



# HELIX COMPARISON CHART

v.1.02 (March 14, 2017)

	HELIX LT	HELIX FLOOR	HELIX RACK/CONTROL
<b>HARDWARE</b>			
DSP Processor(s)	2x SHARC ADSP-21369 @ 450 MHz	2x SHARC ADSP-21469 @ 450 MHz	2x SHARC ADSP-21469 @ 450 MHz
A/D converters	Cirrus-Logic CS5368 (8 ch, 24-bit/192kHz)	Cirrus-Logic CS5368 (8 ch, 24-bit/192kHz)	Cirrus-Logic CS5368 (8 ch, 24-bit/192kHz)
D/A converters	Cirrus-Logic CS4385 (8 ch, 24-bit/192kHz)	Cirrus-Logic CS4385 (8 ch, 24-bit/192kHz)	Cirrus-Logic CS4385 (8 ch, 24-bit/192kHz)
Chassis	Bent steel	Solid extruded aluminum	Rack: Extruded aluminum and bent steel Control: bent steel
Treadle	Bent steel	Cast aluminum	–
Side panels	Bent steel with impact-resistant plastic/ overmolded non-slip rubber	Cast aluminum	Control: bent steel with impact-resistant plastic/overmolded non-slip rubber
Main display	6.2" diag. 800 x 480-pixel color LCD	6.2" diag. 800 x 480-pixel color LCD	Rack: 6.2" diag. 800 x 480-pixel color LCD Control: 20-character LCD
Footswitch "scribble strip" LCDs	– (Assignments appear as new Performance View on LCD)	✓ 13x (128 x 32-pixel)	✓ 13x (128 x 32-pixel)
Capacitive touch circuitry per footswitch	✓	✓	✓
Power supply	Internal AC (IEC connector)	Internal AC (IEC connector)	Rack: Internal AC (IEC connector) Control: DC In for future use (TBD)
Dimensions	20.86 x 11.87 x 3.61 inches	22.05 x 11.87 x 3.61 inches	Rack: 19 x 5.25 x 9.5 inches Control: 17.2 x 2.5 x 9.4 inches
Weight	12.0 lbs	14.6 lbs	Rack: 9.3 lbs; Control: 7.2 lbs
<b>INS AND OUTS</b>			
Guitar In—Variable impedance	✓	✓	✓
Guitar In—123dB dynamic range	✓	✓	✓
XLR Mic Preamp	–	✓ Studio quality (same as StageScape)	✓ Studio quality (same as StageScape)
Variac input	✓	✓	✓
1/4" Outputs	✓	✓	✓
XLR Outputs	✓	✓	✓
Guitar Thru Out (Buffered)	–	–	✓
FX Loop(s)	2x send, 2x return, stereo-linkable	4x send, 4x return, stereo-linkable	4x send, 4x return, stereo-linkable
Additional Guitar/Bass inputs	2 (Return 1-2)	5 (Aux, Return 1-4)	5 (Aux, Return 1-4)
Additional Line inputs	2 (Return 1-2)	4 (Return 1-4)	4 (Return 1-4)
Expression pedal in	EXP 2 (shared with Amp Control Out 1/2; globally selectable)	EXP 2, EXP 3	Rack: EXP 1, EXP 2, EXP 3, Toe Switch Control: EXP 1, EXP 2, EXP 3, Toe Switch
External Amp Control outs	2 (1=Tip, 2=Ring; shared with EXP 2; globally selectable)	2 (1=Tip, 2=Ring)	2 (1=Tip, 2=Ring)
CV (Control Voltage)/Expression out	–	✓	✓
MIDI In, Out/Thru	✓	✓	✓

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S/PDIF digital	– (L6 LINK   AES/EBU can act as S/PDIF out with adapter)	In, Out	In, Out
L6 LINK output	✓ Shared with AES/EBU out	✓ Shared with AES/EBU out	✓ Shared with AES/EBU out
AES/EBU	✓ Out (shared with L6 LINK out)	✓ Out (shared with L6 LINK out)	✓ In, Out (shared with L6 LINK out)
BNC Wordclock In	–	–	✓ With terminator switch
USB Audio Interface	8-in, 8-out	8-in, 8-out	8-in, 8-out
MIDI over USB	✓	✓	✓
Class-compliant audio	✓	✓	✓
iPhone/iPad recording and playback	✓	✓	✓
<b>PRESETS/SETLISTS</b>			
Number of preset locations	1,024 (8 setlists x 128 presets)	1,024 (8 setlists x 128 presets)	1,024 (8 setlists x 128 presets)
<b>PROCESSING</b>			
Number of processing block locations	Up to 32 (freely assignable, DSP permitting)	Up to 32 (freely assignable, DSP permitting)	Up to 32 (freely assignable, DSP permitting)
Discrete stereo paths (input to output)	Up to 4	Up to 4	Up to 4
Guitar amp models	50	50	50
Bass amp models	12	12	12
Cabs	37	37	37
Mics	16	16	16
Effects	104	104	104
User or third-party IRs (Impulse Responses)	✓ 128x 1024 or 2048-point mono	✓ 128x 1024 or 2048-point mono	✓ 128x 1024 or 2048-point mono
Simultaneous Amp+Cab, Amp, or Preamp blocks	Up to 4 (2 on each path), DSP permitting	Up to 4 (2 on each path), DSP permitting	Up to 4 (2 on each path), DSP permitting
Simultaneous Cab blocks	Up to 4 (2 on each path), DSP permitting	Up to 4 (2 on each path), DSP permitting	Up to 4 (2 on each path), DSP permitting
Simultaneous Impulse Response blocks	Up to 4 1024-point (2 on each path) or up to 2 2048-point (1 on each path), DSP permitting	Up to 4 1024-point (2 on each path) or up to 2 2048-point (1 on each path), DSP permitting	Up to 4 1024-point (2 on each path) or up to 2 2048-point (1 on each path), DSP permitting
Dual Cab blocks	✓	✓	✓
Input gate	✓ 4 (one per Input block)	✓ 4 (one per Input block)	✓ 4 (one per Input block)
A/B or Crossover into parallel path	✓	✓	✓
Reverb, Delay, FX Loop bypass trails	Per block	Per block	Per block
Looper memory	120 sec mono, 60 sec stereo (1/2-speed)	120 sec mono, 60 sec stereo (1/2-speed)	120 sec mono, 60 sec stereo (1/2-speed)
Global EQ	✓ 3 fully parametric bands + high and low cut filters with assignable outputs	✓ 3 fully parametric bands + high and low cut filters with assignable outputs	✓ 3 fully parametric bands + high and low cut filters with assignable outputs
<b>FOOTSWITCHES</b>			
Number of footswitches	12 + EXP Toe	12 + EXP Toe	12 (EXP Toe via 1/4" jack)
Instant block/item selection (briefly touch switch)	✓	✓	✓

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Footswitch Quick Assign (touch switch for 2 seconds)	✓	✓	✓
Swap all footswitch assignments	✓	✓	✓
Custom labeling of Stomp footswitches	✓ Performance View only	✓	✓
Custom color assignment of switch LEDs	✓	✓	✓
Per-snapshot memory of all block states	✓	✓	✓
Copy/paste/rename snapshots	✓	✓	✓
Footswitch Types	Latching, Momentary	Latching, Momentary	Latching, Momentary
Up/Down switches (Hold both to cycle type)	Bank Queue, Preset Up/Down, Snapshot Up/Down	Bank Queue, Preset Up/Down, Snapshot Up/Down	Bank Queue, Preset Up/Down, Snapshot Up/Down
Maximum number of preset switches	8	8	8
Maximum number of stomp switches	8 + EXP Toe	10 + EXP Toe	10 + EXP Toe
Maximum number of snapshot switches	8	8	8
Pedal Edit mode (edit tones with your feet while playing)	✓ Performance View only	✓	✓
Pedal Edit block select view	8 blocks	10 blocks	10 blocks
CONTROLLERS			
Number of controllers	108 (14 + 94 via MIDI CC)	109 (15 + 94 via MIDI CC)	109 (15 + 94 via MIDI CC)
Controller Quick Assign (press knob for 2 seconds)	✓	✓	✓
Learn controller	✓	✓	✓
Max # of assignments per preset	64	64	64
Max # of assignments per controller	64	64	64
Min/max range per parameter (including reverse)	✓	✓	✓
Adjust parameters per snapshot	✓ 64	✓ 64	✓ 64
Footswitch as controller (toggle min/max values)	✓ 8 per footswitch	✓ 8 per footswitch	✓ 8 per footswitch
Variac volume/tone knobs as controllers	✓	✓	✓
Incoming MIDI CC as block bypass	✓	✓	✓
Incoming MIDI CC messages as controller	✓ 94 (excludes CCs reserved for global functions)	✓ 94 (excludes CCs reserved for global functions)	✓ 94 (excludes CCs reserved for global functions)
COMMAND CENTER			
Instant commands on preset load	✓ 6 per preset	✓ 6 per preset	✓ 6 per preset
MIDI Bank/Program Change	MSB, LSB, and/or PC	MSB, LSB, and/or PC	MSB, LSB, and/or PC
MIDI CC	✓	✓	✓
MIDI CC Toggle	✓	✓	✓
MIDI notes	✓ Momentary or latching	✓ Momentary or latching	✓ Momentary or latching

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MIDI Machine Control (MMC)	✓	✓	✓
Remote control of external amp	✓ 1 (Tip), 2 (Ring)	✓ 1 (Tip), 2 (Ring)	✓ 1 (Tip), 2 (Ring)
CV (Control Voltage)/Expression out	–	✓	✓
CV/Expression Toggle	–	✓	✓
Per-snapshot controller values/toggle states	✓	✓	✓
OTHER FEATURES			
Comprehensive Mac/PC Editor	<i>Helix Edit</i>	<i>Helix Edit</i>	<i>Helix Edit</i>
Dedicated dry USB out channels (for reamping)	✓ 2, selectable input sources	✓ 2, selectable input sources	✓ 2, selectable input sources
Dedicated dry USB in channels (for jamming)	✓ 2, selectable output assignment	✓ 2, selectable output assignment	✓ 2, selectable output assignment
USB In 1/2 Level control	✓ Recallable via Firmware	✓ Recallable via Firmware	✓ Recallable via Firmware
Volume knob controls	Assignable outputs	Assignable outputs	Assignable outputs
Headphones monitor	Assignable outputs	Assignable outputs	Assignable outputs
Discrete phones volume	–	✓	✓
Copy/paste blocks to current or different preset	✓	✓	✓
Tuner input/output routing	✓	✓	✓
Tuner offsets	✓	✓	✓
Variac model and tuning recall	✓	✓	✓