ULTRA-VOICE DIGITAL VX2496

Technical Specifications

ENGLISH

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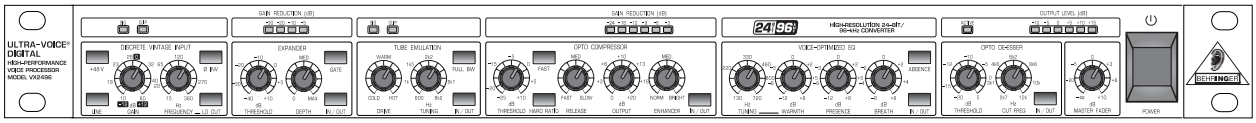
ULTRA-VOICE DIGITAL

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

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 kΩ unbalanced, 2.6 kΩ balanced
Line	XLR connector and 1/4" jack 10 kΩ unbalanced, 20 kΩ balanced
Insert Return	10 kΩ 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 AKM A/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 kΩ
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 ¾" (44.5 mm) x 19" (482.6 mm) x 8 ½" (217 mm)

WEIGHT approx. 2.2 kg

SHIPPING WEIGHT approx. 3.4 kg

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