

ULTRA-VOICE DIGITAL VX2496



Technical Specifications

Version 1.0 February 2003

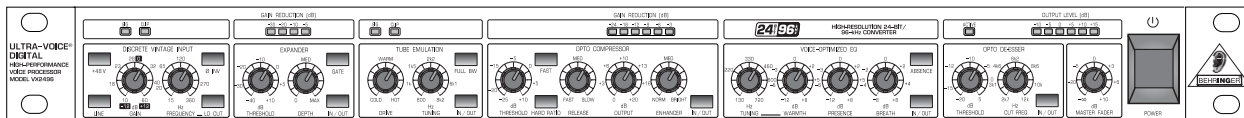
ENGLISH

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ULTRA-VOICE DIGITAL

Professional High-Performance Mic Preamplifier/Voice Processor with AES/EBU Output



- ▲ Ultra low-noise discrete vintage-design mic/line input stage
- ▲ 24-bit AES/EBU output with selectable 44.1, 48, 88.2 and 96 kHz sampling rates or external clocking
- ▲ Authentic tube emulation circuitry for typical tube and tape saturation sounds
- ▲ True RMS expander for extremely smooth noise reduction
- ▲ Opto compressor for inaudible level control and creative sound processing
- ▲ Integrated dynamic enhancer compensates for high-frequencies lost through compression
- ▲ Voice-optimized equalizer specially designed for voice enhancement
- ▲ Opto de-esser for quick removal of excessive sibilance from your vocal track
- ▲ High-performance THAT® VCA for ultimate signal purity
- ▲ Ultra low-noise 4580 operational amplifiers for outstanding audio performance
- ▲ Accurate LED metering for crystal-clear level and processor indication
- ▲ Servo-balanced gold-plated XLR connectors for all main inputs and outputs
- ▲ Ultra high-precision ALPS® potentiometers for ultimate accuracy and repeatability
- ▲ Illuminated switches ensure perfect operation in dark stage environments
- ▲ High-quality components and exceptionally rugged construction for long life and durability
- ▲ Shielded toroidal power transformer for lowest noise interference
- ▲ Manufactured under ISO9000 certified management system

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SPECIFICATIONS

AUDIO INPUTS

MIC	XLR connector, HF shielded, balanced
Line	XLR connector and 1/4" jack HF shielded, balanced
Insert Return	1/4" jack unbalanced
Impedance	
MIC	1.3 k Ω unbalanced, 2.6 k Ω balanced
Line	XLR connector and 1/4" jack 10 k Ω unbalanced, 20 k Ω balanced
Insert Return	10 k Ω unbalanced
Max. Input Level	
MIC	+11 dBu unbalanced and balanced
Line	XLR and jack +21 dBu balanced and unbalanced
Insert Return	+21 dBu
CMRR	typical 40 dB, >60 dB @ 1 kHz (except Insert Return)

AUDIO OUTPUTS

Recording Out XLR	Electronically controlled servo-balanced output stages
Main Out XLR	Electronically controlled servo-balanced output stages
Main Out Jack	1/4" jack unbalanced
Impedance	
Rec. Out	120 Ω balanced, 60 Ω unbalanced @ 1 kHz
Main Out XLR	120 Ω balanced, 60 Ω unbalanced @ 1 kHz
Main Out Jack	100 Ω unbalanced @ 1 kHz
Insert Send	100 Ω unbalanced @ 1 kHz
Output Level	
Rec. Out	max. +21 dBu balanced and unbalanced
Main Out XLR	max. +21 dBu balanced and unbalanced
Main Out Jack	max. +21 dBu unbalanced
Insert Send	max. +21 dBu unbalanced

SYSTEM DATA

Bandwidth	20 Hz to 20 kHz, +0/-0.6 dB
Frequency Response	Line: <10 Hz to >200 kHz, +0/-1.7 dB -> Main Out MIC: <10 Hz to >200 kHz, +0/-2.5 dB -> Main Out
S/N Ratio	123.6 dB dynamics -> Insert Send 118.5 dB dynamics -> Main Out 122 dB dynamics -> Recording Out 130 dB E.I.N, Mic In -> Insert Send 105 dB Line -> Insert Send @ +4 dBu/1 kHz
THD	0.006% typ. @ -30 dBu, 1 kHz, Gain 30 dB, Mic In -> Insert Send 0.01% typ. @ -30 dBu, 1 kHz, Gain 30 dB, Mic In -> Main Out 0.001% typ. @ +4 dBu, 1 kHz, Unity Gain, Line In -> Insert Send 0.004% typ. @ +4 dBu, 1 kHz, Unity Gain, Line In -> Main Out

DIGITAL OUTPUT

Type	High-resolution 24-bit AKMA/D converter
Standard	AES/EBU / XLR transformer-balanced
Output Impedance	110 Ω balanced
Nom. Output Level	5 V peak-to-peak

INTERNAL SAMPLING FREQUENCY

44.1 / 48 / 88.2 / 96 kHz (switchable)

WORDCLOCK INPUT

Type	BNC
Frequency Range	31 to 100 kHz
Input Impedance	100 k Ω
Nom. Input Level	2 to 5 V peak-to-peak

EXPANDER/GATE SECTION

Type	RMS Expander
Threshold	variable (OFF to +10 dB)
Ratio	Expander: variable (1:1 to 3:1) Gate: 1: ∞
Attack	<1 msec / 20 dB, fixed
Release	100 msec / 20 dB, fixed

COMPRESSOR SECTION

Type	Opto Compressor
Threshold	variable (-25 to +10 dB)
Ratio	switchable (3:1 / 9:1)
Manual Release Time	variable (10 dB / 10 msec to 10 dB / 1.5 sec)
Manual Attack Time	10 dB / 10 msec Fast: 20 dB / 10 msec
Output	variable (0 bis +20 dB)

DE-ESSER SECTION

Type	VAD (Voice-Adaptive)-De-EsSer
Filter Frequency	2.7 to 12 kHz
Filter Quality	program-dependent, max. Q = 4
Attenuation	max. 18 dB

TUBE EMULATION SECTION

Filter Frequency	variable, 800 Hz to 12kHz
Peak Frequency	Full Bandwidth, lower Cut-off Frequency = 200 Hz
Characteristic	Band Pass, 1st Order (6 dB/Oct.) Full Bandwidth: High Pass, 1st Order (6 dB/Oct.)
Boost	variable, max. 20 dB

VOICE OPTIMIZED EQ SECTION

Bands	3
Filter Quality	Boost: 0.4 / Cut: 3
Filter Frequencies	Breath: Type shelving, lower Cut-off Frequency 10 kHz Presence: Type peak, Peak Frequency 1.5 kHz Warmth: Type peak, semiparametric Peak Frequency variable from 130 to 720 Hz

POWER SUPPLY

Mains Voltage	USA/Canada 120 V ~, 60 Hz U.K./Australia 240 V ~, 50 Hz Europe 230 V ~, 50 Hz
General	
Export Model	100-120V~, 200-240V~, 50-60Hz
Power Consumption	max. 25 W
Fuse	100 - 120 V ~: T 630 mA H 200 - 240 V ~: T 315 mA H
Mains Connection	Standard IEC Receptacle

DIMENSIONS (H x W x D)

approx. 1 3/4" (44.5 mm) x
19" (482.6 mm) x 8 1/2" (217 mm)

WEIGHT

approx. 2.2 kg

SHIPPING WEIGHT

approx. 3.4 kg

BEHRINGER makes every effort to ensure the highest standard of quality. Necessary modifications are carried out without notice. Thus, the specifications and design of the device may differ from the information given in this manual.

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