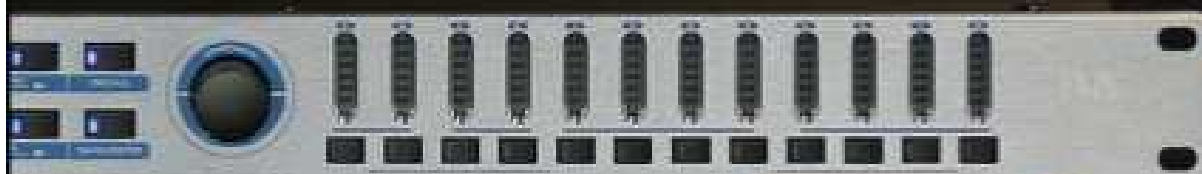




DIGITAL SPEAKER MANAGEMENT

# PRO-36DX & PRO-48DX



# CONTENT

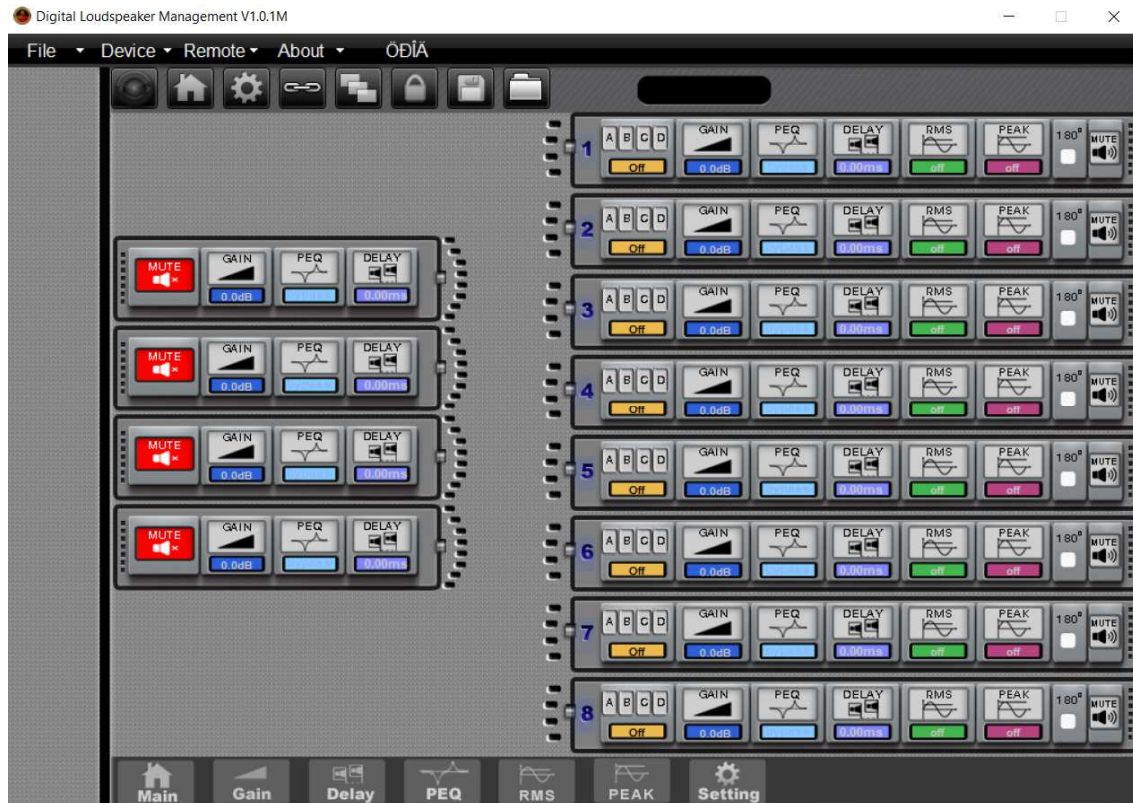
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## 1. Software Introduction

Digital Loudspeaker Management V1.0M is for IVA Digital Processor 4IN8OUT/3IN6OUT. It can complete the modification of several processors of the same model and the three mixed models altogether via 485 communication.

## 2. MAIN WINDOW DESCRIPTION

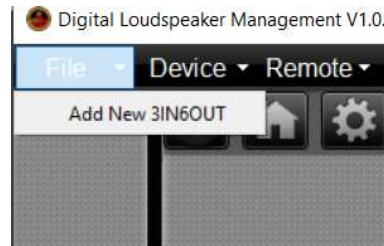
### 2.1 Main Window Illustrate 4IN8OUT



Picture 1.1 4IN8OUT Main View

### 2.2 Menu

#### 2.2.1 File Menu



Picture 2.2.1 File Menu

Automatic adding ID or manual adding ID is on your choice for adding new models.

#### 2.2.2 Remote Menu

Open or disconnect the practicable serial ports automatically

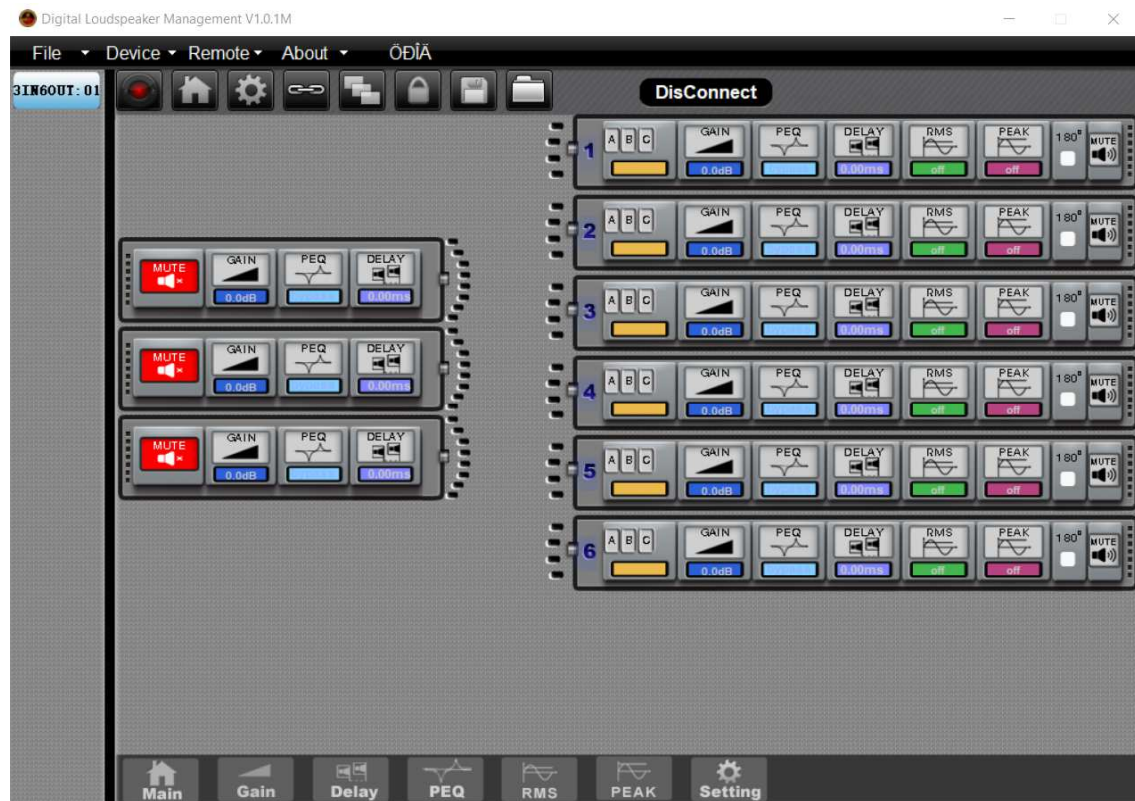
#### 2.2.3 Device Menu

Search the online devices automatically and the result will show in the option area. The existing model in Option Area will get Online if the device is found. The model will be added into Option area automatically if the model doesn't exist in the area.

## 2.3 Option Area

12 devices are showed in one page. Additional view page is needed if the device is more than 12pcs.

### 2.3.1 MAIN VIEW 3IN6OUT



Picture 2.3.1 2IN6OUT Main View

## 2. Submenu



Choose the device in Option Area and then do the operation in the submenu.

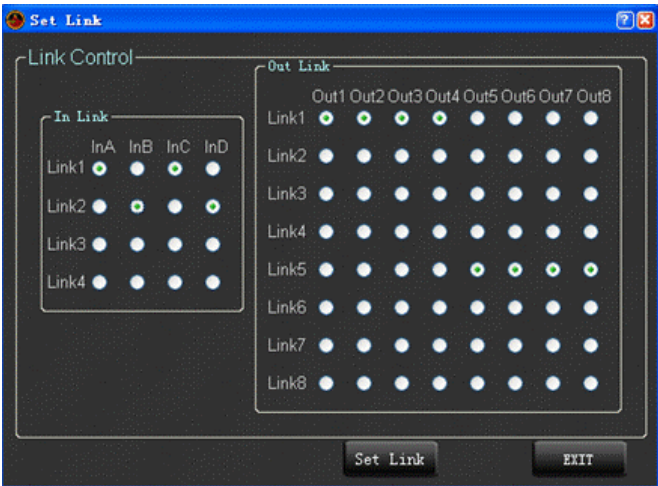
The Function from the left to right are: Connection, Return Main View, Return SettingView, SetLink、SetCopy、SetLock、Save, Load.

## 3. Submenu Function Description

### 3.1 Connection

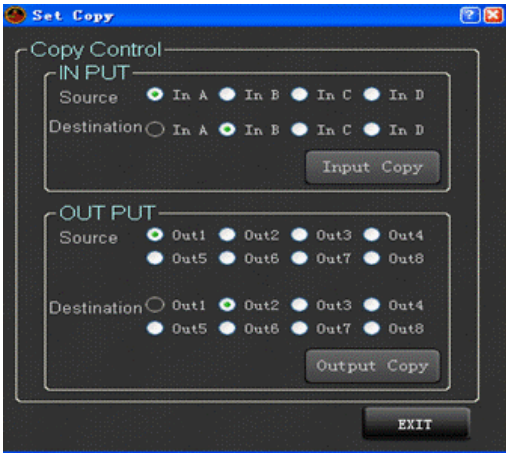
The icon is RED at disconnection and it gets green on connection. The data will be read at connection from the device and the view display will be updated.

### 3.2 SetLink



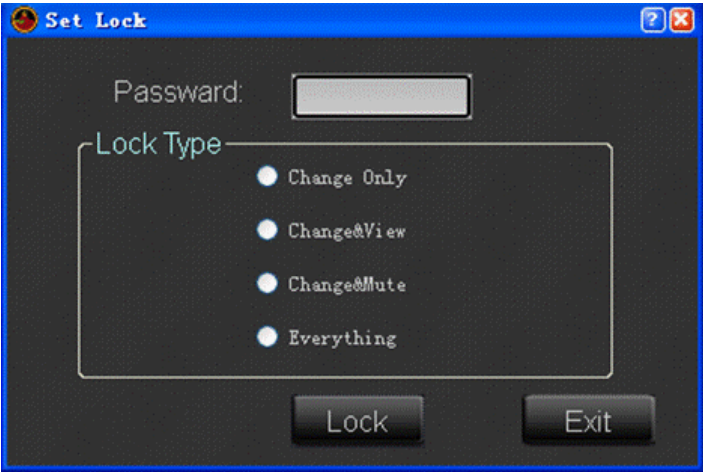
When the link is set, the data will be derived and the view will be updated. The related parts on the view will be changed at the same time.

### 3.3. SetCopy



After setting COPY, the data from the device will be load in and the view is updated.

### 3.4 SetLock



There are different LOCK TYPE. If LOCK is set, the lock function will be operated and showed on all view. The following picture is LOCK TYPE Everything.





#### 4. SetView Page Description

##### 4.1 SettingView

The screenshot shows the 'SettingView' software interface. It is divided into several sections:
 

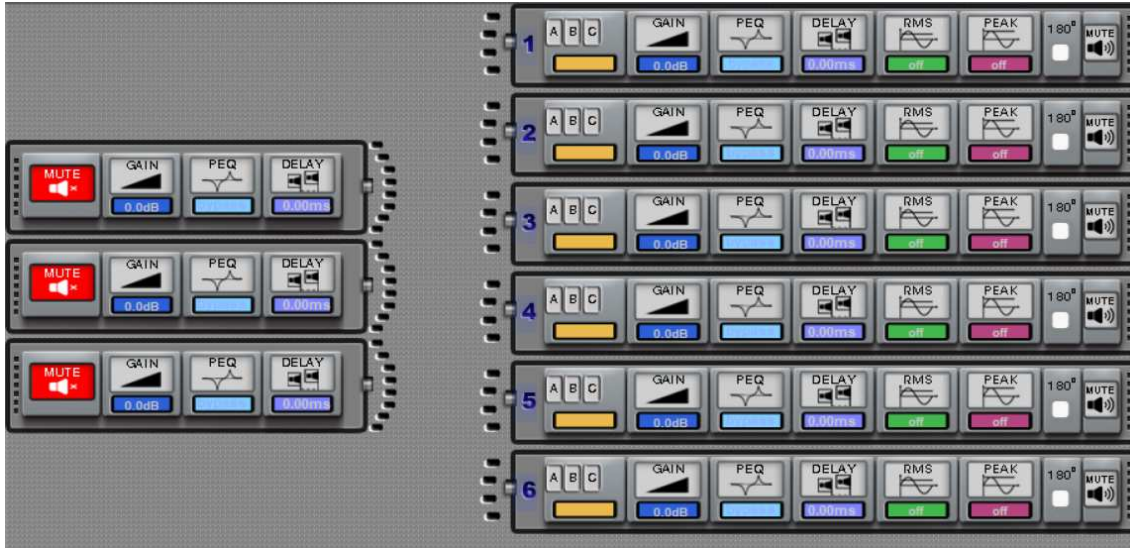
- Device Info:** Includes fields for 'Device Type' (3IN6OUT), 'Device ID' (1), and 'Connect Status' (Disconnect). A 'Connect' button is also present.
- Set Lock:** Includes a 'Device Lock' field and a 'Set Lock' button.
- Set Copy/Link Control:** Includes 'Set Copy' and 'Set link' buttons.
- Set New Logo:** Includes a 'Load Logo' button.
- Program Manager:** Includes a 'User Program' and 'Preset Program' tab, a 'NAME' column, and a 'Refresh' button.
- Connect Info:** Includes fields for 'Program Number', 'Current Data' (PC Init Data), and 'Program Name' (PROGRAM).

##### 4.2 Program Manager

Program Manager can manage all the operation including load, save, delete, recover, save from device to pc, and download from PC to device.

## 5. Main View Description

### 5.1 MainView



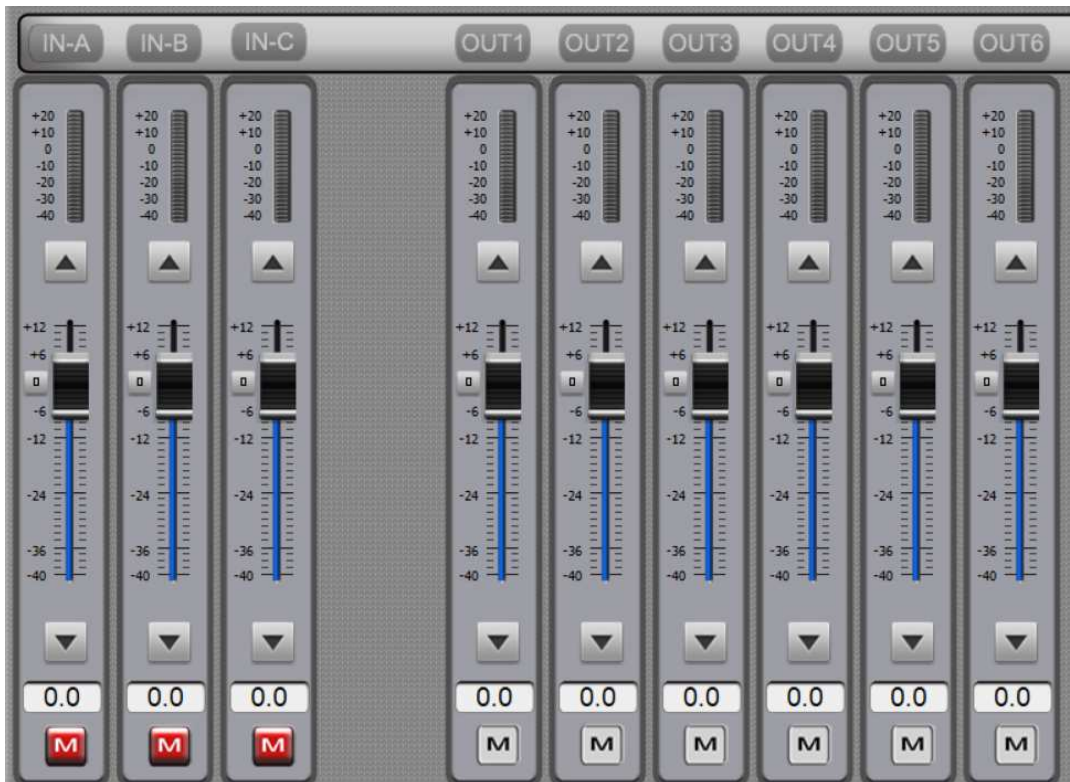
The data of all the channels is displayed.

### 5.2 Operable parts

Other operable parts Mute, 180°Phase Option, Input/output Signal Option. Click the key and the related VIEW will opened for operation. The input and output signal will not be processed after LINK is set.

## 6. GainView Description

### 6.1 GainView



## 6.2 Gain Operation

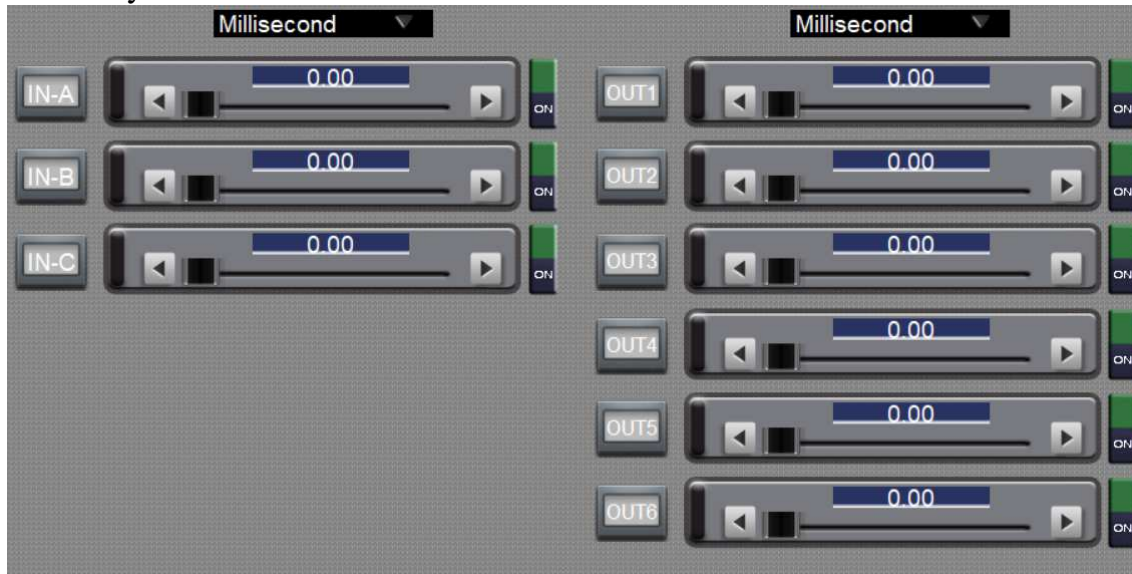
When opening Gain View, the light bar at the bottom will show the level of each channel. The operation result is got after sending data to the device for inquiry.

Fill in Edit Bar can operate Level as well.

There are two types LOCK. One is Lock all the control except MUTE button on the bottom. The other is Lock all

## 7. Delay View Description

### 7.1 Delay View



### 7.2 Delay Description

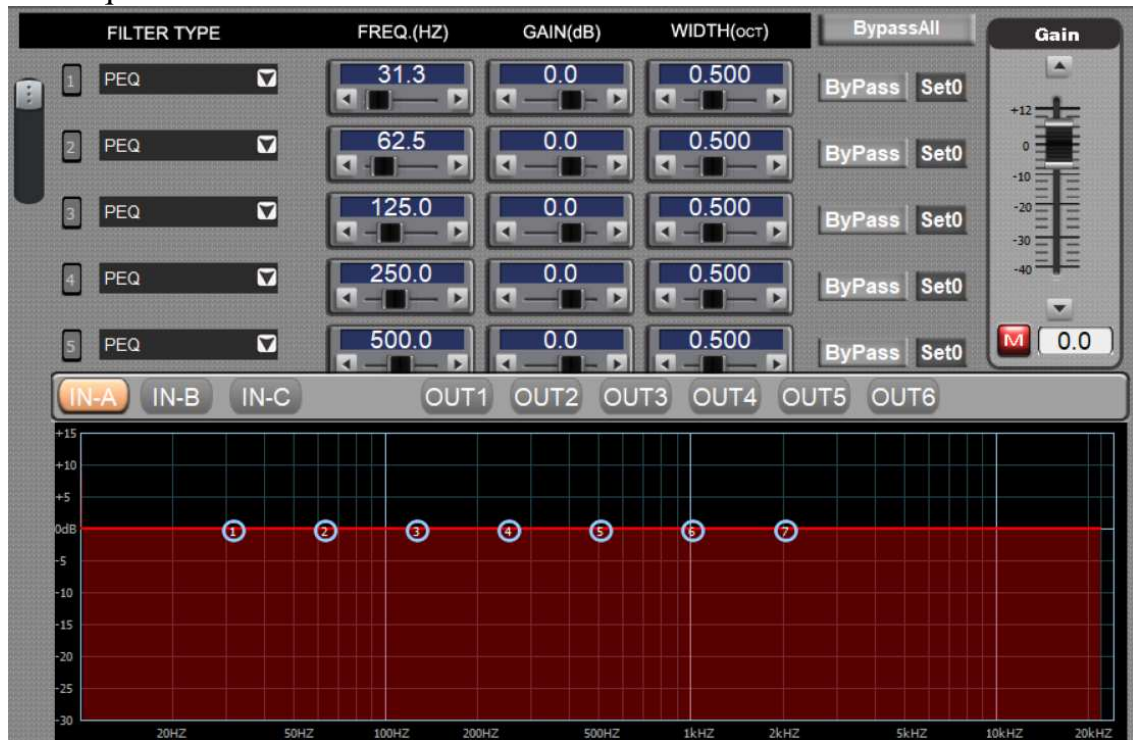
Milliseconds meters feet of each channel are related. One value is sent to the device and then three values got displayed after function conversion

More control will change at LINK.



## 8. PeqView Description

### 8.1 PeqView IN



### 8.2 PeqView Function Description

There are 9 setting points for each channel. Other four points will show via the clipper on the left. The dot on the curve can operate FREQ and GAIN.

There are six options at the bottom FILTER TYPE.

When PEQ is chosen, FREQ, GAIN and WIDTH can be operated normally.

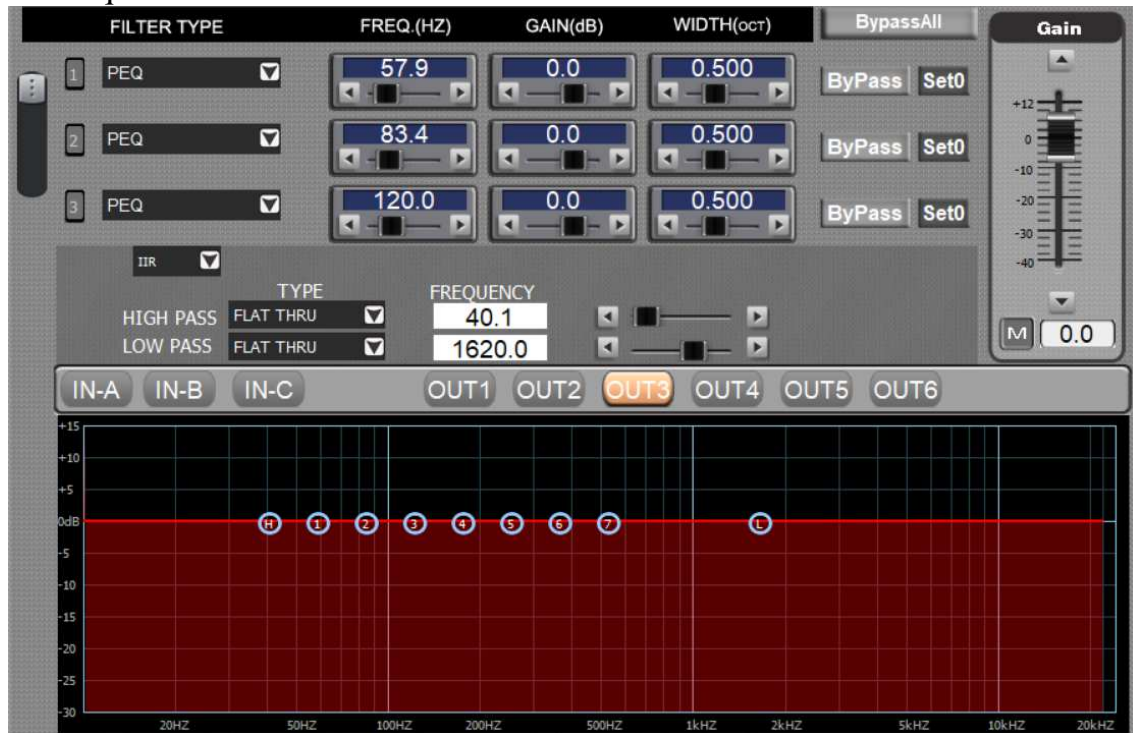
When L\_shelf6dB and L\_shelf12dB are chosen, FREQ between 19.7 and 2000.0 and WIDTH cannot be operated.

When Phase is chosen, FREQ between 35.1 and 16000.0, GAIN cannot be operated AND WIDTH shows the phase value 0-178)

The dot operation cannot cross boundary because each dot is connected with the control at the bottom.

The value of GAIN and DELAY can be changed via the view.

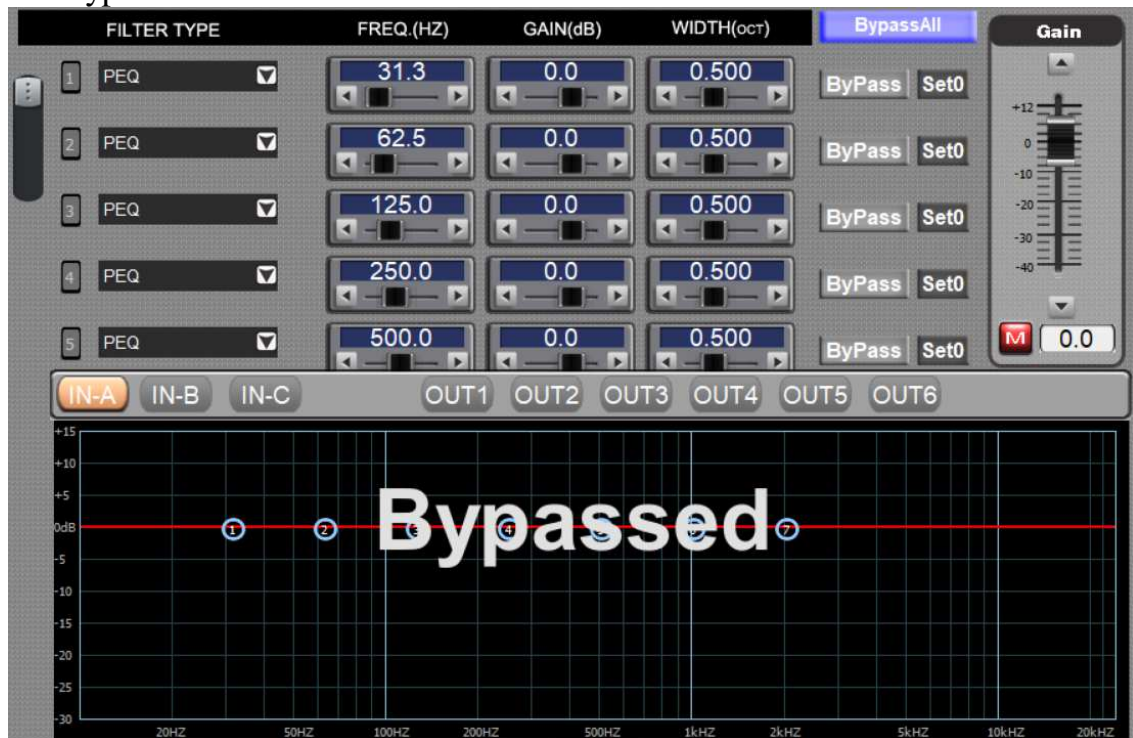
### 8.3 PeqView OUT VIEW



### 8.4 PeqView OUT Function Description

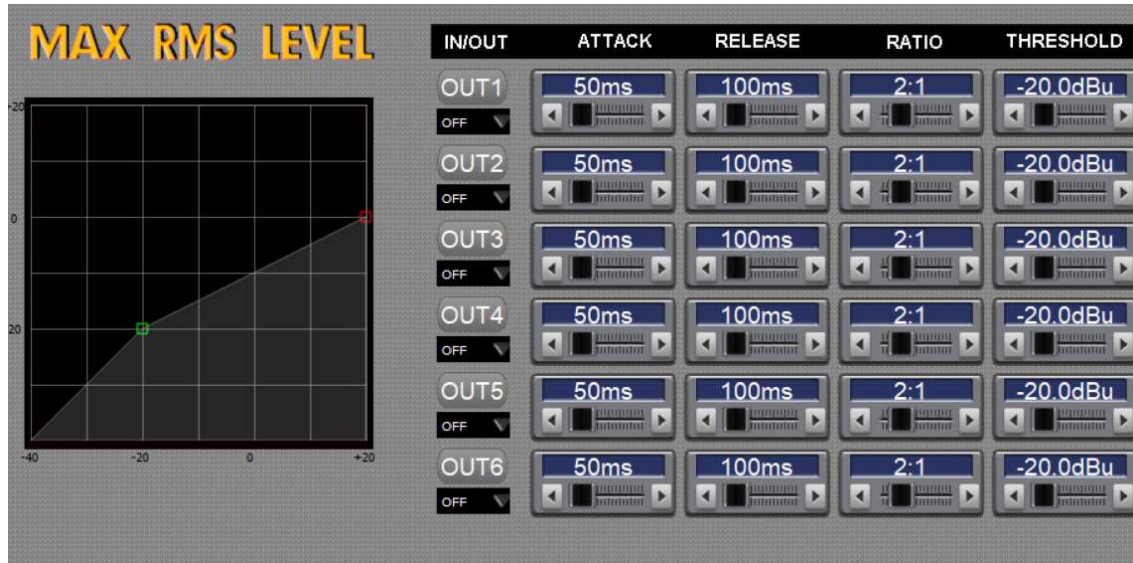
LOWPASS and HIGHPASS is only on OUT VIEW, not on IN VIEW. They are curved related with the two dots.

### 8.5 BypassAll



## 9. COMPRESS DESCRIPTION

### 9.1 COMPRESS



### 9.1 COMPRESS FUNCTION DESCRIPTION

The curve on the left is related with RATIO and THRESHOLD.

OUT1-4 and OUT5-8 is additional for 4IN8OUT for the display of OUT channel.

## 10. OTHER FUNCTION

### 10.1 Online Operation 1:

- 1 Device->Find Online
- 2 Choose the device in Option Area eg. 4IN8OUT:01
- 3 Click CONNECTION in Submenu

### 10.2 Online Operation 1

- 1、File->Add New...
- 2、Click CONNECTION in Submenu

### 10.3 The View of other models

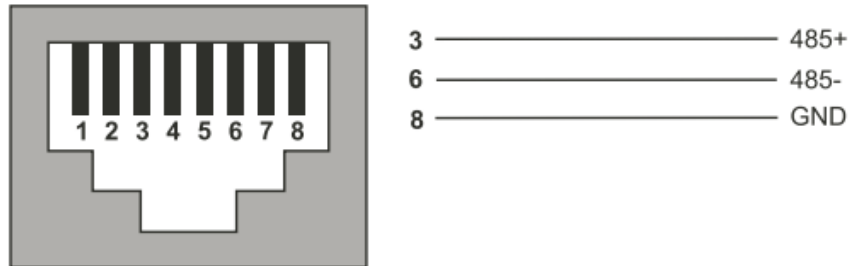
Please click the software for the related different display.

## 11.4 4IN8OUT/2IN6OUT/2IN4OUT Serial Port Communication Protocol

Protocol Format: 38400 band, 8bit data, 1 stop bit 。

Remark : except connection order , others orders must be under connection condition and be available。

1. connection order :(remark: Data for hexadecimal number )



Communication method: The baud rate is fixed at 38400,8-bit data, with 1 stop bit and no checksum bit.

| Control content   | Control code (hexadecimal code) |
|-------------------|---------------------------------|
| INA volume inc    | AA BB CC A1 DD EE FF            |
| INA volume dec    | AA BB CC A2 DD EE FF            |
| INA volume mute   | AA BB CC A3 DD EE FF            |
| INA volume unmute | AA BB CC A4 DD EE FF            |
| INB volume inc    | AA BB CC B1 DD EE FF            |
| INB volume dec    | AA BB CC B2 DD EE FF            |
| INB volume mute   | AA BB CC B3 DD EE FF            |
| INB volume unmute | AA BB CC B4 DD EE FF            |
| INC volume inc    | AA BB CC C1 DD EE FF            |
| INC volume dec    | AA BB CC C2 DD EE FF            |
| INC volume mute   | AA BB CC C3 DD EE FF            |
| INC volume unmute | AA BB CC C4 DD EE FF            |
| IND volume inc    | AA BB CC D1 DD EE FF            |
| IND volume dec    | AA BB CC D2 DD EE FF            |
| IND volume mute   | AA BB CC D3 DD EE FF            |
| IND volume unmute | AA BB CC D4 DD EE FF            |

|                    |                      |
|--------------------|----------------------|
| OUT1 volume inc    | AA BB CC 11 DD EE FF |
| OUT1 volume dec    | AA BB CC 12 DD EE FF |
| OUT1 volume mute   | AA BB CC 13 DD EE FF |
| OUT1 volume unmute | AA BB CC 14 DD EE FF |
| OUT2 volume inc    | AA BB CC 21 DD EE FF |
| OUT2 volume dec    | AA BB CC 22 DD EE FF |
| OUT2 volume mute   | AA BB CC 23 DD EE FF |
| OUT2 volume unmute | AA BB CC 24 DD EE FF |
| OUT3 volume inc    | AA BB CC 31 DD EE FF |
| OUT3 volume dec    | AA BB CC 32 DD EE FF |
| OUT3 volume mute   | AA BB CC 33 DD EE FF |
| OUT3 volume unmute | AA BB CC 34 DD EE FF |
| OUT4 volume inc    | AA BB CC 41 DD EE FF |
| OUT4 volume dec    | AA BB CC 42 DD EE FF |
| OUT4 volume mute   | AA BB CC 43 DD EE FF |
| OUT4 volume unmute | AA BB CC 44 DD EE FF |
| OUT5 volume inc    | AA BB CC 51 DD EE FF |
| OUT5 volume dec    | AA BB CC 52 DD EE FF |
| OUT5 volume mute   | AA BB CC 53 DD EE FF |
| OUT5 volume unmute | AA BB CC 54 DD EE FF |
| OUT6 volume inc    | AA BB CC 61 DD EE FF |
| OUT6 volume dec    | AA BB CC 62 DD EE FF |
| OUT6 volume mute   | AA BB CC 63 DD EE FF |
| OUT6 volume unmute | AA BB CC 64 DD EE FF |
| OUT7 volume inc    | AA BB CC 71 DD EE FF |
| OUT7 volume dec    | AA BB CC 72 DD EE FF |



|                       |                      |
|-----------------------|----------------------|
| OUT7 volume mute      | AA BB CC 73 DD EE FF |
| OUT7 volume unmute    | AA BB CC 74 DD EE FF |
| OUT8 volume inc       | AA BB CC 81 DD EE FF |
| OUT8 volume dec       | AA BB CC 82 DD EE FF |
| OUT8 volume mute      | AA BB CC 83 DD EE FF |
| OUT8 volume unmute    | AA BB CC 84 DD EE FF |
| Recall user program1  | AA BB CC F1 DD EE FF |
| Recall user program2  | AA BB CC F2 DD EE FF |
| Recall user program3  | AA BB CC F3 DD EE FF |
| Recall user program4  | AA BB CC F4 DD EE FF |
| Recall user program5  | AA BB CC F5 DD EE FF |
| Recall user program6  | AA BB CC F6 DD EE FF |
| Recall user program7  | AA BB CC F7 DD EE FF |
| Recall user program8  | AA BB CC F8 DD EE FF |
| Recall user program9  | AA BB CC F9 DD EE FF |
| Recall user program10 | AA BB CC FA DD EE FF |
| Recall user program11 | AA BB CC FB DD EE FF |
| Recall user program12 | AA BB CC FC DD EE FF |
| Recall user program13 | AA BB CC FD DD EE FF |
| Recall user program14 | AA BB CC FE DD EE FF |
| Recall user program15 | AA BB CC FF DD EE FF |

The processor successfully receives the command and returns a response code 5A after processing it.