UB2442FX-PRO

Technical Specifications

Version 1.3 July 2004





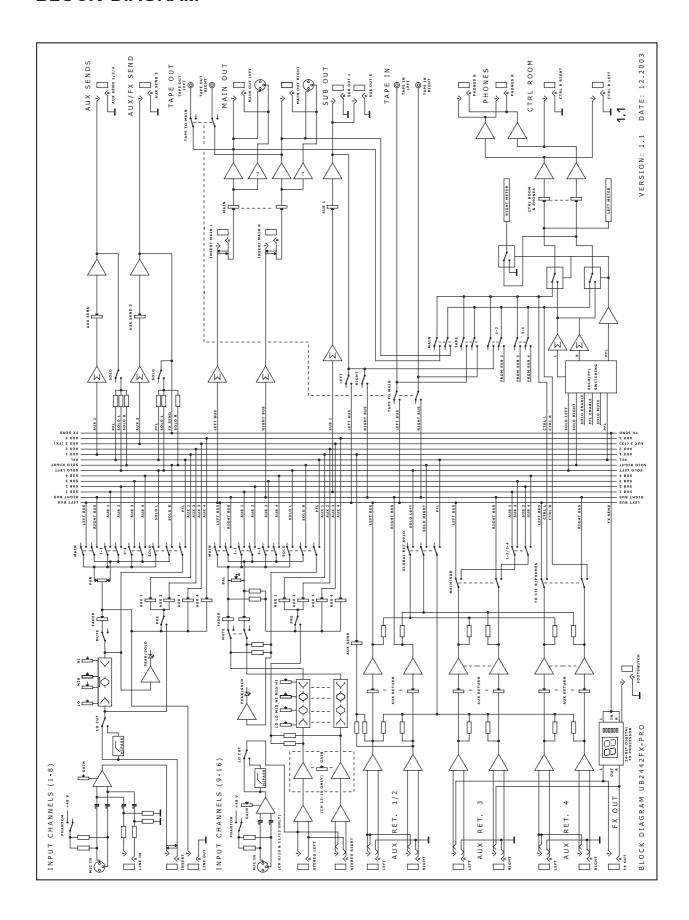


EURORACK

Ultra low-noise design 24-input 4-bus mic/line mixer with premium mic preamplifiers and 24-bit multi-FX processor

- ▲ Ultra low-noise ULN design, highest possible headroom, ultra-transparent audio
- ▲ 10 new state-of-the-art, studio-grade IMP "Invisible" Mic Preamps with:
 - 130 dB dynamic range for 24-bit, 192 kHz sampling rate inputs
 - Ultra-wide 60 dB gain range
 - Lowest possible distortion 0.0007% (20 Hz 20 kHz)
- ▲ Integrated 24-bit digital stereo FX processor with 99 great-sounding VIRTUALIZER presets including reverb, delay, chorus, compressor, tube distortion, vinylizer and more plus 1 kHz test tone generator
- ▲ Effective, extremely musical 3-band EQ with semi-parametric mid band plus switchable low-cut filter on all mono channels
- ▲ Channel inserts and direct outputs on each mono channel plus main mix inserts for flexible connection of outboard equipment
- ▲ 16 balanced high-headroom line inputs with dedicated gain controls on stereo channels 13 16
- ▲ State-of-the-art 4580 operational amplifiers provide lowest noise and distortion—better than 4560 op amps
- ▲ 2 headphones outputs
- ▲ 4 aux sends per channel: 2 pre/post fader switchable for monitoring/FX applications, 2 post fader (for internal FX or as external send)
- ▲ Peak LEDs, mute, main mix and subgroup routing switches, solo and PFL functions on all channels
- ▲ 4 subgroups with separate outputs for added routing flexibility
- ▲ 4 multi-functional stereo aux returns with flexible routing
- ▲ Balanced main mix outputs with TRS and gold-plated XLR connectors, separate control room, headphones and stereo tape outputs
- ▲ Control room/phones outputs with multi-input source matrix
- ▲ Tape inputs assignable to main mix or control room/phones outputs
- ▲ Switchable +48 V phantom power for condenser microphones
- ▲ Long-wearing 60 mm logarithmic-taper ALPS® faders and sealed rotary controls
- ▲ BNC connector for standard gooseneck lamps
- ▲ Internal switch-mode power supply for maximum flexibility (100 240 V~), noise-free audio, superior transient response plus lowest possible power consumption for energy saving
- ▲ Extremely rugged steel construction ensures long life even under the most demanding conditions
- Rack mount brackets included
- Conceived and designed by BEHRINGER Germany. Made in China

BLOCK DIAGRAM



SPECIFICATIONS

Microphone inputs (IMP Invisible Mic Preamp)

Type XLR, electronically balanced, discrete input circuit

discrete input circuit

Mic E.I.N. (20 Hz - 20 kHz)

Frequency response <10 Hz - 150 kHz (-1 dB),

<10 Hz - 200 kHz (-3 dB)

Gain range +10 to +60 dB

 $\begin{array}{lll} \text{Max. input level} & +12 \text{ dBu @ } +10 \text{ dB Gain} \\ \text{Impedance} & \text{approx. 2.6 k}\Omega \text{ balanced} \\ \text{Signal-to-noise ratio} & 110 \text{ dB / } 112 \text{ dB A-weighted} \\ & (0 \text{ dBu In @ } +22 \text{ dB gain}) \\ \end{array}$

Distortion (THD+N) 0.005% / 0.004% A-weighted

Line input

Impedance

Type 1/4" TRS connector

electronically balanced approx. 20 $k\Omega$ balanced

10 kΩ unbalanced

Gain range -10 to +40 dB Max. input level 30 dBu

Fade-out attenuation¹ (Crosstalk attenuation)

Main fader closed 90 dB Channel muted 89 dB Channel fader closed 89 dB

Frequency response

Microphone input to main out

<10 Hz - 90 kHz +0 dB / -1 dB <10 Hz - 160 kHz +0 dB / -3 dB

Stereo inputs

Type 1/4" TRS connector, electronically balanced

 $\begin{array}{ll} \text{Impedance} & \text{approx. 20 k}\Omega \\ \text{Max. input level} & \text{+22 dBu} \end{array}$

EQ mono channels

Low $80 \text{ Hz} / \pm 15 \text{ dB}$

Mid 100 Hz - 8 kHz / \pm 15 dB High 12 kHz / \pm 15 dB

EQ stereo channels

 Low
 80 Hz / ±15 dB

 Low Mid
 500 Hz / ±15 dB

 High Mid
 3 kHz / ±15 dB

 High
 12 kHz / ±15 dB

Aux sends

Type 1/4" TS connector, unbalanced

 $\begin{array}{ll} \text{Impedance} & \text{approx. 120 } \Omega \\ \text{Max. output level} & \text{+22 dBu} \end{array}$

Stereo aux returns

Type 1/4" TRS connector,

electronically balanced

Impedance approx. $20 \text{ k}\Omega$ bal. $/ 10 \text{ k}\Omega$ unbal.

Max. input level +22 dBu

Main outputs

Type XLR, electronically balanced

 $\begin{tabular}{ll} and 1/4" TRS balanced \\ Impedance & approx. 240 <math>\Omega$ balanced /

120 Ω unbalanced

Max. output level +28 dBu

Control room outputs

Type 1/4" TS connector unbalanced

 $\begin{array}{ll} \text{Impedance} & \text{approx. 120 } \Omega \\ \text{Max. output level} & \text{+22 dBu} \end{array}$

Headphones outputs

Type 1/4" TRS connector, unbalanced Max. output level +19 dBu / 150 Ω (+25 dBm)

DSP 24-bit

Converter 24-bit Sigma-Delta,

64/128-times oversampling

Sampling rate 46,875 kHz

Main mix system data²

Noise

Main mix @ -∞, Channel fader @ -∞ -100 dB

Main mix @ 0 dB,

Channel fader @ -∞ -87 dB

Main mix @ 0 dB,

Channel fader @ 0 dB -80 dB

Power supply

Power consumption 47 W

Fuse 100 - 240 V~: T 1.6 A H 250 V Mains connection Standard IEC receptacle

Physical/weight

Dimensions (H x W x D) approx. 5 3/8" x 16 1/2" x 17 1/4"

(136 mm x 418 mm x 438 mm)

Weight (net) approx. 5.9 kg

Measuring conditions:

- 1: 1 kHz rel. to 0 dBu; 20 Hz 20 kHz; line input; main output; unity gain.
- 2 20 Hz 20kHz; measured at main output. Channels 1 4 unity gain; EQ flat; all channels on main mix; channels 1/3 as far left as possible, channels 2/4 as far right as possible. Reference = +6 dBu.

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