



Technical Specifications



ULTRAGRAPH DIGITAL DEQ1024

Ultra-High Precision 24-Bit/96 kHz Equalizer,
Feedback Destroyer and Dynamics Processor

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Ultra-High Precision 24-Bit/96 kHz Equalizer, Feedback Destroyer and Dynamics Processor

- Ultra-high resolution 24-bit/96 kHz processor featuring EQ, RTA and dynamic processing for PA and mastering applications
- Unique "True Curve" Function—fader settings reflect actual frequency response
- Revolutionary FBQ detection system instantly reveals critical frequencies and can also be used as Audio Analyzer
- Automatic and ultra-fast Feedback Destroyer plus feedback indication via fader LEDs
- "Inaudible" Noise Gate/Peak Limiter function plus amazing Stereo Imager for spatial enhancement
- Additional sweepable High and Low Cut filters for removal of unwanted frequencies like floor rumble and high-frequency noise
- Integrated Pink Noise generator for perfect room equalization
- Digital AES/EBU and S/PDIF interface with selectable sample rates (44.1, 48, 96 kHz)
- Relay-controlled hard-bypass with auto-bypass function during power failure (failsafe relay)
- Highly accurate, 2 x 12-digit LED meters for easy input and output level setting
- Servo-balanced inputs and outputs on ¼" TRS and gold-plated XLR connectors
- "Planet Earth" switching power supply for maximum flexibility (100 - 240 V~), noise-free audio, superior transient response plus low power consumption for energy saving
- High-quality components and exceptionally rugged construction ensure long life
- Conceived and designed by BEHRINGER Germany

Specifications

Analog inputs

Type	electronically balanced
Connector	XLR
Impedance	22 kΩ at 1 kHz
Max. input level	+12 or +22 dBu, switchable
CMRR	80 dB typ.

Analog outputs

Type	servo-balanced
Connector	XLR
Impedance	100 Ω at 1 kHz
Max. output level	+12 or +22 dBu, switchable

System specifications

Frequency response	15 Hz to 35 kHz, +/- 3 dB
Signal-to-noise ratio	104 dBu, a-weighted, 22 Hz - 22 kHz
THD	0.004 % typ. @ +4 dBu, 1 kHz, gain 1
Crosstalk	< -85 dB, 22 Hz - 22 kHz

Bypass

Type	Relay, hard-bypass in case of power failure
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Digital inputs

Type	XLR transformer-balanced
Standard	AES/EBU or S/PDIF
Input impedance	110 Ω
Nom. input level	0.2 - 5 V peak-to-peak

Digital Outputs

Type	XLR transformer-balanced
Standard	AES/EBU or S/PDIF
Impedance	110 Ω
Output level	2 - 5 V peak-to-peak

Digital processing

Converter	24-bit Delta-Sigma, 64/128 oversampling
Sample rate	44.1 kHz, 48 kHz, 96 kHz

Graphic equalizer

Type	analog 1/3-oct EQ
Frequency range	20 Hz to 20 kHz 31 1/3-oct. bands according to ISO frequencies
Bandwidth	1/3-oct.
Control range	+/-6, +/-12 dB or 0/-24 dB (switchable)

Feedback Destroyer (FBD)

Type	digital signal analysis for feedback identification
Filter	max. 10 digital notch filters per channel, automatic feedback suppression system
Frequency range	20 Hz - 20 kHz
Bandwidth	1/10-oct.
Control range	-48 dB in 6 dB-steps

Master

Gain	-9 dB to +9 dB
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Filter

Low Cut	20 Hz to 160 Hz (12 dB/oct.)
High Cut	2.5 kHz to 16 kHz (12 dB/oct.)

Dynamics

Type	gate and limiter with digital IGC (Interactive Gain Control)
Threshold	variable: -60 to -10 dB (gate) variable: -6 to +9 dB (limiter)

Function switches

Bypass	switch, to deactivate equalizer functions
Meter in/out	selects between input and output metering
Fader range	sets the maximal cut/boost for the 31 bands
Standby	switches into standby mode
Pink noise	-48 dB to 0 dB
FB indicator	recognition of frequency band intensity
True Curve	Algorithm for achieving filter curve linearity

Displays

Input/output level	12-digit LED display: -48/-36/-24/-18/-12/-6/-3/0/+3/+6/+9 dB/CLIP
Function switch	LED display of each switch (except for clock and configuration switches)

Power supply

Voltage	85 to 250 V~, 50/60 Hz, auto range
Power consumption	typ. 10 W
Fuse	T 1 A H
Mains connector	Standard IEC receptacle

Dimensions/Weight

Dimensions (H x W x D)	approx. 3.5 x 19 x 5.3" approx. 89 x 482.6 x 135 mm
Shipping weight	approx. 2.5 kg / 5 lbs

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