

4 off 32 x 32 Dante® / AES67 Network Audio Mixers



BEATRICE MIX32
Network Audio Fixed Ratio Mixer
Now with Multiple Mix-Minus Circuits

Highlights

4 off Independent
32 x 32 Mixers

Mix-Minus Circuits
Ideal For Simple
Intercom

Dante® & AES67
Compatible

Redundant
Mains PSU

Compressor/
Limiter on Outputs

Redundant
Copper & Fibre
Network

Overview

The GlenSound BEATRICE MIX32 is a high density audio mixer for producing fixed ratio audio mixes on Dante and AES67 audio networks. It can be fitted with a maximum of four independent mixer cards, each with their own redundant network interface. Each of these mixer cards provides 32 audio inputs and 32 audio outputs from the network, with the 32 outputs being mixes derived from different sets of input channels.

A number of different mix-minus mixes can be set on each of 32 x 32 mixer cards. These make it very practical to use as a central intercom mixing hub.

It was originally designed for setting up intercom and talk-back mixes but its high performance and low price point make it ideal for many other applications in broadcast, professional audio and commercial audio environments.

Intercom Talkback Mixer



BEATRICE MIX32

Network Audio Fixed Ratio Mixer

Features



- Redundant Network Interfaces**
 Each mixer card fitted in the BEATRICE MIX32 has 4 network interfaces. There are 2 copper RJ45 ports on Neutrik ethercon connectors and there are also 2 SFP (Small Form-Factor Pluggable) slots ready to accept fibre or copper SFP modules (not included). Any 2 network interfaces can be set up on the Dante network to provide glitch free redundancy.
- Redundant Power Supplies**
 There are internally 2 mains power supplies fitted to provide a fully professional level of integrity for broadcast applications. Each power supply has its own filtered mains input on rear panel IEC plugs.
- Semi Modular Mixer Modules**
 The BEATRICE MIX32 is supplied fitted with 1 off 32 x 32 mixer module, however the rack itself can fit a maximum of 4 off 32 x 32 mixer modules, each completely independent with their own network interfaces. The modules are reasonably easy to retro fit so adding extra mixer facilities is perfectly possible to allow you to expand your mixing capacity as your network grows.
- Compressor/ Limiter Circuits**
 Compressor/ Limiter circuits are provided on the mixers outputs. We call them compressor/ limiter as the compression ratio we use is not constant, and at the compressor's knee a very small amount of compression is applied which increases as the input signal does. Until just prior to clipping, the compressor is acting as a limiter. For protection against multiple coherent input signals these compressor/limiter circuits are provided on all outputs.

Intercom Talkback Mixer





- Fixed Ratio Mixers**
 Each mixer card has 32 audio inputs and 32 mix outputs to and from the Dante/AES67 network.
 The 32 mix outputs are derived from different combinations of the inputs as per the table below:

MIXER OUTPUT	SUM OF INPUTS
1	1 - 32
2	1 - 24
3	1 - 16
4	17 - 32
5	1 - 8
6	9 - 16
7	17 - 24
8	25 - 32
9	1 - 4
10	5 - 8
11	9 - 12
12	13 - 16
13	17 - 20
14	21 - 24
15	25 - 28
16	29 - 32
17	1 & 2
18	3 & 4
19	5 & 6
20	7 & 8
21	9 & 10
22	11 & 12
23	13 & 14
24	15 & 16
25	17 & 18
26	19 & 20
27	21 & 22
28	23 & 24
29	25 & 26
30	27 & 28
31	29 & 30
32	31 & 32

Mix-Minus Mixers

Each mixer card provides eight pre-configured options for generating mix-minus outputs. The table below shows details of these eight different configurations.

Switch position →	2	3	4	5	6	7	8	9
	Mix minus 32	Mix minus 24 8	Mix minus 16 16	Mix minus 16 8 8	Mix minus 16 8 4 4	Mix minus 8 8 8 8	Mix minus 8 8 4 4	Mix minus 8 4 4 4
Output	Mix of inputs	Mix of inputs	Mix of inputs	Mix of inputs	Mix of inputs	Mix of inputs	Mix of inputs	Mix of inputs
1	1-32 excluding 1	1-24 excluding 1	1-16 excluding 1	1-16 excluding 1	1-16 excluding 1	1-8 excluding 1	1-8 excluding 1	1-8 excluding 1
2	1-32 excluding 2	1-24 excluding 2	1-16 excluding 2	1-16 excluding 2	1-16 excluding 2	1-8 excluding 2	1-8 excluding 2	1-8 excluding 2
3	1-32 excluding 3	1-24 excluding 3	1-16 excluding 3	1-16 excluding 3	1-16 excluding 3	1-8 excluding 3	1-8 excluding 3	1-8 excluding 3
4	1-32 excluding 4	1-24 excluding 4	1-16 excluding 4	1-16 excluding 4	1-16 excluding 4	1-8 excluding 4	1-8 excluding 4	1-8 excluding 4
5	1-32 excluding 5	1-24 excluding 5	1-16 excluding 5	1-16 excluding 5	1-16 excluding 5	1-8 excluding 5	1-8 excluding 5	1-8 excluding 5
6	1-32 excluding 6	1-24 excluding 6	1-16 excluding 6	1-16 excluding 6	1-16 excluding 6	1-8 excluding 6	1-8 excluding 6	1-8 excluding 6
7	1-32 excluding 7	1-24 excluding 7	1-16 excluding 7	1-16 excluding 7	1-16 excluding 7	1-8 excluding 7	1-8 excluding 7	1-8 excluding 7
8	1-32 excluding 8	1-24 excluding 8	1-16 excluding 8	1-16 excluding 8	1-16 excluding 8	1-8 excluding 8	1-8 excluding 8	1-8 excluding 8
9	1-32 excluding 9	1-24 excluding 9	1-16 excluding 9	1-16 excluding 9	1-16 excluding 9	9-16 excluding 9	9-16 excluding 9	9-16 excluding 9
10	1-32 excluding 10	1-24 excluding 10	1-16 excluding 10	1-16 excluding 10	1-16 excluding 10	9-16 excluding 10	9-16 excluding 10	9-16 excluding 10
11	1-32 excluding 11	1-24 excluding 11	1-16 excluding 11	1-16 excluding 11	1-16 excluding 11	9-16 excluding 11	9-16 excluding 11	9-16 excluding 11
12	1-32 excluding 12	1-24 excluding 12	1-16 excluding 12	1-16 excluding 12	1-16 excluding 12	9-16 excluding 12	9-16 excluding 12	9-16 excluding 12
13	1-32 excluding 13	1-24 excluding 13	1-16 excluding 13	1-16 excluding 13	1-16 excluding 13	9-16 excluding 13	9-16 excluding 13	9-16 excluding 13
14	1-32 excluding 14	1-24 excluding 14	1-16 excluding 14	1-16 excluding 14	1-16 excluding 14	9-16 excluding 14	9-16 excluding 14	9-16 excluding 14
15	1-32 excluding 15	1-24 excluding 15	1-16 excluding 15	1-16 excluding 15	1-16 excluding 15	9-16 excluding 15	9-16 excluding 15	9-16 excluding 15
16	1-32 excluding 16	1-24 excluding 16	1-16 excluding 16	1-16 excluding 16	1-16 excluding 16	9-16 excluding 16	9-16 excluding 16	9-16 excluding 16
17	1-32 excluding 17	1-24 excluding 17	17-32 excluding 17	17-24 excluding 17	17-24 excluding 17	17-24 excluding 17	17-24 excluding 17	17-21 excluding 17
18	1-32 excluding 18	1-24 excluding 18	17-32 excluding 18	17-24 excluding 18	17-24 excluding 18	17-24 excluding 18	17-24 excluding 18	17-21 excluding 18
19	1-32 excluding 19	1-24 excluding 19	17-32 excluding 19	17-24 excluding 19	17-24 excluding 19	17-24 excluding 19	17-24 excluding 19	17-21 excluding 19
20	1-32 excluding 20	1-24 excluding 20	17-32 excluding 20	17-24 excluding 20	17-24 excluding 20	17-24 excluding 20	17-24 excluding 20	17-21 excluding 20
21	1-32 excluding 21	1-24 excluding 21	17-32 excluding 21	17-24 excluding 21	17-24 excluding 21	17-24 excluding 21	17-24 excluding 21	21-24 excluding 21
22	1-32 excluding 22	1-24 excluding 22	17-32 excluding 22	17-24 excluding 22	17-24 excluding 22	17-24 excluding 22	17-24 excluding 22	21-24 excluding 22
23	1-32 excluding 23	1-24 excluding 23	17-32 excluding 23	17-24 excluding 23	17-24 excluding 23	17-24 excluding 23	17-24 excluding 23	21-24 excluding 23
24	1-32 excluding 24	1-24 excluding 24	17-32 excluding 24	17-24 excluding 24	17-24 excluding 24	17-24 excluding 24	17-24 excluding 24	21-24 excluding 24
25	1-32 excluding 25	25-32 excluding 25	17-32 excluding 25	25-32 excluding 25	25-32 excluding 25	25-32 excluding 25	25-32 excluding 25	25-28 excluding 25
26	1-32 excluding 26	25-32 excluding 26	17-32 excluding 26	25-32 excluding 26	25-32 excluding 26	25-32 excluding 26	25-32 excluding 26	25-28 excluding 26
27	1-32 excluding 27	25-32 excluding 27	17-32 excluding 27	25-32 excluding 27	25-32 excluding 27	25-32 excluding 27	25-32 excluding 27	25-28 excluding 27
28	1-32 excluding 28	25-32 excluding 28	17-32 excluding 28	25-32 excluding 28	25-32 excluding 28	25-32 excluding 28	25-32 excluding 28	25-28 excluding 28
29	1-32 excluding 29	25-32 excluding 29	17-32 excluding 29	25-32 excluding 29	25-32 excluding 29	25-32 excluding 29	25-32 excluding 29	29-32 excluding 29
30	1-32 excluding 30	25-32 excluding 30	17-32 excluding 30	25-32 excluding 30	25-32 excluding 30	25-32 excluding 30	25-32 excluding 30	29-32 excluding 30
31	1-32 excluding 31	25-32 excluding 31	17-32 excluding 31	25-32 excluding 31	25-32 excluding 31	25-32 excluding 31	25-32 excluding 31	29-32 excluding 31
32	1-32 excluding 32	25-32 excluding 32	17-32 excluding 32	25-32 excluding 32	25-32 excluding 32	25-32 excluding 32	25-32 excluding 32	29-32 excluding 32

BEATRICE MIX32

Network Audio Fixed Ratio Mixer

Specification

NETWORK

Physical Interface

2 off RJ45 Neutrik Ethercon
2 off SFP slots

Audio Sample Frequency

Up to 48k

Transfer Rate

1000 Mbps

PHYSICAL

Mechanics

All aluminium with laser etched panels

Size

19" 1RU, 30cm deep

Weight

2.8Kg (1 mix card fitted)

Shipping Weight

4.5Kg

Shipping Size

62 x 42 x 12 cms

Shipping Carton

Rugged export quality cardboard

INCLUDED ITEMS

Handbook

By download

Mains Cable

UK & EU Only, 2 metre mains plug to IEC x 2

RJ45 Network Cable

2 metre Cat5 RJ45plug /RJ45plug cable x2

Compressor/ Limiters

In the screen shot (below right) the vertical column indicates the output level in dBu (0dBu = -18dBFS). The horizontal row indicates the input level in dBFS. Green Line: No compressors on outputs. Blue Line: Output compressor on. Yellow Line: Output compressors on. (This last option is no longer available)

AUDIO

Audio inputs & outputs are entirely digital fed via the digital network. Internally audio is processed in a DSP with 32 bit resolution. Performance is expected to be completely flat and noise free. We cannot measure it as its performance exceeds the performance of our test equipment.

POWER

No of Inputs

Two

Physical Inputs

IEC Plug

Type of Input

Fully Redundant

Voltage Range

100 -240 VAC +/-10%

Frequency

50 - 60 Hz

Consumption

14 Watts (1 mix card fitted) then add 2 Watts for each extra mix card

ENVIRONMENTAL

Operating Temperature

0 to +50 °C (32 to 122°F)

Storage Temperature

-20 to +70 °C (-4° to 158°F)

Relative Humidity

0 to 95% non-condensing

