

5.4 WORDCLOCK connection

If several devices shall be embedded into a digital recording system comprising, for example, a digital mixing console, all connected digital devices must be synchronized using a common wordclock signal. To this end, your DEQ2496 features a wordclock input, which can be used to control external equipment via wordclock signals. The input supports the sample rates 44.1, 48, 88.2 and 96 kHz, and can be activated only if the analog inputs are used.

6. Operating Software

The operating software of your ULTRACURVE PRO DEQ2496 is constantly being developed to improve its performance and adapt the operation of the unit to user requirements. We would therefore be pleased to hear about your suggestions and ideas for improvement. We will try to include your suggestions in the next software revision. Information on new software versions are available from the trade press, your retailer, from our web site at behringer.com or directly from BEHRINGER (Tel. +49 2154 9206 4166).

The current software revision of your ULTRACURVE PRO DEQ2496 is displayed in the UTILITY menu on page 1 (top right).

7. Specifications

Analog Inputs

Type	electronically balanced
Connector	XLR
Impedance	22 k Ω at 1 kHz
Max. input level	+12 or +22 dBu, switchable
CMRR	40 dB typ.

Analog Outputs (Main)

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

Analog Outputs (Aux)

Type	servo-balanced
Connector	¼" stereo jack
Impedance	100 Ω at 1 kHz
Max. output level	+12 dBu

System Specifications

Frequency range	10 Hz to 35 kHz (-1 dB) @ 96 kHz sampling rate
Signal-to-noise ratio	> 113 dB main input/output > 107 dB aux output
THD	0.007 % typ. @ +4 dBu, 1 kHz, unity gain
Crosstalk	< -92 dB/-95 dB

Bypass

Type	Relay, hard-bypass in case of power failure
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Measurement Microphone Input

Type	electronically balanced
Input impedance	2 k Ω
Max. input level (LINE)	variable from -14 dBu to +22 dBu
Max. input level (MIC)	variable from -42 dBV/Pa to -6 dBV/Pa
Phantom power	+15 V, switchable

Digital Input 1

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 Input 2

Type	TOSLINK optical
Standard	AES/EBU or S/PDIF

Digital Output 1

Type	XLR transformer-balanced
Standard	AES/EBU or S/PDIF
Impedance	110 Ω
Output level	3.5 V peak-to-peak

Digital Output 2

Type	TOSLINK optical
Standard	AES/EBU or S/PDIF

Sync Input

Type	BNC
Standard	Wordclock (1 x sample rate)
Input impedance	50 k Ω
Nom. level	2 - 6 V peak-to-peak

MIDI Interface

Type	5-pole DIN jacks In/Out/Thru
Implementation	cf. MIDI implementation chart

Digital Processing

Converter	24-bit Delta-Sigma, 64/128-oversampling (AKM®)
Sample rate	44.1, 48, 88.2, 96 kHz

Graphic Equalizer (GEQ)

Type	digital 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	+15 to -15 dB

Parametric Equalizer (PEQ)

Type	max. 10 independent, fully parametric filters per channel
Frequency range	20 Hz to 20 kHz
Bandwidth	1/10 to 10 oct., shelving filters (6 and 12 dB)
Control range	+15 to -15 dB

Dynamic Equalizer (DEQ)

Type	max. 3 independent, fully parametric filters per channel
Frequency range	20 Hz to 20 kHz
Bandwidth	1/10 to 10 oct., shelving filters (6 and 12 dB)
Control range	+15 to -15 dB
Threshold	variable from 0 to -60 dB
Attack	0 to 200 msec
Release	20 to 4,000 msec
Ratio	1:2 to 1:100

Feedback Destroyer (FBD)

Type	digital signal analysis for feedback identification
Filter	max. 10 digital notch filters per channel, programmable or as automatic feedback suppression system
Frequency range	20 Hz to 20 kHz
Bandwidth	1/10 to 1/60 oct.
Control range	0 to -60 dB

Digital Delay

Type	digital stereo delay
Max. delay time	300 ms, independently adjustable for each channel
Min. resolution	0.02 ms
Delay units	seconds, meters or feet

Level Meter

Type	digital level meter with simultaneous graphic display of peak and RMS values and virtual analog VU meter
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SPL Meter

Weighting	dB (A), dB (C) or OFF
Microphone calibration	-42 dBV/Pa to -6 dBV/Pa

Dynamics

Type	Expander or compressor with digital IGC (Interactive Gain Control)
Threshold	variable from 0 to -60 dB
Attack	0 to 200 msec
Release	20 to 4,000 msec
Ratio	1:1.1 to 1:100

Limiter

Type	Peak limiter (zero attack)
Hold	0 to 1,000 msec
Threshold	variable from 0 to -24 dB
Release	20 to 4,000 msec

Real-Time Analyzer

Type	digital 61-band FFT analyzer
Frequency range	20 Hz to 20 kHz, 61 bands according to ISO frequencies
Detectors	peak and average
Noise generator	pink noise, levels from 0 to -60 dB

Display

Type	320 x 80 dot-matrix LC display
Backlighting	LED, orange
Contrast	adjustable

Memory

Presets	64 memory locations with 16-character names, single modules can be recalled and saved
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Power Supply

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

Dimensions/Weight

Dimensions (H x D x W)	44.5 x 482.6 x 215 mm (1.75 x 19 x 8.5")
Weight	approx. 2.24 kg (4.9 lbs)
Shipping weight	approx. 3.09 kg (6.8 lbs)

BEHRINGER is constantly striving to maintain the highest professional standards. As a result of these efforts, modifications may be made from time to time to existing products without prior notice. Specifications and appearance may differ from those listed or illustrated.

7.1 MIDI implementation

Function	Send	Receive	Notes
Midi Channel	1 ... 16	1 ... 16	
Mode	N	N	
Note Number	N	N	
Velocity	N	N	
After Touch	N	N	
Pitch Bender	N	N	
Control Change			
1-31	Y (Range: 0-61)	Y (Range: 0-61)	GEQ Left (20 Hz ... 20 kHz)
33-63	Y (Range: 0-61)	Y (Range: 0-61)	GEQ Right (20 Hz ... 20 kHz)
Program Change	Y (Range: 0-64)	Y (Range: 0-64)	Presets (1-64) and Initial Data (0)
System Exclusive	Y	Y	see SysEx-Dokumentation*
System Common	N	N	
System Real Time	N	N	

* Download at behringer.com