



PRODUCT OVERVIEW

The Waves eMotion LV1 Classic is a mixing console for live sound, including front-of-house, monitor, and broadcast applications. The mixing engine processes 64 input channels and 44 mix busses, and uses on-board 16 I/O channels, and easy I/O channel expansion using SoundGrid interfaces over 1Gb ethernet network.

Main Features

- 64 mono/stereo input channels and 44 mono/stereo buses: 8 groups, 24 auxes, 8 matrices, 3 master, cue
- 16 Waves Signature Preamps for mic/line inputs with digital control
- 12 line outputs, 2 AES3 outputs, AES3 SRC input
- Built-in powerful SoundGrid server for mix engine and plugin processing
- Double Precision 32-bit floating point mix engine (44.1–96 kHz) with Latency as low as 0.8 ms
- 21.5" multi-touch screen with 1000 Nit brightness
- 16+1 motorized 100 mm Alps faders
- 16+1 precision encoders, with mini-displays including per-channel LCD metering, and Select/Mute/Solo
- 8 layers keys and 8 utility keys and a tempo pad
- 16+2 customizable user defined keys
- 4 SoundGrid switch ports: 2 Ethercon + 2 Rj45
- Hi-power H/P output with 1/4" jack + minijack
- HDMI / 8 USBs / remote network
- 12v XLR4 lamp connection
- Dual power supply for redundancy
- 8 Mute groups and 16 Link DCAs with Spill function
- 8-slot rack hosts 8 plugins per input channel + all mix channels
- Plugins included with the console: Waves Tune Real-Time, F6 Dynamic EQ, eMo Q4 EQ, eMo D5 Dynamics, eMo F4 Filter, GEQ, X-FDBK, Primary Source Expander, R-Comp, R-Bass, H-Delay, Doubler, R-Verb, TrueVerb, GTR3, Magma Tube Channel Strip, eMo Generator
- Custom colors per channel and custom options for mixing layout
- Up to 1000 scenes with Recall Safe and Scope Filters
- Record 16 tracks locally to USB / Stereo playback from USB / 128 tracks to/from remote computers



A&E SPECIFICATIONS

The Waves eMotion LV1 Classic digital mixing console shall be designed for Live sound and Broadcast applications. The Waves eMotion LV1 Classic digital mixing console shall be designed with sheet metal chassis and surrounding plastic frame. The Waves eMotion LV1 Classic shall have 16 digitally controlled microphone / line level inputs on XLR/TRS combo connectors, 12 line level outputs on XLR connectors and two phones outputs on ¼ inch and 1/8 inch TRS connections with a gain control potentiometer. The Waves eMotion LV1 Classic shall have a stereo AES3 input and two stereo AES3 output interfaces over XLR connectors.

The Waves eMotion LV1 Classic digital mixing console shall be designed with a 21.5 inch touch screen display monitor, and brightness control potentiometer. The Waves eMotion LV1 Classic digital mixing console shall have an integrated control surface with 17 motorized 100mm faders, 17 rotary encoders, and 68 rubber toggle switches. The Waves eMotion LV1 Classic shall support an Ethernet connection on 2 EtherCon connectors and 2 RJ45 connectors for SoundGrid digital audio and control transport protocol. The Waves eMotion LV1 Classic shall support an Ethernet connection on RJ45 connector for network and internet connections. The Waves eMotion LV1 Classic shall include an internal DSP server based on intel processors and a main CPU for user interface and display processing, as well as an FPGA digital control module.

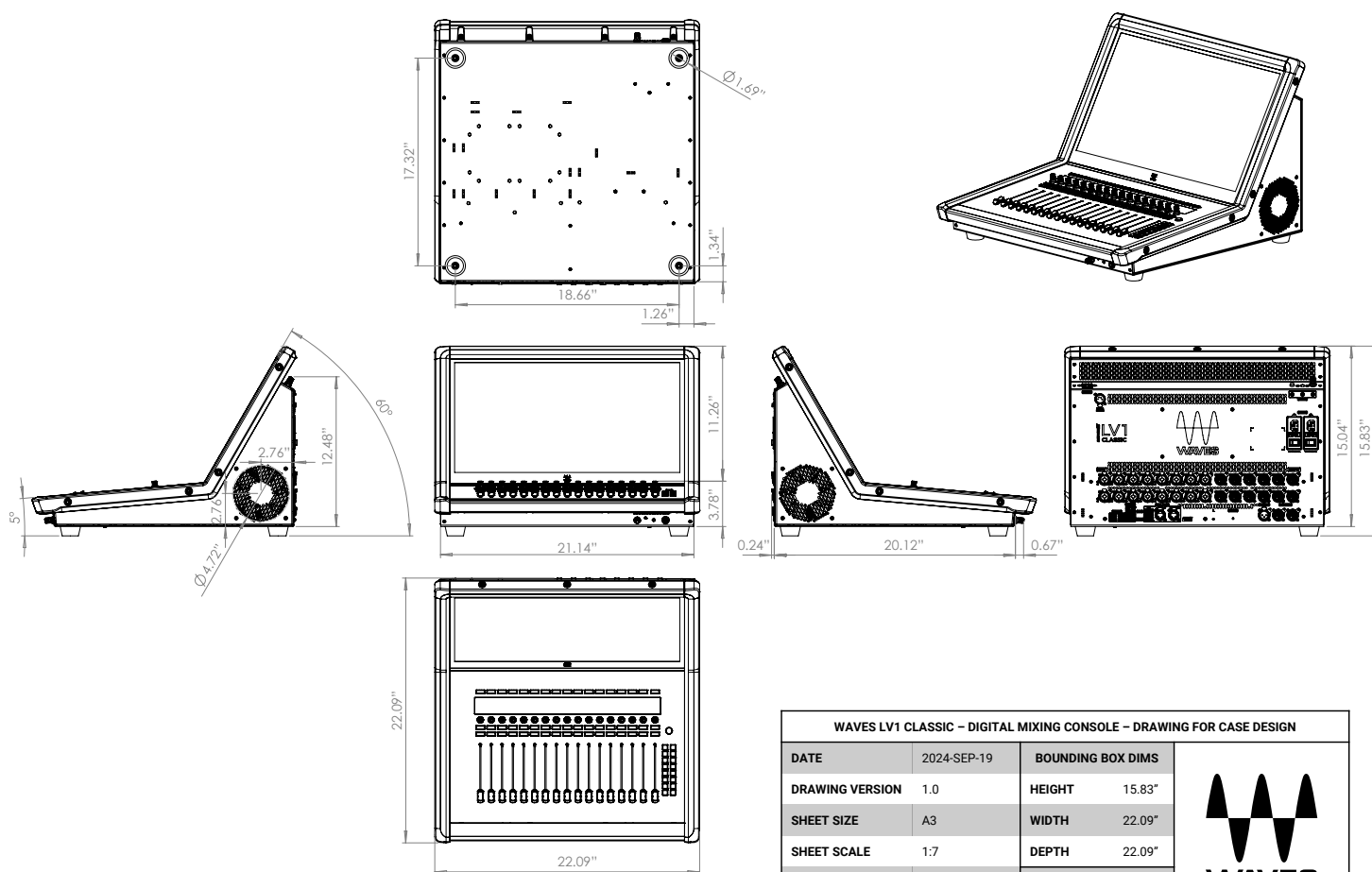
The Waves eMotion LV1 Classic shall support USB connections over 8 USB-A connectors. The Waves eMotion LV1 Classic shall support external display monitor connection on HDMI connector. The Waves eMotion LV1 Classic shall have a LED lamp DC power outlet on an XLR 4 connector. The Waves eMotion LV1 Classic shall have two AC power inlet modules on the back panel, including an IEC mains connectors, a fuses, and an on/off switches. The Waves eMotion LV1 Classic shall have a soft power on/off switch and a system restart switch.

The Waves eMotion LV1 Classic shall have the required Waves software pre-installed and pre-activated, ready for use. The Waves eMotion LV1 Classic shall be CE marked, UL listed, and shall be compliant with FCC and CB regulations. The Waves eMotion LV1 Classic warranty period shall be 12 months, with additional 12 months extension upon registration.



DIMENSIONS

W x D x H	561 mm (w) x 561 mm (d) x 402 mm (h) 22.1 inch (w) x 22.1 inch (d) x 15.8 inch (h)
Weight	17.3 kg (38.1 lbs)



WAVES LV1 CLASSIC – DIGITAL MIXING CONSOLE – DRAWING FOR CASE DESIGN			
DATE	2024-SEP-19	BOUNDING BOX DIMS	
DRAWING VERSION	1.0	HEIGHT	15.83"
SHEET SIZE	A3	WIDTH	22.09"
SHEET SCALE	1:7	DEPTH	22.09"
UNITS	INCH	WEIGHT	
TOLERANCE	±0.02"		38.14LBS
NONCONFIDENTIAL			





SPECIFICATIONS

Sample Rate	44.1 kHz, 48 kHz, 88.2 kHz, 96 kHz
Processing	SoundGrid DSP server Double Precision 32 Bit Float
Microphone / Line input	• Input Gain: adjustable from -3 dB to +60 dB in steps of 1dB, default +20 dB • Frequency response: (+18 dBu input) +/- 0.1 dB, 20 Hz to 20 kHz +/- 1.0 dB, 10 Hz to 40 kHz • Dynamic range: >110 dB (20 kHz BW, 0 dB Gain) • EIN -130 dBu (gain 60 dB, 0 ohms source, A-weighted) • THD+N -100 dB (997 Hz, +18dBu source, 0 dB Gain, 20kHz BW) • Input impedance: • XLR: 2k ohms / 7k ohms, selectable per input • TRS: 14.6k ohms • Input Sensitivity: • XLR: -33 dBu to +27 dBu, adjustable in 1 dB steps • TRS: -27 dBu to +33 dBu, adjustable in 1 dB steps • CMRR: 50 dB (20 Hz to 1 kHz, 0 dB gain) • Crosstalk: > 90 dB (20 Hz to 20 kHz, +27 dBu input, 0 dB gain) • 48V phantom power switchable per input • HMX - Harmonic Enhancer, switchable per input • Back panel signal presence and clip indicator, per channel
Line output	• Maximum output level: +18 dBu or + 24 dBu, switchable per output • Frequency Response: +/- 0.1 dB, 20 Hz to 20 kHz @ 48 kHz SR +0.1 / -1.0 dB, 10 Hz to 40 kHz @ 96 kHz SR • THD+N: -100 dB @ +24 dBu, -105 dB @ +18 dBu (997 Hz, 20 kHz BW) • Crosstalk: > 90 dB (20 Hz to 20 kHz) • Residual output noise: -87 dBu (A-Weighted) • Output impedance: 150 ohms
Phones output	• Adjustable output gain • Frequency Response: +/- 0.1 dB, 20 Hz to 20 kHz @ 48 kHz SR +0.1 / -1.0 dB, 10 Hz to 40 kHz @ 96 kHz SR • THD+N: -80 dB (3V @ 30 ohms load, 997 Hz, 20 kHz BW) • Output impedance: 20 ohms
AES3	• Input / Output impedance: 110 ohms • Input SR with auto conversion (SRC) • Output SR support: 44.1 kHz, 48 kHz, 88.2 kHz, 96 kHz
Faders	100 mm motorized faders
SoundGrid	1 Gbit Ethernet switch (4 ports)
Network	1 Gbit Ethernet
USB	USB2 (6 ports) USB3 (2 ports)



eMotion LV1 Classic

Technical Data Sheet

Display	Internal: HD 1920x1080 (Brightness control 100-1000 Nit) External: HDMI port supporting HD 1920x1080
Lamp	12V 2W max (pin 1, 2= NC, pin 3= GND, pin 4= +12V)
Power	110V/220V 3A/1.5A auto-switching power supply units
Operating Temperature	0 to 35 degrees Celsius (32 to 95 degrees Fahrenheit)