

CM1620

20-Channel Professional Digital Mixing Console



Description

This product is a multifunctional digital mixing console built on a Linux-based operating system. It features a 10.1-inch high-resolution touchscreen, operates at a 48 kHz sampling rate, and employs 192 kHz ADC/DAC converters. Compact and lightweight, it offers comprehensive functionality, intuitive operation, a user-friendly interface, and fast response. It is suitable for live bands, orchestras, conferences, studio recording, podcasting, and other professional applications.

Features

- 10.1-inch capacitive touchscreen with 1280x 800 resolution.
- Nine 100 mm motorized faders with touch-sensitive operation.
- 20 physical input sources in total: 16 × XLR microphone/line inputs with preamps (4 × combo jacks), 2 × USB audio interface channels or 1 × stereo Bluetooth (selectable), 1 × stereo USB media playback.
- 14 physical output paths: 8 × XLR balanced analog outputs, 2 × USB audio interface outputs, 1 × stereo TRS headphone monitor output, 1 × USB stereo recording output.
- 16 mono input channels + 3 stereo input channels; user-assignable physical inputs to input channels.
- 11 mix buses: 6 × mono AUX buses, 2 × FX buses, 2 × mono MTRX matrix outputs, 1 × stereo main L/R bus.
- Input channels support 48V phantom power switching, analog gain, digital gain, phase inversion, delay (0–1000 ms, total delay up to 2500 ms), pan/balance, channel level, customizable channel labeling, 4-band parametric EQ (PEQ / high-shelf / low-shelf / low-pass selectable), high-pass filter, noise gate, compressor, automatic gain control (AGC), and automatic mixing functions.
- Output channel processing: Delay (0 - 1000 ms), Pan/Balance, Channel labeling, 4-band parametric EQ (PEQ or shelf selectable), HPF / LPF, 31-band GEQ, Compressor, Feedback suppressor (AUX 1& AUX2).

- Two FX buses with eight effect types: Reverb, Echo, Chorus, Wah, Tremolo, Distortion, Pitch-shift, Flanger (combinable).
- Built-in feedback suppressor on AUX 1 & AUX 2 with 3 selectable detection speeds.
- Auto-gain available on all 16 input channels.
- Integrated 2x2 USB audio interface for stereo playback & recording.
- 4 DCA groups, 6 mute groups.
- Real-time spectrum analyzer (RTA) on every channel.
- Digital expansion slot supports four optional cards: 16x16 AES67, 16x16 Sound card (StandardConfiguration), HMLINK, 16 x 16 Dante
- 100 scenes and 100 FX presets, recallable & savable.
- Third-party control support via RS-232 and TCP/IP over Ethernet.
- LAN and external USB Wi-Fi dongle support; full web UI control.
- Bilingual UI (English/Chinese); app language auto-follows system.
- Two-level panel lock to prevent accidental operation.

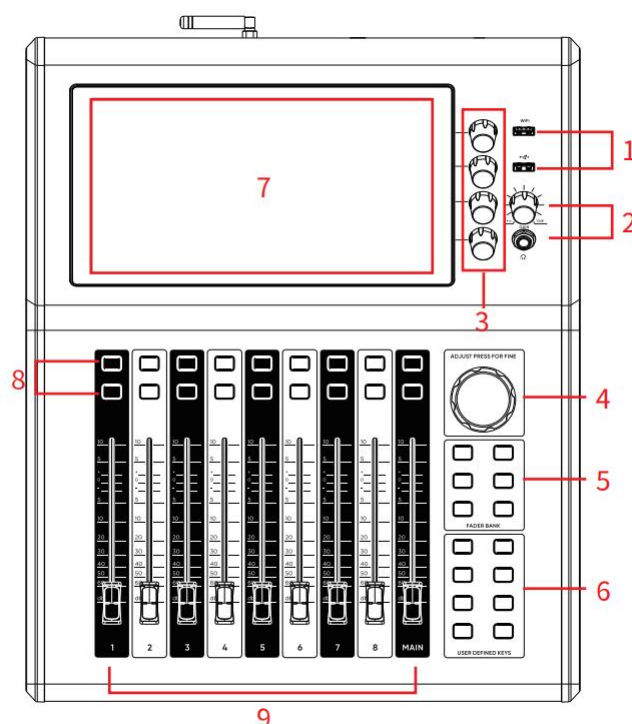
Specifications

Model		CM1620
Processing Channels	Input Processing Channels	16 Mono Input Channels + 3 Stereo Input Channels
	Output Processing Channels	16 Mono Mix Buses, 2FX Send Buses, 2 Mono Matrix Output Buses, 1 Stereo Main Output Bus
	Internal Effects	2 Mono FX Buses, 8 Effects (Reverb, Echo, Chorus, Wah, Tremolo, Distortion, Pitch Shift, and Flanger) for Flexible Application
	GEQ	31-band GEQ Modules Available on: 6 Mono AUX Buses, Main Output Bus
	Noise Gate	Threshold:-100 dBu to-20 dBu Attack Time: 3 ms to 100 ms Hold Time: 0 ms to 2000 ms Release Time: 2x,4x,6x, 8x, 16x, or 32x Attack Time (Coefficient-based Multiplier) Depth Range:-∞ dB to 0dB Operating Modes: Standard Noise Gate, Sidechain Ducking
	Compressor / Limiter	Threshold:-54 dBu to 0 dBu Attack Time: 3 ms to 100 ms Hold Time: 0 ms to 2000 ms Release Time: 2x, 4x, 6x,8x, 16x, or 32x Attack Time (Coefficient-based Multiplier) Ratio: 1.0:1:~∞ :1 Soft Knee: 0dB to 20 dB Gain:0dBto +18 dB Sidechain Compression Function
	Auto Gain (Automatic Leveling)	Threshold:-48 dBu to +26 dBu Attack Time: 5 ms to 500 ms Release Time: 5 ms to 500 ms Ratio: 1.0to 6.0 Target Threshold: -25 dBu to 0 dBu
	Equalization	Input Channels: 4-band , Output Busses: 4-band,

		Frequency Range: 20 Hz - 20 kHz Q Range: 0.404 to 18.031, Filter Types per Band: Parametric, High-Shelf, Low-Shelf, Low-Pass Filter (LPF) Gain:-18.0dB to +18.0dB
	Filters	High-Pass Filter (HPF): 20 Hz to 600 Hz Low-Pass Filter (LPF): 100 Hz to 20 kHz
	Delay	0 ms to 1000 ms
	Phase	Normal / Invert
	RTA	EQ/GEQ RTA Display: Real-time31-band Frequency Spectrum Analyzer
	Scene Files	Capacity: 100 Scenes
	Effect Library Files	Up to 100 Groups Storable
	Signal Processing	Processing Architecture: 40-bit Floating-point, Sample Rate: 48 kHz
	A/D Conversion	Resolution: 24-bit, Sample Rate: 192 kHz, Dynamic Range: 115 dB
	D/A conversion	Resolution: 24-bit, Sample Rate: 192 kHz, Dynamic Range: 123 dB
Connectors	Mic/Line Inputs XLR Interface	16 × XLR Analog Inputs with Preamps (includes 4 Combo XLR/TRS Jacks) Connection: Balanced
	Outputs	8 × XLR Balanced Outputs
	Headphone Output	1 × Stereo TRS jack
	USB Audio Interface	Rear Panel USB Port, 2-in/2-out, Sample Rate: 48 kHz Front Panel: 2 × USB-A ports, Functions: Connect USB drives for stereo playback/recording (sup-ports MP3, WAV, FLAC); Firmware Updates; Import/Export Scene & FX Libraries; Connect External USB WiFi Module.
	Additional USB	RJ-45 Ethernet Port for Wired Network Control
Input Specifications (IN1-16)	LAN	
	Impedance	Balanced: 10 kΩ, Unbalanced: 5 kΩ
	Frequency Response	20Hz-20KHz (+/-0.5dB)
	Max Input Level	+22dBu
	Phantom Power	+48V (IN1 to IN16)
	Gain Range	Analog Gain: 0dB to +63 dB Digital Gain:-24 dB to +24dB
	S/N Ratio	-113 dB (gain=0 dB,A-weighted)
Output Specifications (OUT1-8)	Dynamic Range	-114 dB (gain=0 dB,A-weighted)
	THD+N	0.005% (gain=0 dBu and out=0 dB gain,un-weighted)
	Frequency Response	20Hz-20kHz(+/-0.5dB)
	Max. Output Level	+22dBu
	Output Impedance	<100Ω
Monitor / Headphone Specifcatons	Crosstalk	-100dB@1kHz
	Noise Floor	-86 dBu (gain=0 dB)
	Output Imepdance	< 50Ω
	Max. Output Level	+20dBu
Digital I / O	Noise Floor	-73dBu (Gain=0dB)
	Digital I / O	Support Bluetooth and 2×2 USB Sound Card

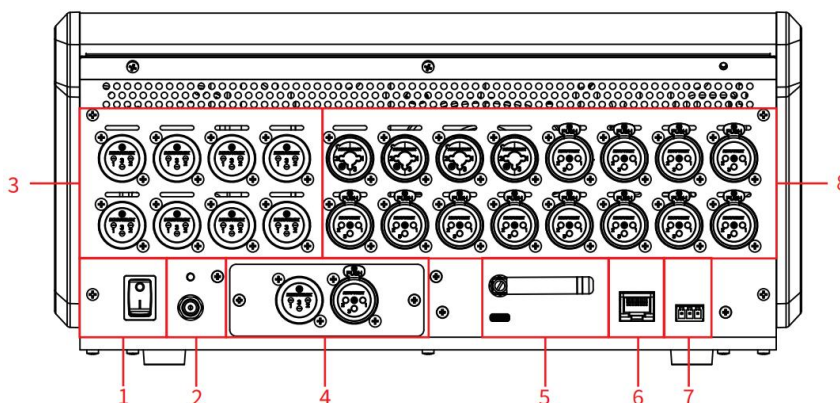
General Specifications	Expansion	USB Playback/Recording: Formats: MP3, WAV, FLAC (playback); WAV (recording), USB Standard: 3.0
	Channel Separation	16×16 Sound Card(Standard Configuration) /16×16 AES67/ HMLINK/16×16 Dante Card
	Display	-111dB
	Faders	10.1" Touchscreen (1280 × 800 px)
	System	9 × 100mm Motorized Touch-sensitive Faders
Hardware	Network	Linux-Based
	Power Supply	Wired Network Port, External WIFI Module; Supports Software Linkage Control
	Power Consumption	External adapter, Input: AC 100-240V 50/60 Hz, Output: DC 24V, 2.5A
	Operating Temperature	50W
	Dimensions (W×D×H)	5°C~40°C
	Weight	Unit: 424.27 × 354 × 159.90 mm Packaged: 590 × 455 × 240 mm
	Accessories	Net: 5.4 kg, Gross: 8.4 kg
		WiFi Dongle Bluetooth Antenna Power Adapter

Front / Rear Panel



1. Connect the WiFi module to provide wireless network connection; USB: Connect a USB flash drive formultimedia recording/playback, scene import/export, and system update.
2. Headphone: Connect headphones and adjust headphone volume.
3. 4 Parameter adjustment knobs: Used for quickly adjusting function parameters.
4. Editing wheel: Adjust the selected parameter.
5. Layer selection key: Includes six layer options: "IN1-8", "IN9-16", "ST/FX", "OUT", "DEF1", and "DEF2".

6. Custom buttons: Includes eight custom button options: "1" to "8"; the functions of custom buttons can be set through the system settings page.
7. Display: A 10.1-inch high-definition touch screen.
8. Channel function keys:
 - 1) SOLO: Channel monitoring key; tap to send the current channel signal to the monitoring bus, and tap again to exit the monitoring mode;
 - 2) MUTE: Channel mute key; tap to mute the current channel, and tap again to exit mute.
9. Channel fader: The fader controls the channel volume on the current layer page.



1. Power Switch.
2. Power Input Port: 24V power interface; only the factory-supplied power adapter must be used.
3. Output: all balanced XLR outputs.
4. Digital Expansion Card Interface: For 16×16 sound cards; can be selected and configured based on on-site requirements.
5. Bluetooth: Bluetooth antenna/2×2 Type-C interface for USB sound card.
6. LAN: Connects to a local area network (LAN) router, used for software remote control and integration with central control systems via the TCP/IP protocol.
7. RS232: Sends and receives serial control signals via the standard serial port; the default baud rate is 57600.
8. Input: All are balanced input ports (16 XLR ports), including 4 multifunctional COMB XLR ports (compatible with both XLR cables and 1/4" TRS cables for connecting audio signal sources).