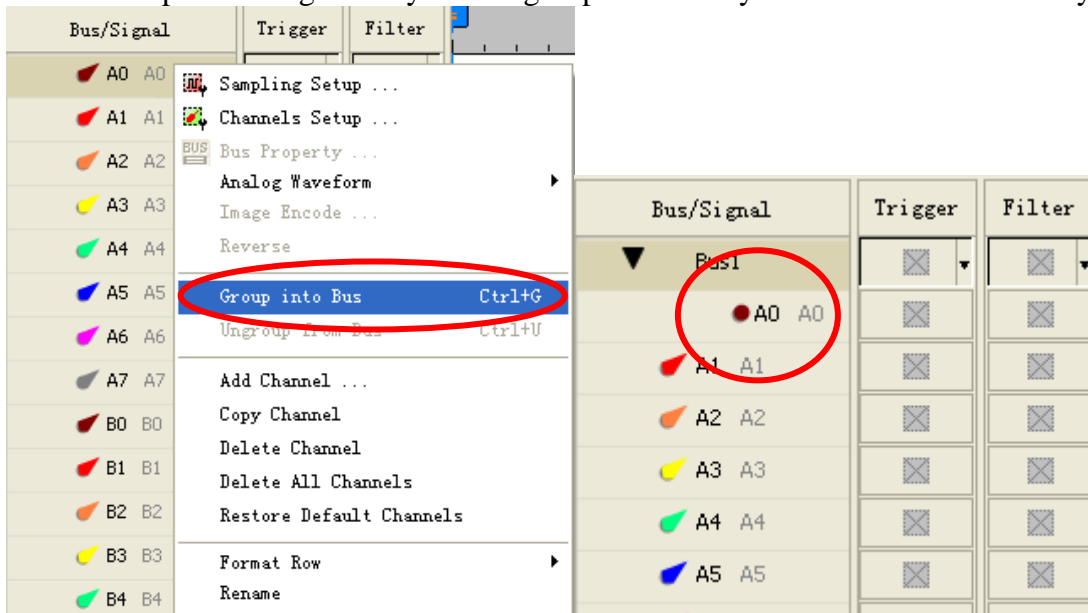
1 Software Register

Please register the software as the following steps:

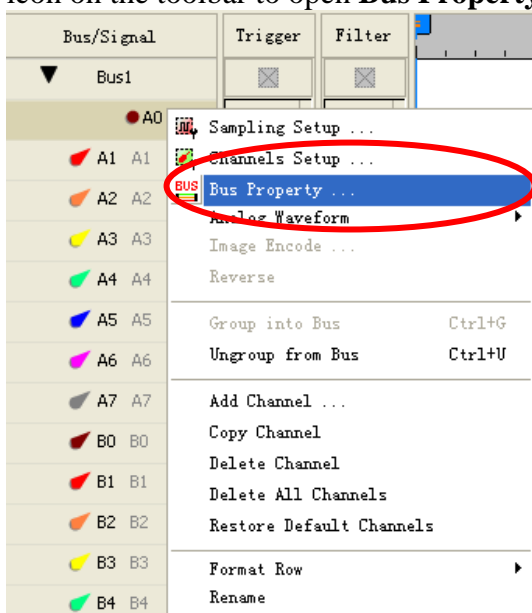
※ Remark1: The registration steps for all protocol analyzers are the same; you can complete the registration by following procedures. Following is an example on how to register the Protocol Analyzer BUS.

※ 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**.

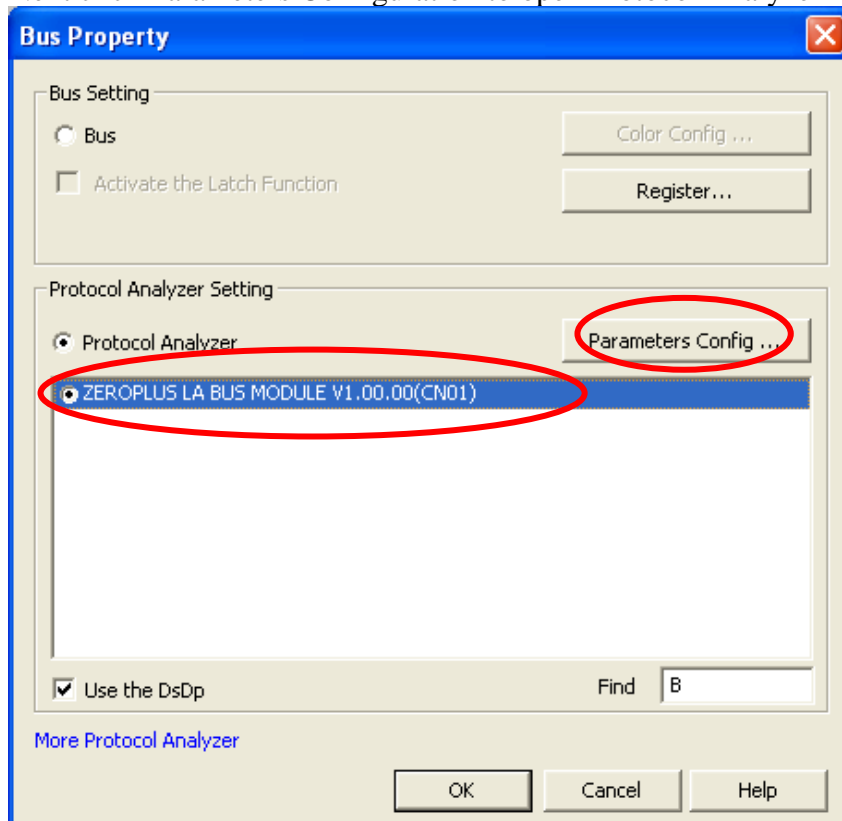


STEP 2. Select **Bus 1**, then press **Right Key** on the mouse to list the menu, then press **Bus Property** or **Bus** icon on the toolbar to open **Bus Property** dialog box.

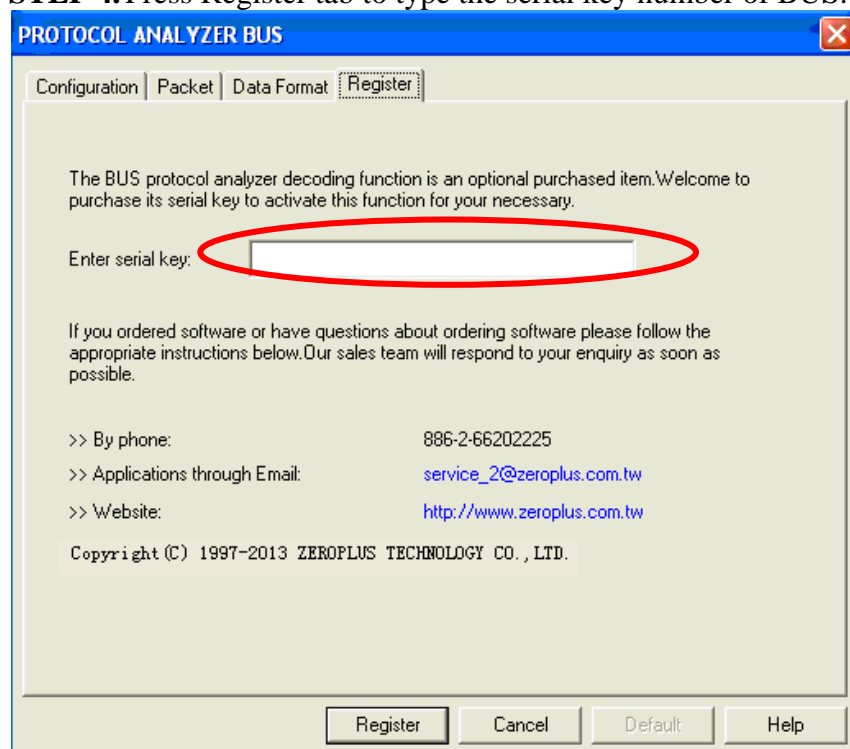




STEP 3. Select the Protocol Analyzer, and then choose **ZEROPLUS LA BUS MODULE V1.00.00 (CN01)**. Next click Parameters Configuration to open Protocol Analyzer Bus dialog box.

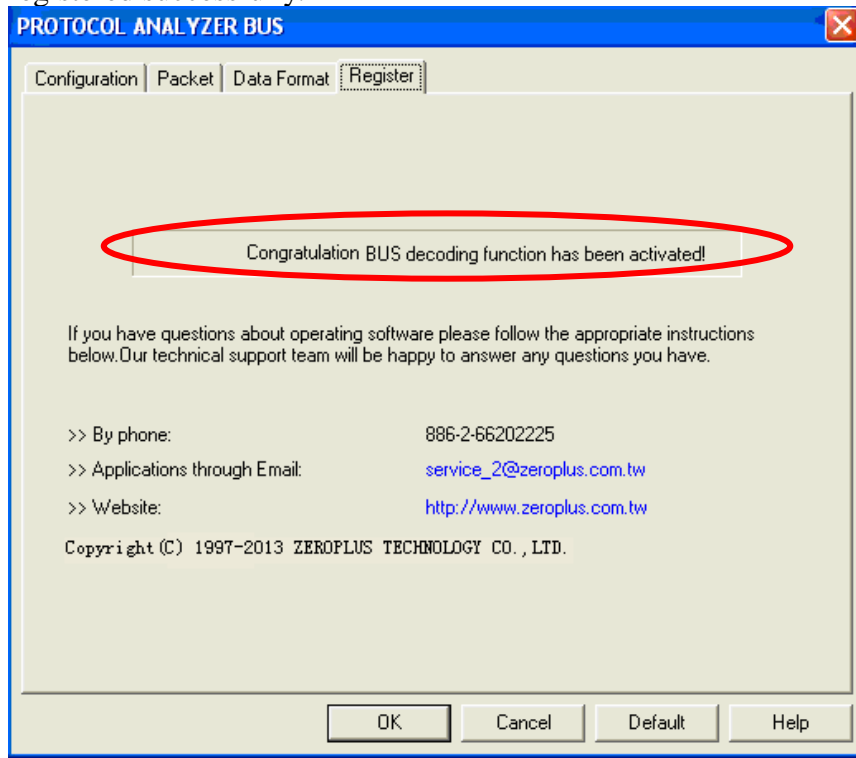


STEP 4. Press Register tab to type the serial key number of BUS. Then press Register.





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

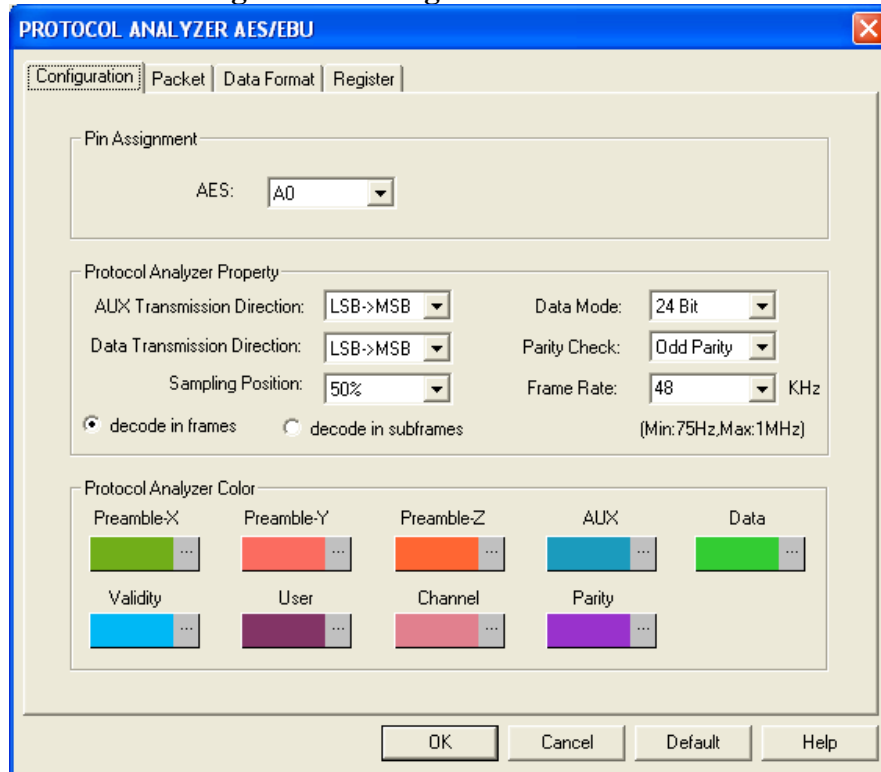




2 User Interface

Please refer to the below images to do settings of AES/EBU module.

AES/EBU Configuration dialog box



Pin Assignment:

AES only needs one channel, it is A0 by default.

AUX Transmission Direction and Data Transmission Direction:

There are only two items: LSB→MSB and MSB→LSB to be selected. It is LSB→MSB by default for both of them. Users cannot input any items but to select from them.

Sampling Position:

20%, 30%, 40%, 50%, 60%, 70% and 80% can be selected, it is 50% by default.

Data Mode:

Only two items (20 Bit and 24 Bit) can be selected, it is 24 Bit by default. Users cannot input any items but to select from them.

Parity Check:

Only two items (Odd Parity and Even Parity) can be selected, it is Odd Parity by default. Users cannot input any items but to select from them.

Frame Rate:

There are 48KHz, 44.1KHz and 32KHz to be selected, it is 48KHz by default. The input range is between 75 Hz and 1MHz.

Decode in frames:

The packet won't be drawn until two leading codes must be decoded in the decoding process. It is activated by default.



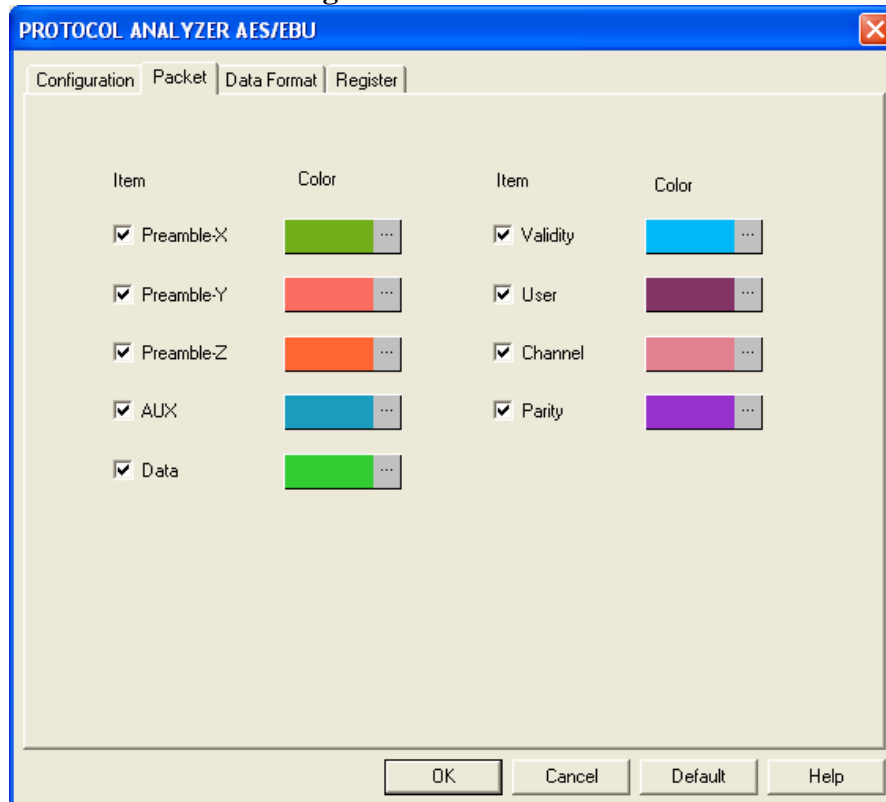
Decode in subframes:

Decode no matter what leading code is without considering whether it is in accord with the subframe or not, or draw Unknown packet. It is not activated by default.

Protocol Analyzer Color:

The color can be varied by users.

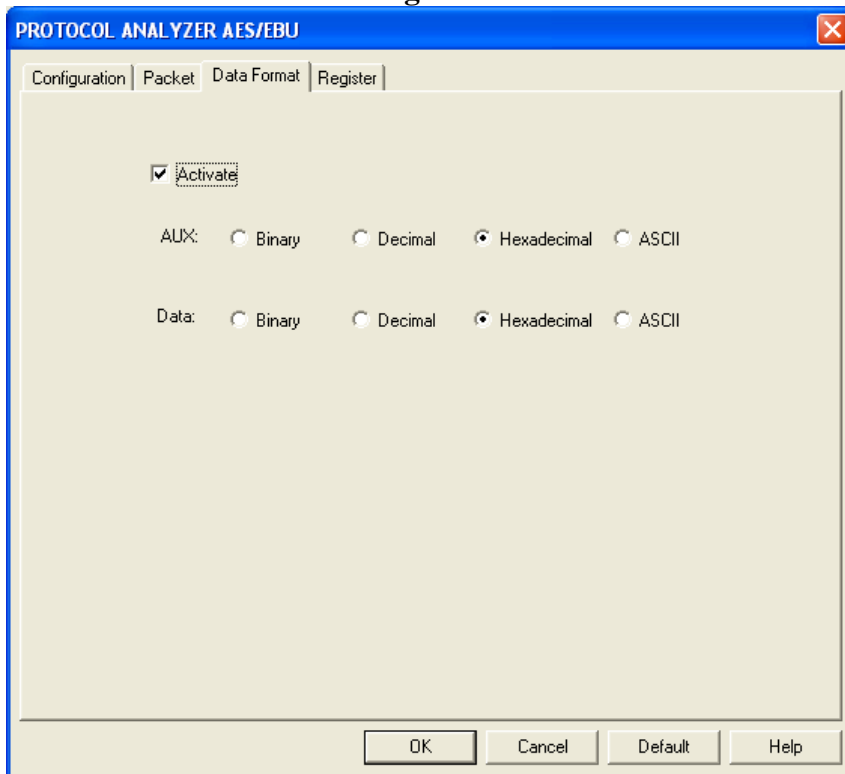
AES/EBU Packet dialog box



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

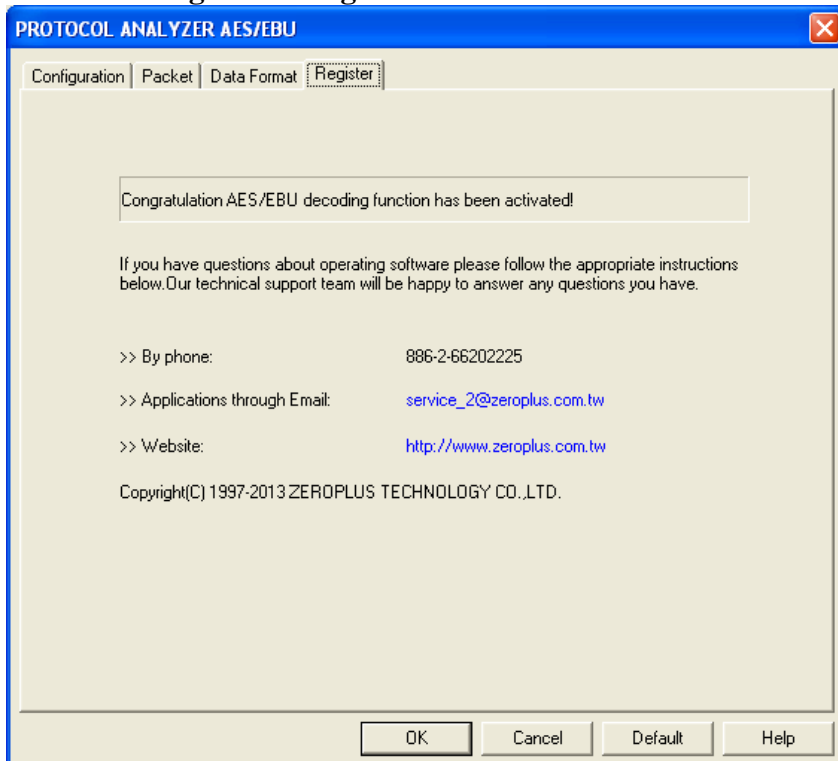


AES/EBU Data Format dialog box



Users can set the Data Format as their requirements. The two items (AUX and Data) 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 data format is decided by the settings in the main program.

AES/EBU Register dialog box

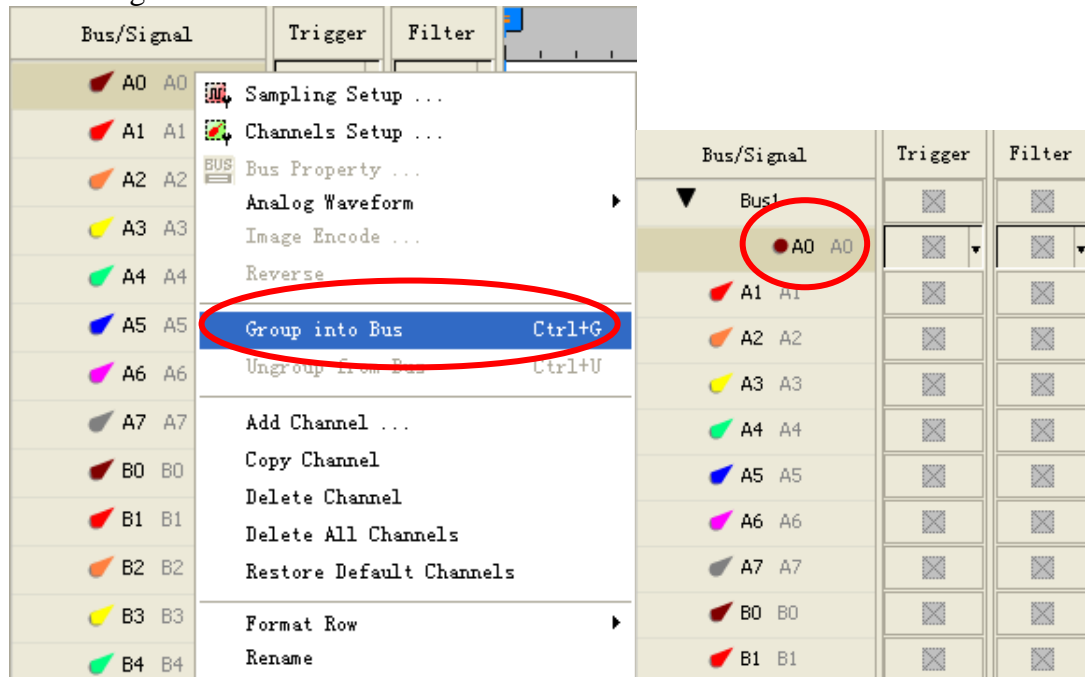


There is ZeroPlus company information. If you have questions about software operations, you can contact ZeroPlus by Telephone or Email.

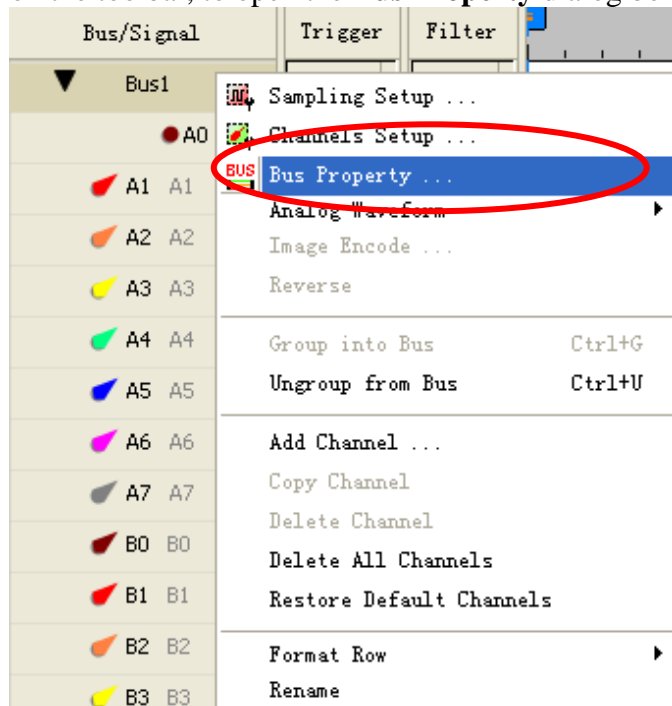


3 Operating Instructions

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

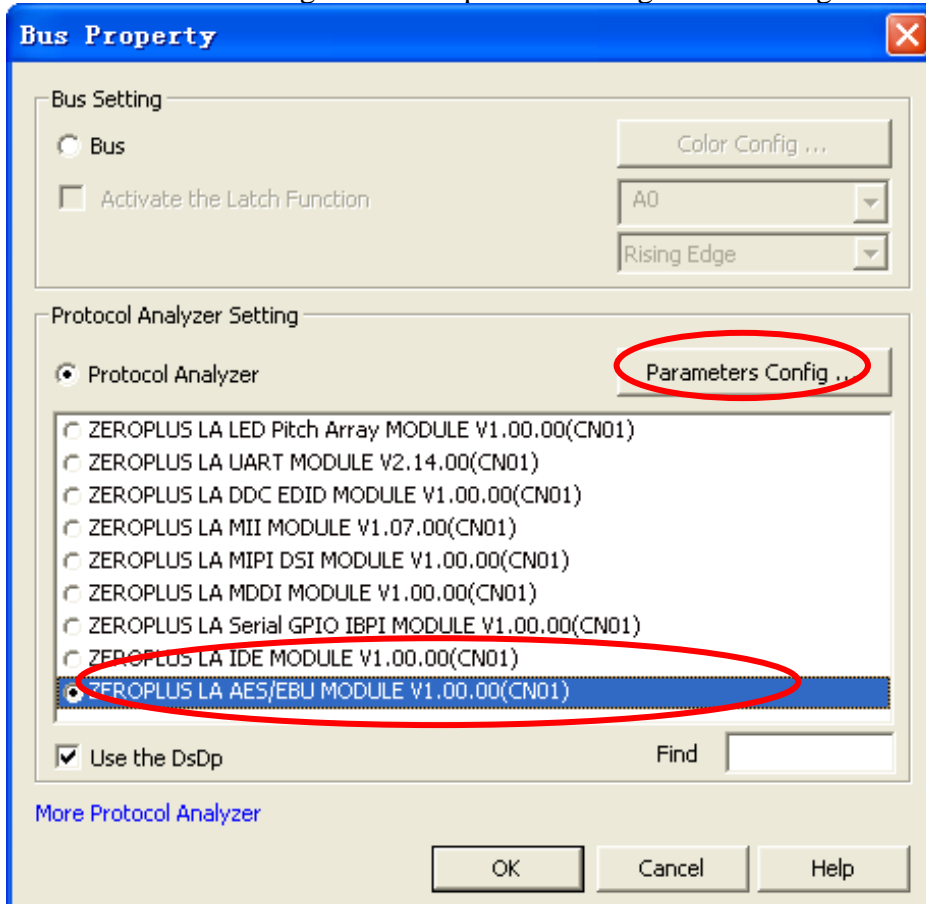


STEP 2. Select **Bus1**, press right key and select **Bus Property** from the popped menu, or click the **Bus** icon on the toolbar, to open the **Bus Property** dialog box.

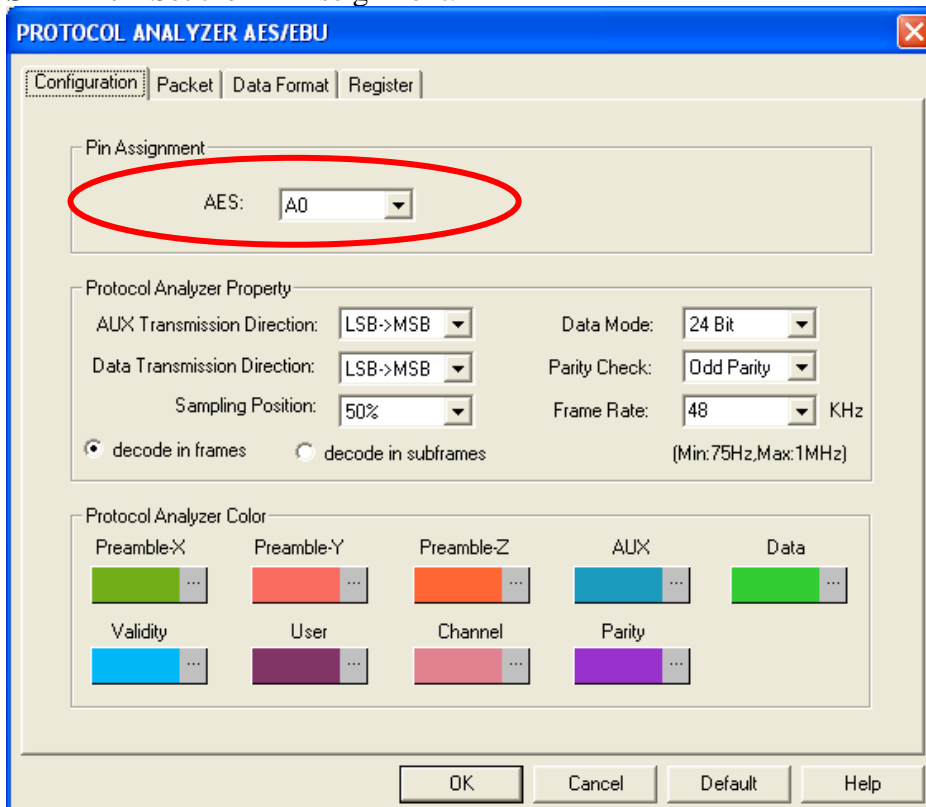




STEP 3. Select Protocol Analyzer, and select ZEROPLUS LA AES/EBU MODULE V1.00.00 (CN01). Then click Parameters Configuration to open the Configuration dialog box.

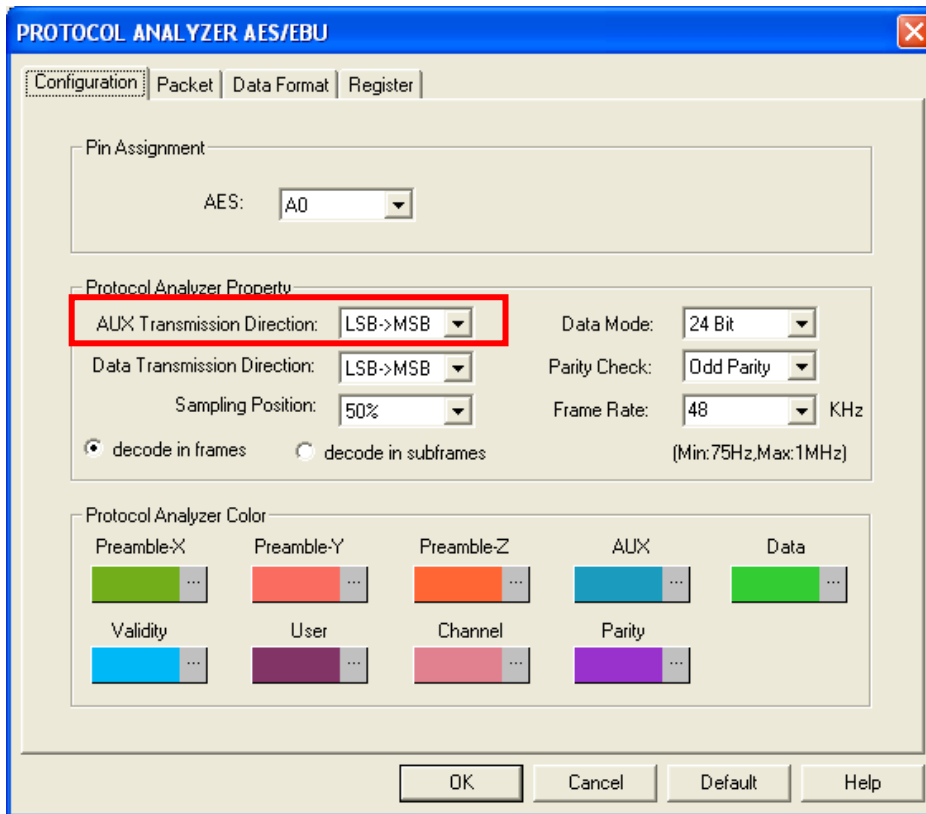


STEP 4. Set the Pin Assignment.

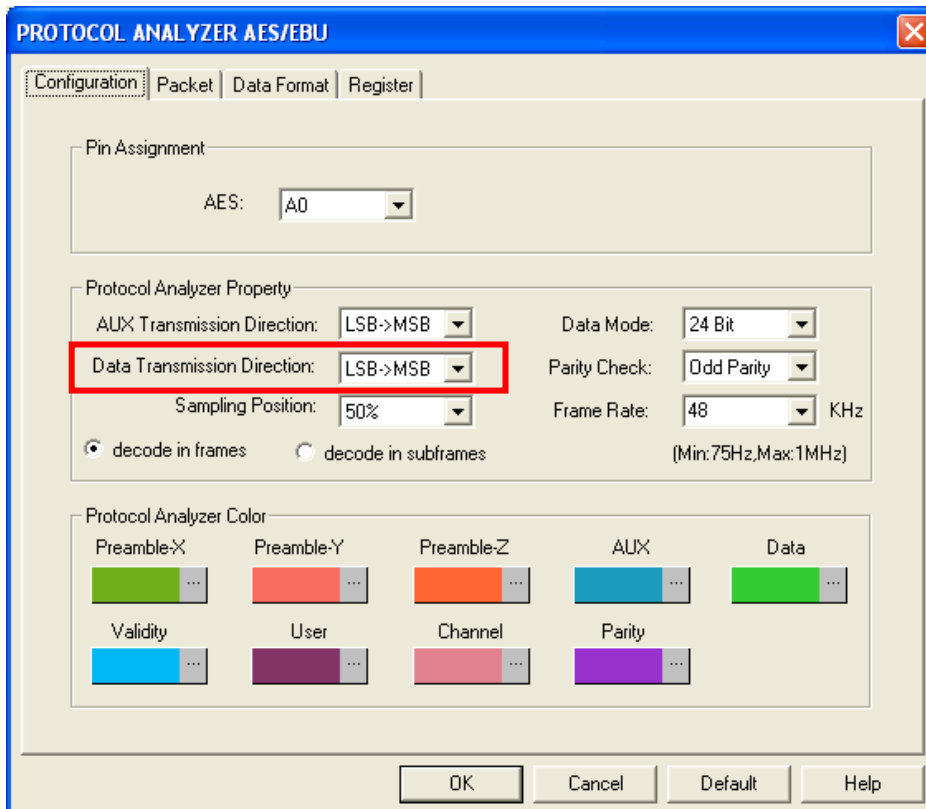




STEP 5. Set the AUX Transmission Direction.



STEP 6. Set the Data Transmission Direction.





STEP 7. Set the Data Mode.

The screenshot shows the 'PROTOCOL ANALYZER AES/EBU' window with the 'Configuration' tab selected. The 'Data Mode' dropdown is highlighted with a red box and set to '24 Bit'. Other settings include 'AES: A0', 'AUX Transmission Direction: LSB->MSB', 'Data Transmission Direction: LSB->MSB', 'Sampling Position: 50%', 'Parity Check: Odd Parity', and 'Frame Rate: 48 KHz'. The 'Protocol Analyzer Color' section shows color swatches for Preamble-X, Preamble-Y, Preamble-Z, AUX, Data, Validity, User, Channel, and Parity. The 'OK', 'Cancel', 'Default', and 'Help' buttons are at the bottom.

STEP 8. Set the Parity Check.

The screenshot shows the 'PROTOCOL ANALYZER AES/EBU' window with the 'Configuration' tab selected. The 'Parity Check' dropdown is highlighted with a red box and set to 'Odd Parity'. Other settings include 'AES: A0', 'AUX Transmission Direction: LSB->MSB', 'Data Transmission Direction: LSB->MSB', 'Sampling Position: 50%', 'Data Mode: 24 Bit', and 'Frame Rate: 48 KHz'. The 'Protocol Analyzer Color' section shows color swatches for Preamble-X, Preamble-Y, Preamble-Z, AUX, Data, Validity, User, Channel, and Parity. The 'OK', 'Cancel', 'Default', and 'Help' buttons are at the bottom.



STEP 9. Set the Sampling Position.

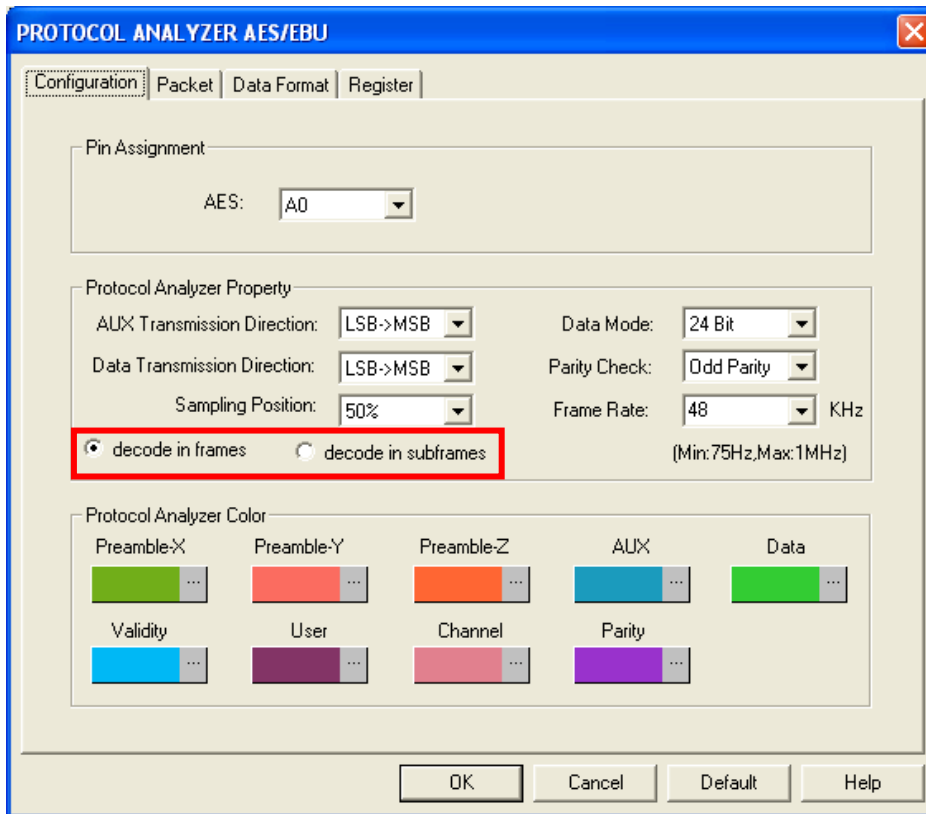
The screenshot shows the 'PROTOCOL ANALYZER AES/EBU' dialog box with the 'Configuration' tab selected. The 'Pin Assignment' section shows 'AES: A0'. The 'Protocol Analyzer Property' section contains several settings: 'AUX Transmission Direction' is 'LSB->MSB', 'Data Mode' is '24 Bit', 'Data Transmission Direction' is 'LSB->MSB', 'Parity Check' is 'Odd Parity', and 'Frame Rate' is '48 KHz'. The 'Sampling Position' dropdown menu is highlighted with a red rectangle and set to '50%'. Below these settings are radio buttons for 'decode in frames' (selected) and 'decode in subframes'. The 'Protocol Analyzer Color' section shows color swatches for Preamble-X, Preamble-Y, Preamble-Z, AUX, Data, Validity, User, Channel, and Parity. At the bottom are 'OK', 'Cancel', 'Default', and 'Help' buttons.

STEP 10. Set the Frame Rate.

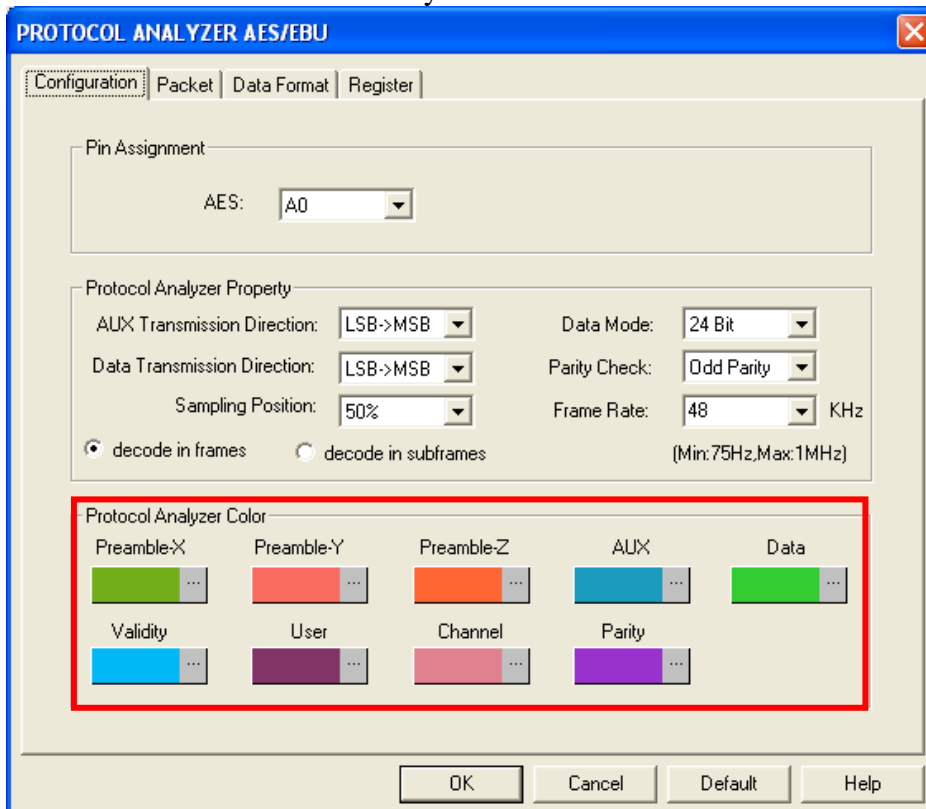
This screenshot is identical to the one for Step 9, showing the same 'PROTOCOL ANALYZER AES/EBU' dialog box. In this step, the 'Frame Rate' dropdown menu in the 'Protocol Analyzer Property' section is highlighted with a red rectangle and set to '48 KHz'. All other settings and the overall layout remain the same.



STEP 11. Select to decode in frames or in subframes.



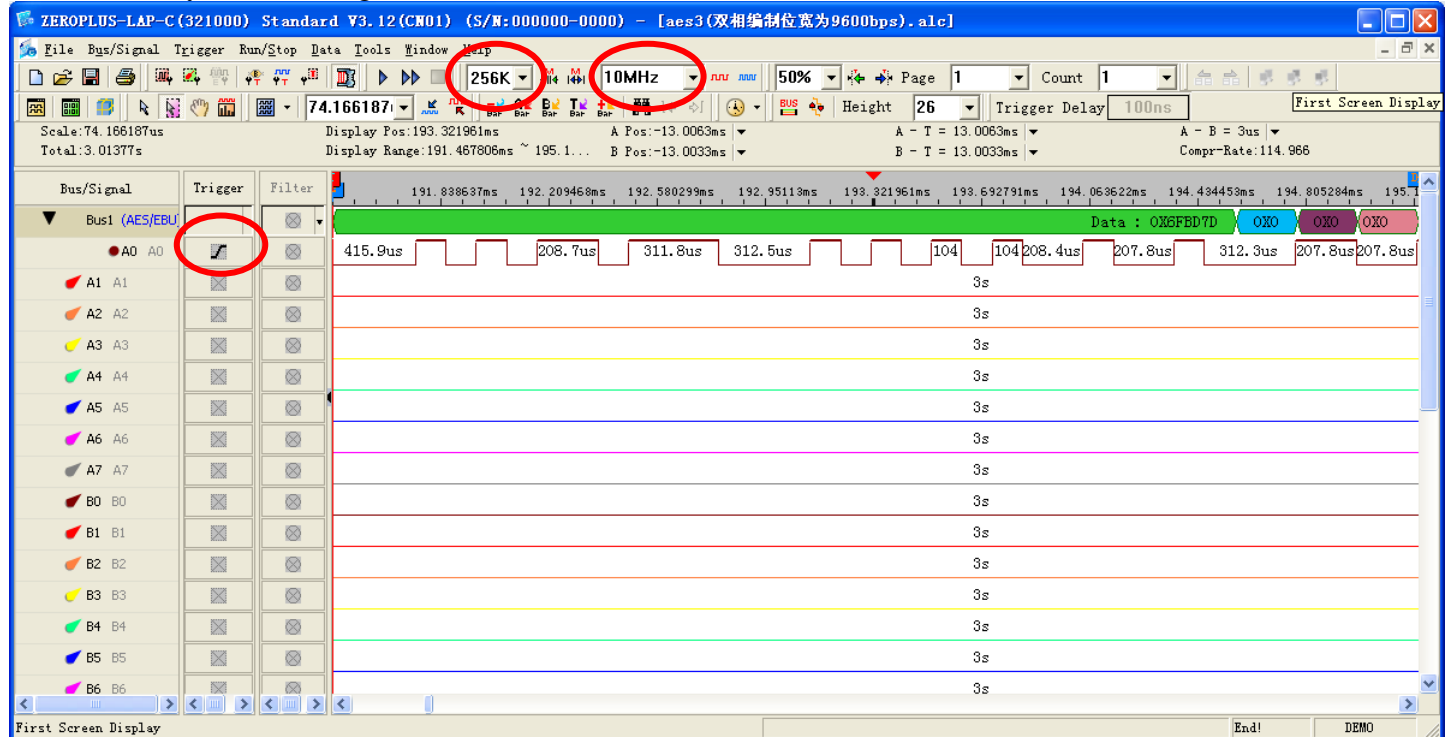
STEP 12. Set the Protocol Analyzer Color.





STEP 13. 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 256K and the sampling frequency is 10MHz (the sampling frequency should be more than four times higher than the signal to be tested).

Protocol Analyzer Decoding





Packet List

