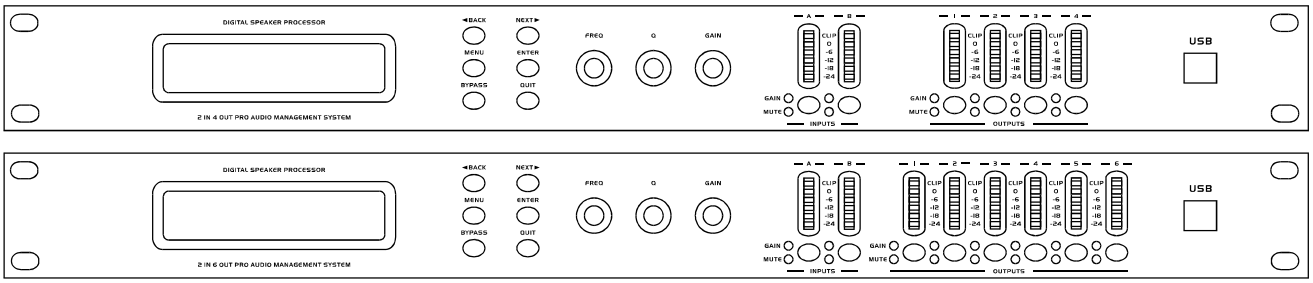
2 IN 4 OUT PRO AUDIO MANAGEMENT SYSTEM
2 IN 6 OUT PRO AUDIO MANAGEMENT SYSTEM



DP Sveries

AUDIO MANAGEMENT SYSTEM

USER MANUAL

IMPORTANT SAFETY INSTRUCTION

WARNING

When using electric products, basic precautions should always be followed:

1. Read all the SAFETY INSTRUCTIONS before using the product.
2. This product must be earthed. If it has malfunction or breaks down, grounding provides a path of least resistance for electric current to reduce risk of electric shock.
This product is equipped with a cord having an equipment-grounding conductor and a grounding plug. The plug must be plugged into an appropriate outlet that is properly installed and earthed in accordance with all local codes and ordinance.

DANGER - Improper connection of the equipment-grounding conductor can result in a risk of electric shock. Check with a qualified electrician or serviceman if you are in doubt as to whether the product is properly grounded. Do not modify the plug provided with the product - if it will not fit the outlet, have a proper outlet installed by a qualified electrician.

3. To reduce the risk of injury, close supervision is necessary when the product is used near children.
4. Do not use this product near water - for example, near a bathtub, washbowl, kitchen sink, in wet basement or near a swimming pool or the lake.
5. This product may be capable of producing sound levels that could cause permanent hearing loss. Do not operate for a long period of time at high volume level or at a level that is uncomfortable. If you experience any hearing loss or ringing in the ears, you should consult an audiologist.
6. This product should be located so that its location or position does not interfere with its proper ventilation.
7. This product should be located away from heat sources such as radiators, heat registers or other products that produce heat.
8. The product should be connected to a power supply only of the type described on the operating instructions or as marked on the product.
9. This product may be equipped with a polarized line plug (one blade wider than the other). This is a safety feature. If you are unable to insert the plug into the outlet, contact an electrician to replace your obsolete outlet. Do not defeat the safety purpose of the plug.
10. The power-supply cord of the product should be unplugged from the outlet when left unused for a long period of time. When unplugging the power-supply cord, do not pull on the cord, but grasp it by the plug.
11. Care should be taken so that object do not fall and liquid are not spilled into the enclosure through openings
12. The product should be serviced by qualified service personnel when:
A. The power-supply cord or the plug has been damaged;
B. Objects have fallen, or liquid has been spilled into the product;
C. The product has been exposed to rain;
D. The product does not appear to operate normally or exhibits a marked change in performance;
E. The product has been dropped or the enclosure damaged.
13. Do not attempt to service the product beyond that described in the user-maintenance instructions. All other servicing should be referred to qualified service personnel.

WARNING - Do not place objects on the product's power cord or place it in a position where anyone could trip over, walk on or roll anything over it. Do not allow the product to rest on or to be installed over power cords of any type. Improper installations of this type create the possibility of fire hazard and/or personal injury.

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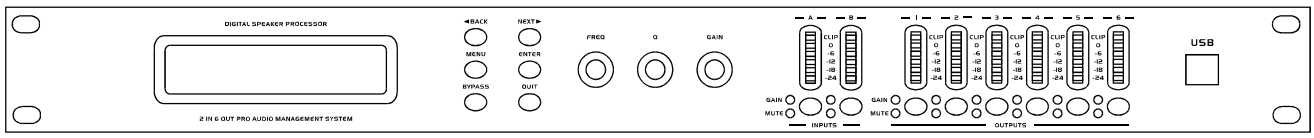
Specially Introduce



※ Chose the excellent DSP decoder and 32 bit interior data channel which is especial wide dynamic extension and purity sound quality.

※ High sampling rate , low spoilage , dynamic extension >108dB.

※ Many convenience and agility crossover mode , 2 way input 4 way output, can set to be 4 mode, including 2X2 way crossover , 3+1 way crossover, 4 way crossover and 2 way sub crossover with limiter .

※ Many convenience and agility crossover mode, 2 way input 6 way output , can set to be 5 mode , including 2X2+2 way crossover , 2X3 way crossover, 5+1 way crossover and 6 way crossover with limiter.

※ Each input channel is with 15 piece Equalizer view(GEQ) , each parameter of improve adjusting estension is ± 15dB; each input channel is with 9 piece Equalizer view(PEQ),each output will be with 8 PEQ ,Each gain extension to be +15dB to -30dB, center frequency extension is to be 20Hz-20kHz, Qs is 0.5 to 128 , PEQ is 1/36 to 4 times OCT , Parameter can adjust ,use for optimize system frequence response .

※ Each output channel is with one self-governed limitr, attack time, release time and threshold cost can be adjusting in a big extension; output VU METER view is relative to the dynamic quantity of the doorsill cost, the time constant of VU METER can auto follow the time constant of limitr, making notifies more correctly.

※ Changeable high-pass filter and low-pass filter's slope can be set : 6dB,12dB,18dB,24dB or 48dB , can choose respond to be : Butterworth , Linkwitz-Riley, Bessel and 12dB ; parameter of high-pass and low-pass filter can be adjust independence ,achieve anisomerous crossover function.

※ Controlling of input channel matrix, agility use input , output channel copy and connecting function , adjust every channel parameter more fast and convenience .

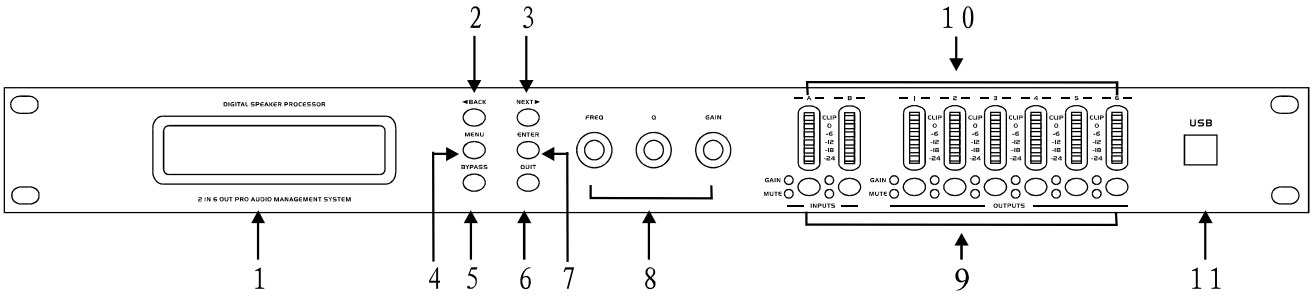
※ Three 360℃ degree circumgyrating decoder , use for controlling the filter parameter , convenience handling .during adjusting , LCD will show every item parameter of filter.

※ Each time-lapse input , output can be adjust , The longest delay time is 6.979 MS , the shortest distance is 0.021 MS.

※ 20 consumers memorizers .USB and RS232 connector , can connect the out-controller , friendly , intutionistic computer operation view , as well as multilevel perfect security lock function.

※ 20X2 Blue in a poor light white word LCD display, display more good-view.

Panel Control Introduce



1.Display_display manu ,output infor and varied of adjusting parameter.

2. 'BACK' key_making the information in the display turning backwards.

3. 'NEXT' key _making the information in the display turning ahead.

4. 'MENU' key_ activating menu, presented to display. Using 'BACK' and 'NEXT' key to chose the other menu.

5.'BYPASS' key _ Using currently equilibria parameter will be pass-by.(high-pass/low-pass filter and limiter can't pass-by) .

6.'QUIT' key_ quit menu.

7.'ENTER' key_ entering chose menu or confirm the choice of menu.

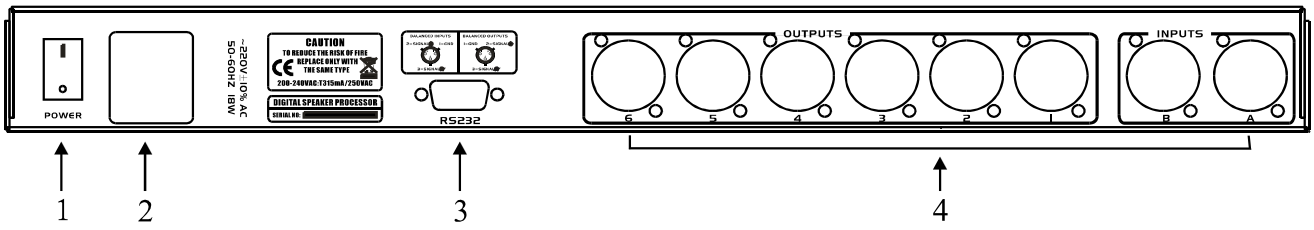
8.Parameter Controller _Three voltage 360℃ degree circumgyrated decoder is used for adju sting the parameter on display.

9.Input, output muting , improve menu double key_ press one of the keys ,the red LED indicator light which correspond the way will be switched on ,so that way is mute; if press for long-time (about 2 minutes) one of the key will make the display turn to improve display. After chose one way , the orange LED indicator light also will be switched on . Then can be adjusted through the parameter controller to the parameter of the way.

10.Input, output VU METER_ showing the rest measure of before input and output cut-top . Five under LED indicator light is showing the rest input measure 24dB to 0dB. 0dB orange indicator light means level is under 3dB of cut-top cost . Top red indicator light shows that number is overflow.

11.USB connecter _ connecting with personal computer.

Back Panel Control Introduce



1.Power switch _ controlling general electrical source.

2.Plug_ can use the normal IEC plug. Random offer 1 pc power cord which can be matched .

3.RS232 communication connector _ 9 core RS232 connector and square USB connector of front panel are the same, connecting with personal computer.

4.XLR style input / output _ each way frequency input and output is with 3 core of XLR plug. Each port is balance , 2 feet are hot end, 3 feet are cold end , 1 foot is screen (connect with grounding) end.

A、Xover Sub-Menu

Press Menu enter Main Menu (As shown in Figure 1) ,press 'BACK'、 'NEXT'、'ENTER' key , chose Xover Sub-Menu.

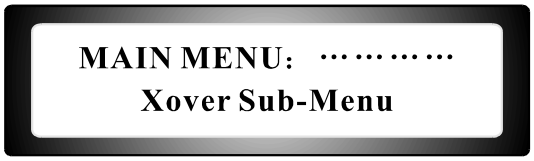


Figure 1

Xover Sub-Menu including below:

Load a xover: Calling the sub-storage has been a frequent pattern.

Design a xover: According to the wizard guidelines, the design of a sub-frequency mode.

Store a xover: Store a sub-frequency (X-OVER) all of the output settings. The device users to store atotal of 20 models, each model can store 16 characters of the name tags, if not edit the name of storage mode,it corresponds with the model name of storage.

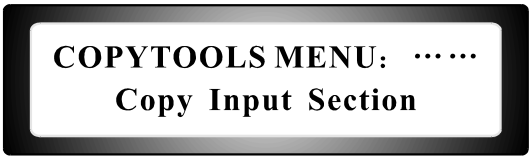
Erase a xover: Delete one sub-storage mode.

B、Copy Tools Sub-Menu

1. Press menu enter main menu (As shown in Figure 2) , press 'BACK'、 'NEXT'、 'ENTER' key ,chose Copy Tools Sub-Menu.

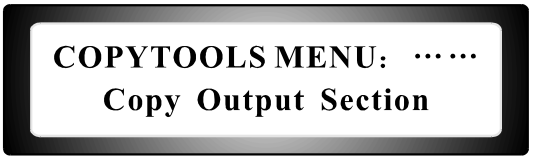
Figure 2

2. Press 'ENTER' key to entrance (As shown in Figure 3), press 'BACK'、'NEXT' key to choose the copy way.



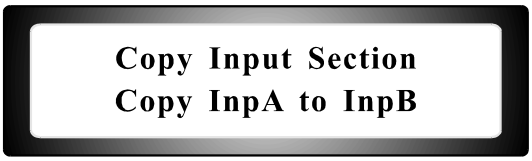
input channel copy pictures.

Figure 3



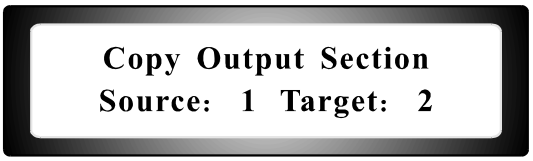
output channel copy pictures.

3. After choose the copy channel , press 'ENTER' key to entrance , circumgyrated 'FREQ' decoder, choose the source channel which you want to copy; circumgyrated 'Q' decoder to choose the copy channel, showing (As shown in Figure 4) ,then press 'ENTER' to finish.



sketch of input channels copy options

Figure 4



sketch of output channels copy options

C、System Sub-Menu

Press'MENU' to enter the main menu (As shown in Figure 5), press 'BACK' 、'NEXT' 、'ENTER'key to choose System Sub-Menu.

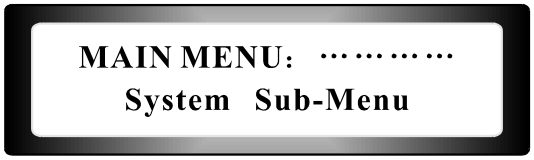


Figure 5

System Sub-Menu including below:

a.Wake-up Time: Setting system switch on state.

b.Fillter Q or BW: Q cost or Broad Band display.

c.Delay Time / Distance: Delay time. Time (ms) :MSEL Meters: meter.

d.Load Program Option: Setting when switch on if can be entrance mute state.

e.Device Name Title: Edit the name of currently equipment .

D、Security submenu

Press 'MENU' to enter main menu (As shown in Figure 6) ,press 'BACK'、 'NEXT'、 'ENTER' keyto choose Security Sub-Menu.

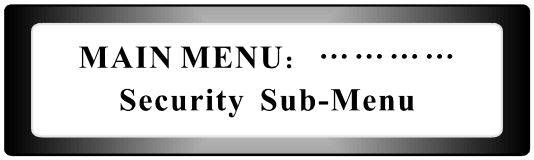


Figure 6

Press 'ENTER' , entrance pass code setting.

a.Press 'BACK'&'NEXT', circumgyrated 'FREQ' to edit pass code (As shown in Figure 7).

b.After dial pass code, press 'ENTER' key , entrance pass-code setting screen.(As shown in Figure 8).

Figure 7

Figure 8

c.Double operating 'a', press'ENTER' key again.

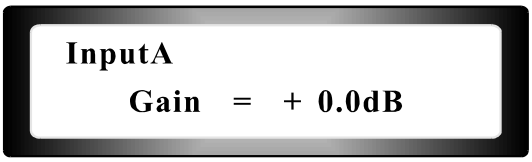
d.Dialed 2 times pass-code are the same , system will be locked, operation finished(come back to main menu will display a locked symbol); if dial different pass-code, will cue in check out mistake , system can't be locked.

e.Decode operation ibid ,after check out the character system, system decode successfully.

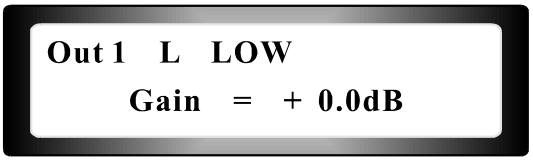
E、System parameter setting

Press (press time about 2 minute) input ,output channel ,mute , gain menu copy key for long time, one of the key will make the display turn to plug screen of corresponding channel , the or ange light of corresponding channel LED (Gain) indicator light will be switched on . Press 'BACK' and 'NEXT' key to exchange the choice of the menu , Menu choice will be explained one by one . Press (press time about 0.5 minute) input , output channel mute function ,when channel muted , the red LED(MUTE) of corresponding channel indicator light will be switched on .

1.Input, output channel Gain adjusting(As shown in Figure 9) :input channel press Input A and B; output channel press Out1,Out 2,Out3..... symbol. Gain adjusting area 40.0dB-+6.0dB, ±0.1dB distance , circumgyrating 'GAIN' adjust the size of gain.



sketch of input channels gain



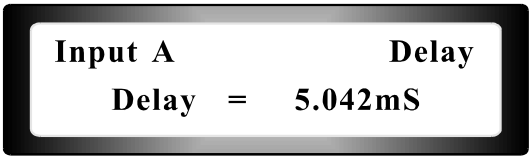
Sketch of output channels gain

Figure 9

2.Output polarity setting (As shown in Figure 10) : [+]:positive polarity ; [-] : opposite polarity . Each channel is including independence polarity control , circumgyrate 'GAIN' adjust positive, opposite polarity.

Figure 10

3.Input, output Delay setting (As shown in Figure 11) :each input , output channel is including independence delay control , adjust the distance of 0mS-6.979mS±0.021mS . Adjust delay setting cost ,press 'FREQ' key to adjust (distance: 1mS) ; press 'Q' key to adjust .(distance: 0.021mS) .



sketch of the importation of delay

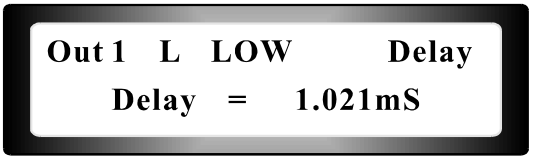
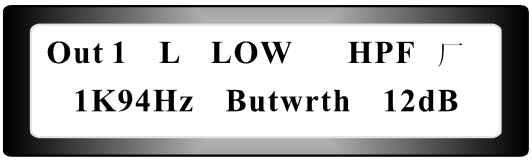


Figure 11

sketch of the exportation of delay

4.HPF&LPF setting (As shown in Figure 12) : Each channel including independence High-pass andLow-pass filter , parameter of high-pass and low-pass filter can adjust by themselves , carry out anisomerous crossover function .



sketch of high_pass filter

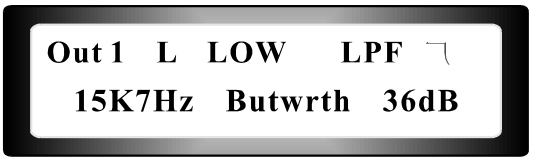


Figure 12

sketch of low_pass filter

Choice Cant Rate (attached form):

Butterworth	6dB、12dB、18dB、24dB、36dB、48dB
Bessel	12dB、18dB、24dB、48dB
Linkwitz-Riley	24dB、48dB

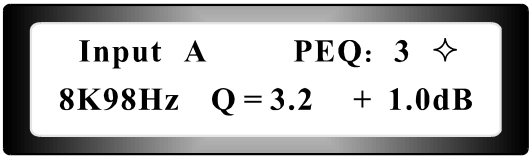
Circumgyrate'FREQ' key , change the frequency of filter ; circumgyrate 'GAIN' key , change cant rate of filter.

High-pass :20.1Hz~~22.2kHz

Low-pass : 20.1Hz~~22.2kHz

Note: Each input channel 15 of the icon Weighing (GEQ) and 9 of both the Senate Weighing (PEQ), 8 output channels of both the Senate Weighing (PEQ), all adjustable parameters.

5. Input , output PEQ setting As shown in Figure 13): circumgyrate 'FREQ'key , change the frequency size ; circumgyrate 'Q' key, change Q /BW ; circumgyrate 'GAIN' key , change gain size.



Parameters of a balanced input channels Sketch

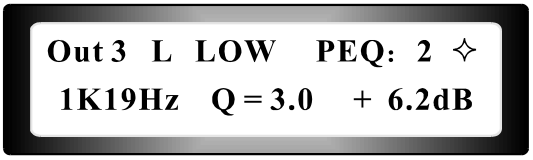


Figure 13 Parameters of a balanced output channels Sketch

"✧" : Expression PEQ
" = " : Expression PEQ Bypass
Freq: 20.1Hz-20.2kHz（368个ISO）

Q/BW: 0.5-128/2.0-0.008（PEQ）
Gain: -30dB to +15dB（ ±0.1dB）

6. Limiter Setting (As shown in Figure 14) : Each output channel is with one Limiter . The attack time ofLimiter is adjusted to 0.3mS to 90mS, release time is 2,4,8,16,or 32×Attack time. AdjustLevel area to be +15dBu to -10dBu, adjusting distance to be ±1dBu.

Circumgyrate 'FREQ' key ,change star up time of Limiter . Circumgyrate 'Q' key ,change the times of Limiter release time , Circumgyrate 'GAIN' key , change Limiter gain size.

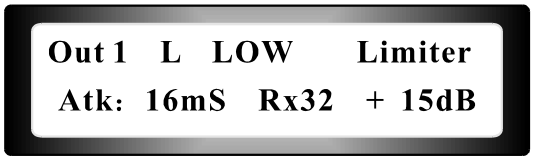


Figure 14

7. Input Source choice : Input source of each output channel choose menu (As shown in Figure 15) , Circumgyrate 'GAIN' key, can choose anyone input channel (A,B or A+B) signal .

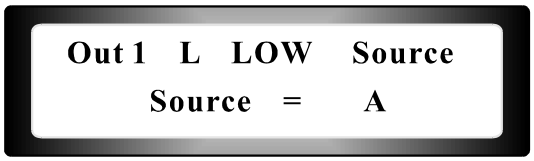


Figure 15

8、Each output channel will have a special name . If change channel name : Press 'ENTER' (As shown in Figure 16) , Circumgyrate 'FREQ' key , change character ; Press 'BACK' and 'NEXT' key to move the character which you want to change .

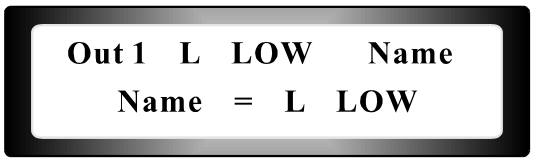
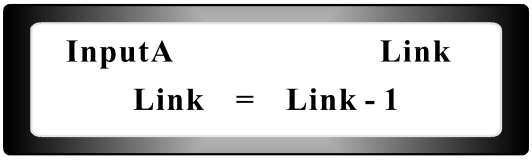


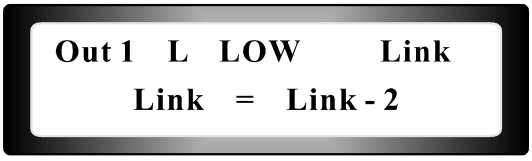
Figure 16

9 、Input, output channel Link adjusting (As shown in Figure 17): Circumgyrate 'GAIN' key , change link mode . Input channel just only one mode can be choose. Output channel have three modes can be choose



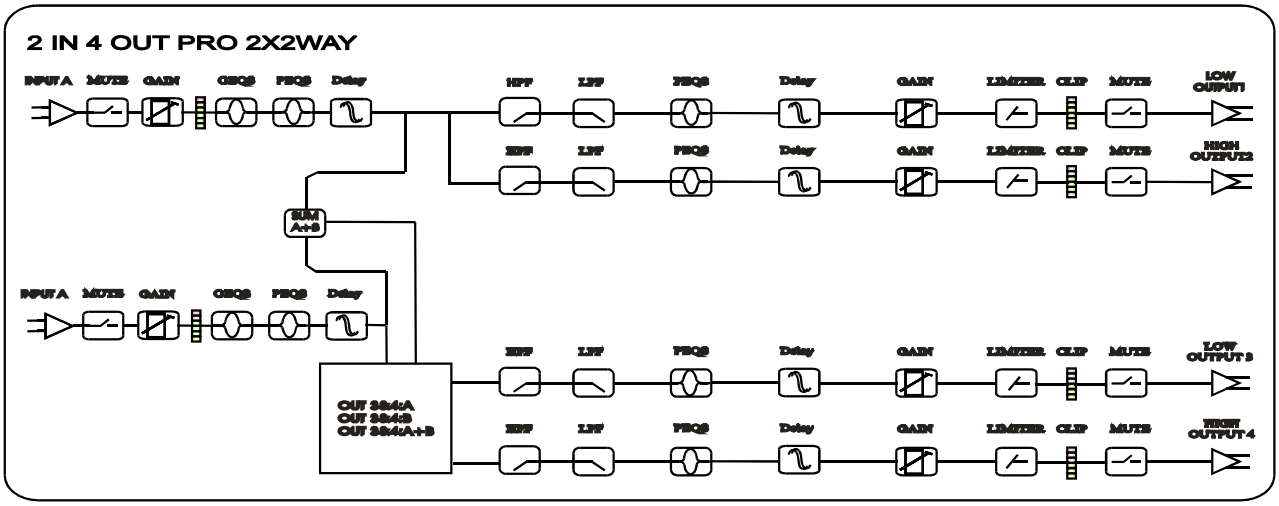
input Channel link pictures

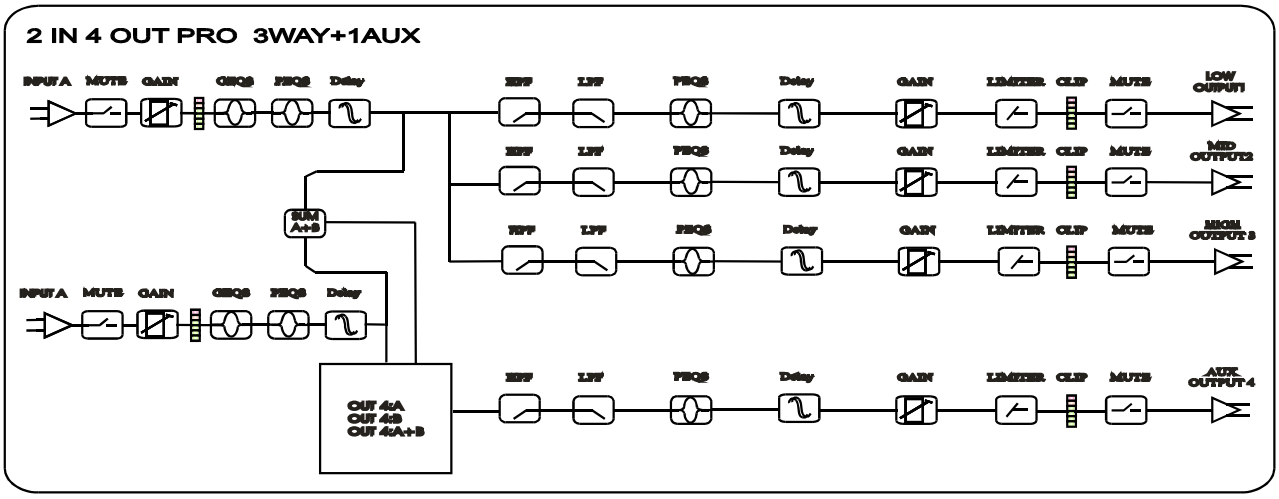
Figure 17

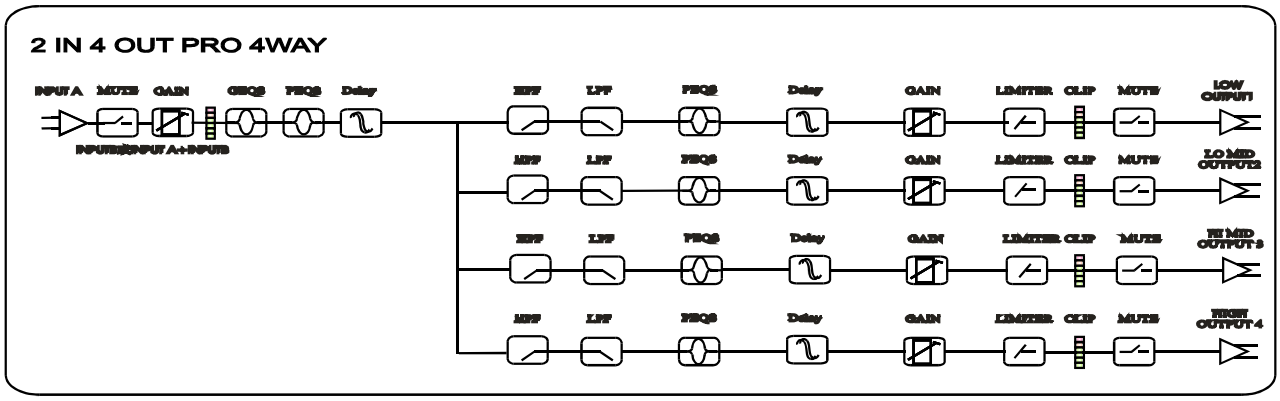


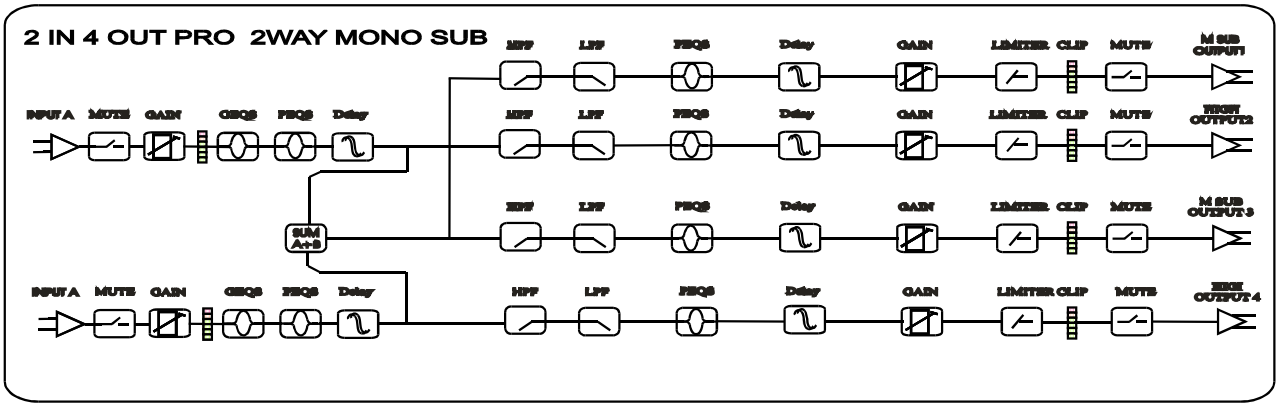
Output Channel link pictures

HPF&LPF Mode

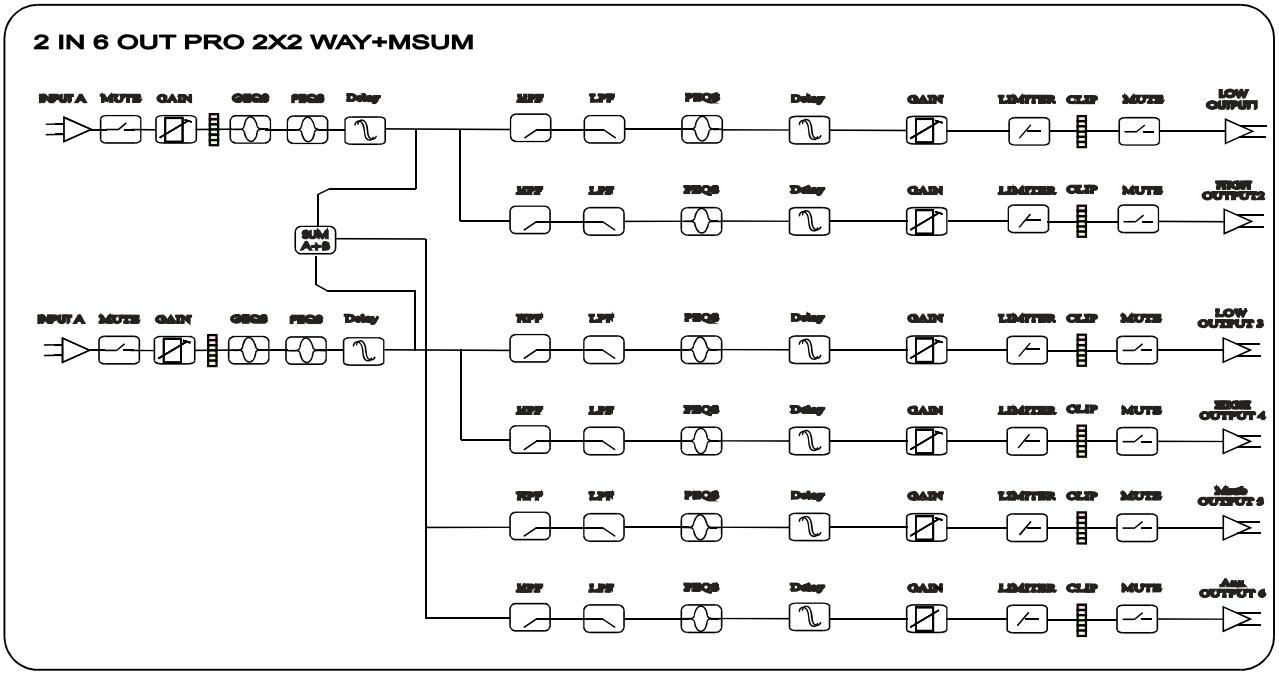

2 IN 4 OUT PRO 2X2WAY
INPUT A
MUTE
GAIN
GEQ8
PEQ8
Delay
HPF
LPF
PEQ8
Delay
GAIN
LIMITER
CLIP
MUTE
LOW OUTPUT1
HIGH OUTPUT2
SUM A+B
INPUT A
MUTE
GAIN
GEQ8
PEQ8
Delay
OUT 3&4:A
OUT 3&4:B
OUT 3&4:A+B
LOW OUTPUT 3
RIGHT OUTPUT 4

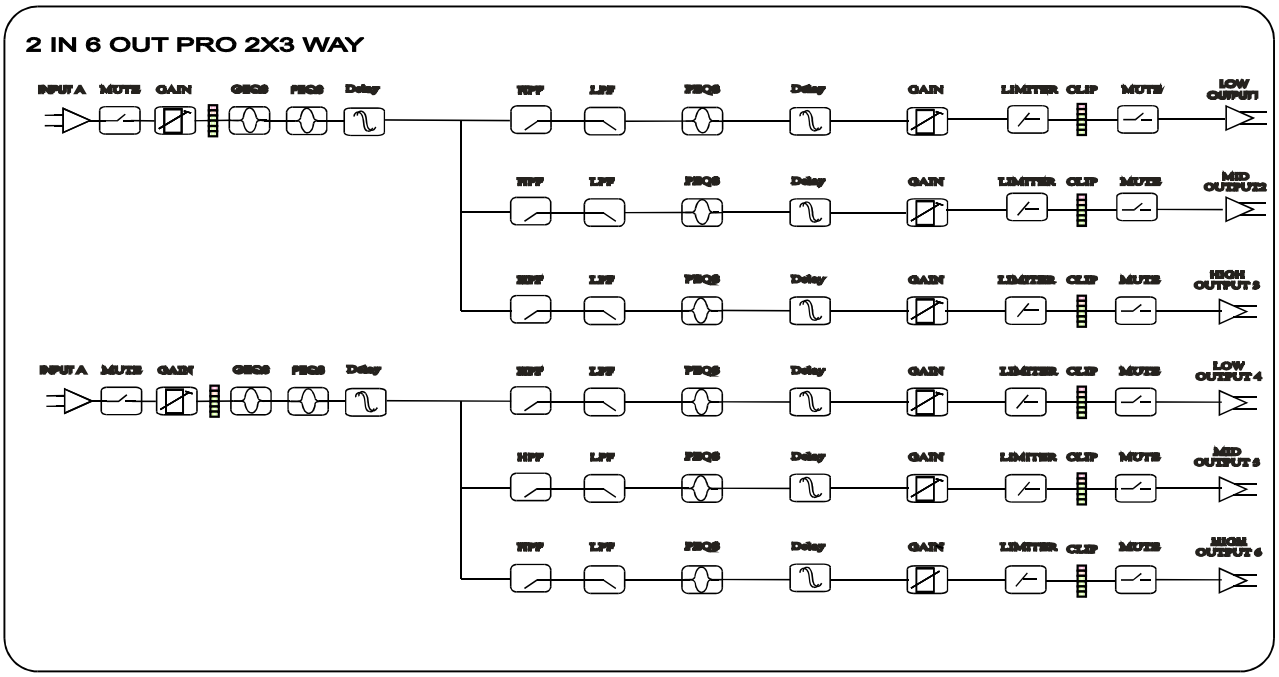

2 IN 4 OUT PRO 3WAY+1AUX
INPUT A
MUTE
GAIN
GEQ8
PEQ8
Delay
HPF
LPF
PEQ8
Delay
GAIN
LIMITER
CLIP
MUTE
LOW OUTPUT1
MID OUTPUT2
HIGH OUTPUT 3
SUM A+B
INPUT A
MUTE
GAIN
GEQ8
PEQ8
Delay
OUT 4:A
OUT 4:B
OUT 4:A+B
AUX OUTPUT 4


2 IN 4 OUT PRO 4WAY
INPUT A
MUTE
GAIN
GEQ8
PEQ8
Delay
INPUT B
INPUT A+INPUT B
HPF
LPF
PEQ8
Delay
GAIN
LIMITER
CLIP
MUTE
LOW OUTPUT1
LO MID OUTPUT2
HI MID OUTPUT 3
RIGHT OUTPUT 4

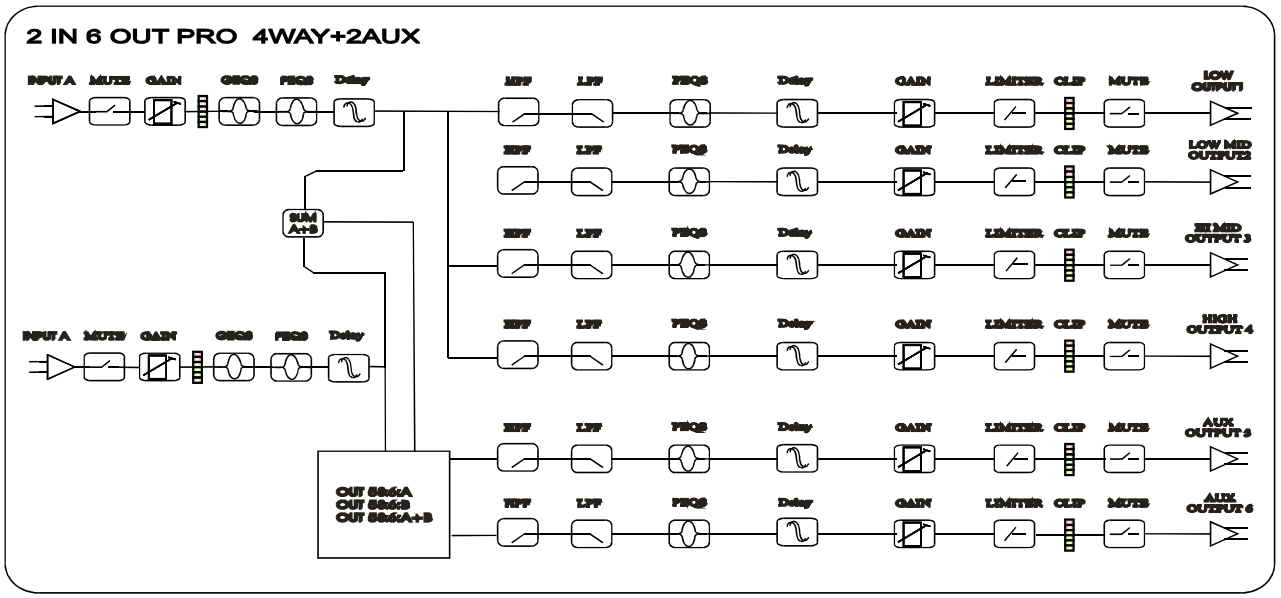

2 IN 4 OUT PRO 2WAY MONO SUB
INPUT A
MUTE
GAIN
GEQ8
PEQ8
Delay
HPF
LPF
PEQ8
Delay
GAIN
LIMITER
CLIP
MUTE
M SUB OUTPUT1
RIGHT OUTPUT2
M SUB OUTPUT 3
SUM A+B
INPUT A
MUTE
GAIN
GEQ8
PEQ8
Delay
RIGHT OUTPUT 4

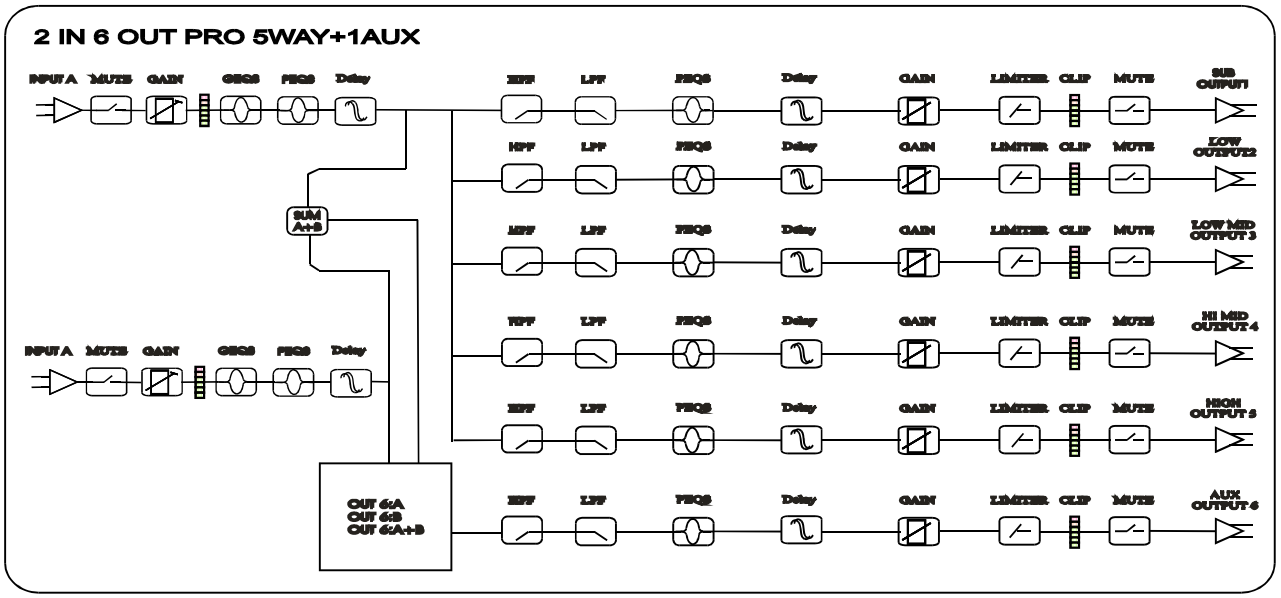
HPF&LPF Mode

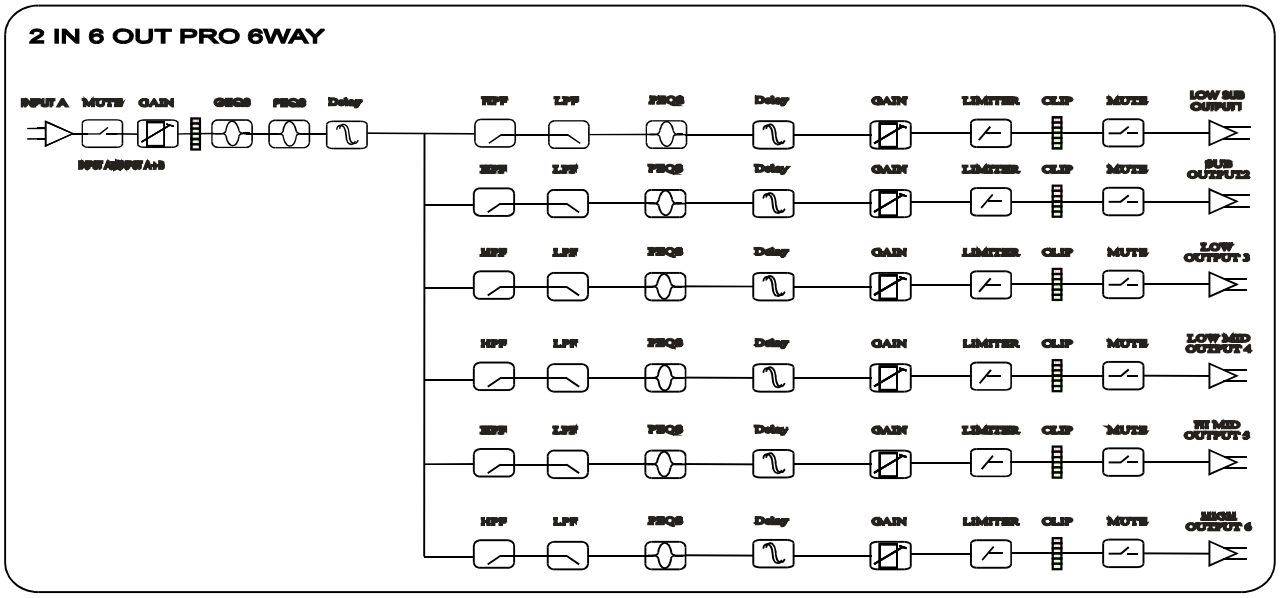

2 IN 6 OUT PRO 2X2 WAY+MSUM
INPUT A
MUTE
GAIN
PEQ3
Delay
HPF
LPF
PEQ3
Delay
GAIN
LIMITER
CLIP
MUTE
LOW OUTPUT1
HIGH OUTPUT2
SUM A+B
INPUT A
LOW OUTPUT 3
HIGH OUTPUT 4
MID OUTPUT 5
SUB OUTPUT 6


2 IN 6 OUT PRO 2X3 WAY
INPUT A
MUTE
GAIN
PEQ3
Delay
HPF
LPF
PEQ3
Delay
GAIN
LIMITER
CLIP
MUTE
LOW OUTPUT1
MID OUTPUT2
HIGH OUTPUT 3
INPUT A
LOW OUTPUT 4
MID OUTPUT 5
HIGH OUTPUT 6

HPF&LPF Mode


2 IN 6 OUT PRO 4WAY+2AUX
INPUT A
MUTE
GAIN
GEQ8
PEQ8
Delay
SUM A+B
INPUT A
MUTE
GAIN
GEQ8
PEQ8
Delay
OUT 5&6A
OUT 5&6B
OUT 5&6A+B
HPF
LPF
PEQ8
Delay
GAIN
LIMITER
CLIP
MUTE
LOW OUTPUT1
LOW MID OUTPUT2
HI MID OUTPUT 3
HIGH OUTPUT 4
AUX OUTPUT 5
AUX OUTPUT 6


2 IN 6 OUT PRO 5WAY+1AUX
INPUT A
MUTE
GAIN
GEQ8
PEQ8
Delay
SUM A+B
INPUT A
MUTE
GAIN
GEQ8
PEQ8
Delay
OUT 6A
OUT 6B
OUT 6A+B
HPF
LPF
PEQ8
Delay
GAIN
LIMITER
CLIP
MUTE
SUB OUTPUT1
LOW OUTPUT2
LOW MID OUTPUT 3
HI MID OUTPUT 4
HIGH OUTPUT 5
AUX OUTPUT 6


2 IN 6 OUT PRO 6WAY
INPUT A
MUTE
GAIN
GEQ8
PEQ8
Delay
HPF
LPF
PEQ8
Delay
GAIN
LIMITER
CLIP
MUTE
LOW SUB OUTPUT1
SUB OUTPUT2
LOW OUTPUT 3
LOW MID OUTPUT 4
HI MID OUTPUT 5
HIGH OUTPUT 6

Technology Size

Inputs

Impedance :	> 10 KΩ Electron Balance Input
CMRR:	>65dB(50Hz-10KHz)

Outputs

Source Imp :	> 10 KΩ Electron Balance Output
Max.Level:	>Vpp=4V Balance, Vpp=7.6V Imbalance
Frequency Resp:	20Hz-20.0kHz ± 0.5dB

Dynamic Extension

Distortion:	>108dB 20Hz-20kHz 0.01%(THD)
Maximum Delay:	6.979mS, The least adjusting distance 0.021mS
Output Gain:	-40dB to +6dB , in 0.1dB steps
Input Gain:	-40dB to +6dB , in 0.1dB steps

Graph Balance Filter:	15 sect / Each way input
Parameter Balance Filter:	8 sect / Each way input , 9 sect /each way output
Filter Gain:	+15dB to -30dB in 0.1dB steps
Freq Range:	20Hz-20kHz，1/36 octave steps.(368 positions)
Filter Q/BW:	0.5 to 128/2.0 to 0.008(Sections switched to shelving response)

High and Lowpass Filters

Filters:	Each way output is with 1 HPF and LPF
Freq Range HPF:	2 0Hz-20kHz, 1/36 octave steps
Freq Range LPF:	20Hz-20kHz, 1/36 octave steps
Responses Curve:	Butterworth : 6dB 12dB 18dB 24dB 36dB 48dB
	Bessel: 12dB 18dB 24dB 48dB
	Linkwitz-Riley : 12dB 24dB 48dB

Limiter

Threshold:	+ 15dBu to -10dBu
Attack Time:	0.3 to 90milliseconds
Release Time:	2/4/8/16/32 ×Attack time

Display	20x2 blue back light white word LCD
Input meter:	-24dB,-18dB,-12dB,-6dB,-0dB Clip
Output meter:	-24dB,-18dB,-12dB,-6dB,-0dB Clip

Display

Inputs:	3 pin female XLR
Outputs:	3 pin male XLR
RS232:	9 pin DEE connector
USB:	Square USB Socket

Electric Source

Input Electric Source:	180V to 240VAC 50Hz to 60Hz
Fuse:	T400mA/250VAC

Weight:	3.8KG
Size:	1.75"(1U)×19"×7"（44×482×180mm）

Note: Due to continuing product improvement the above specifications are subject to chang.