

ULTRAVOICE DIGITAL VX2496



Technical Specifications

Version 1.1 September 2003

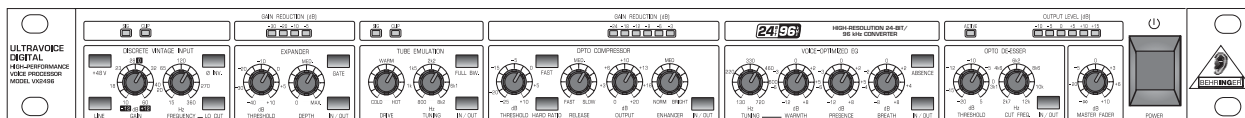
ENGLISH



ULTRAVOICE DIGITAL VX2496

ULTRAVOICE 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 VCAs 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
- ▲ Designed in Germany. 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 |
| Output | Fast: 20 dB / 10 msec 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 Europe/U.K./Australia 230 V~, 50 Hz Japan 100 V~, 50 - 60 Hz General export model 120/230 V~, 50 - 60 Hz |
| 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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