

# HELIX BOARD 12 UNIVERSAL

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12-Input Mixer with FireWire & USB 2.0 Interfaces

- USB 2.0 and FireWire interfaces for sending all input channels independently to computer with near-zero latency
- 2 channels of monitoring from computer through USB or FireWire interface
- Sampling rate selectable up to 96 kHz in 24-bit resolution
- Pre/post setting for swapping signals sent to computer from pre-low cut, -EQ to post-EQ, post-fader
- 100+ Tap 32/40-bit high-definition digital multi-effects
- Steinberg's Cubase LE 4 workstation software included



## FEATURES

- ▶ 12-input small-format analog mixer with extremely low noise circuitry
- ▶ Onboard USB 2.0 and FireWire interfaces for sending up to 10 independent channels of audio to computer with near-zero latency
- ▶ Sampling rate selectable up to 96 kHz in 24-bit resolution
- ▶ A pre/post switch is available on each channel for swapping channel sends to computer from pre-low cut, -EQ to post-EQ, post-fader signals
- ▶ DFX, our 32/40-bit digital multi-effect processor with 100 programs plus tap delay, tone generator and foot switch jacks
- ▶ Two channels of monitoring from computer via USB 2.0 or FireWire interface
- ▶ Channel 9/10 routed to computer can be selected from main mix, ALT 3/4 and AUX 1/2
- ▶ Four mono Mic/Line channels
- ▶ Two stereo channels, two stereo AUX returns, two AUX sends
- ▶ 3-band EQ on each channel
- ▶ 75 Hz low-cut filter on mono channel
- ▶ Inserts on channel 1 & 2
- ▶ +48V phantom power on Mic channels
- ▶ Stereo AUX send 1 cue for monitoring individual channel
- ▶ Master AUX section with EFX to Monitor
- ▶ Extra ALT 3-4 stereo bus
- ▶ Control room/Phones source matrix
- ▶ Balanced master output with 60 mm fader control
- ▶ High-volume headphone output
- ▶ Compatible with Mac OS X and Windows XP & Vista
- ▶ Bundled with Steinberg's Cubase LE 4 digital audio workstation software

The Helix Board 12 Universal is part of the new generation of Phonic's popular Helix Board mixers. It features 96 KHz USB 2.0 and FireWire interfaces that let you stream up to 10 independent channels of audio to the computer and return two channels to the mixer for monitoring - all with near-zero latency. Users are also able to utilize the main mix, ALT 3/4 and AUX 1 & AUX 2 signal for recording on the final two channels. Four extremely low noise Mic/Line preamps, each with 75 Hz low cut filters, inserts and phantom power, and two stereo Line channels offer a variety of input options. Pre/Post switches on each input channel allow users to adjust the outgoing USB 2.0 / FireWire signal between a pre-EQ, pre-fader, pre-low cut, to a post-EQ, post-fader signal. Each channel has a 3-band EQ and a mute button that sends the signal to the ALT 3-4 stereo bus, where several inputs can be grouped and controlled in tandem. Tracking individual inputs is easy with the stereo AUX cue. An onboard 32/40-bit digital multi-effect processor provides 100 popular programs, tap delay and test tones, and can be controlled through the use of a footswitch. Stereo RCA inputs and outputs make the addition of digital and analog playback and recording devices effortless. Additional features include two AUX sends, two stereo AUX returns, balanced stereo main outs, master AUX section with EFX to monitor, control room/phones source matrix and Steinberg's Cubase LE 4 digital audio workstation software.

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## SPECIFICATIONS

Inputs	
<b>Total channels</b>	6
Balanced Mono Mic/Line channel	4
Balanced Stereo Line Channel	2
Aux return	2 stereo
2T input	Stereo RCA
Outputs	
Main L/R stereo	2 x 1/4" TRS, Bal.
ALT 3-4	2 x 1/4" TRS, Bal.
Rec out with trim control	Stereo RCA
CTRL RM L/R	2 x 1/4" TS
Phones	1
<b>FireWire / USB 2.0 Interface</b>	10 in & 2 out, 24-bit / 96 kHz
Channel Strips	
Insert Points	2
Aux send	2
Pan/Balance control	Yes
Volume Controls	Rotary
Master Section	
Stereo AUX returns	2
Effects return to monitor	1
Control room/Phones Level Control	Yes
Faders	Main L/R, 60mm fader
Metering	
Number of channels	2
Segments	8
<b>Phantom Power Supply</b>	+48VDC
Switches	Master
<b>Effect processor</b>	100 programs plus tap delay; foot switch (effect on/off, tap)
Frequency Response (Mic input to any output)	
20Hz ~ 60KHz	+0/-1 dB

20Hz ~ 100KHz	+0/-3 dB
<b>Crosstalk</b> (1KHz @ 0dBu, 20Hz to 20KHz bandwidth, channel in to main L/R outputs)	
Channel fader down, other channels at unity	<-90 dB
<b>Noise</b> (20Hz~20KHz; measured at main output, Channels 1-4 unit gain; EQ flat; all channels on main mix; channels 1/3 as far left as possible, channels 2/4 as far right as possible. Reference=+6dBu)	
Master @ unity, channel fader down	-86.5 dBu
Master @ unity, channel fader @ unity	-84 dBu
S/N ration, ref to +4	>90 dB
<b>Microphone Preamp E.I.N.</b> (150 ohms terminated, max gain)	<-129.5 dBm
<b>THD</b> (Any output, 1KHz @ +14dBu, 20Hz to 20KHz, channel inputs)	<0.005%
<b>CMRR</b> (1 KHz @ -60dBu, Gain at maximum)	80 dB
Maximum Level	
Mic preamp input	+10 dBu
All other input	+22 dBu
Balanced output	+28 dBu
Impedance	
Mic preamp input	2 K ohms
All other input (except insert)	10 K ohms
RCA 2T output	1.1 K ohms
Equalization	3-band, +/-15 dB
Low EQ	80 Hz
Mid EQ	2.5 KHz
Hi EQ	12 KHz
Low cut filter	75Hz (-18dB/oct)
Power Requirement	
(external power supply, depends on region)	100VAC, 120VAC, 220~240VAC, 50/60Hz
<b>Net Weight</b>	6.4 lbs (2.9 kg)
<b>Dimensions (WxHxD)</b>	245.4x86x271.3 mm (9.7"x3.4"x10.7")



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Information in this document is subject to change without notice

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