

## CM24

### 24-Channel Digital Mixing Console



#### Description

This professional-grade 24-channel digital mixing console features an innovative design and powerful DSP capabilities, offering 24 digital gain preamp channels with low latency and noise. It provides a swift mixing interface, a user-friendly 10.1-inch touch screen, 17 motorized faders, 2 built-in effects processors, 100 scene memories, PEQ scene storage, USB playback and recording, all powered by a high-performance ARM processor with a Linux system for reliable and secure operation.

#### Features

- 10.1" capacitive touch screen 1280×800 resolution.
- 17 100mm electric faders.
- Can switch between Chinese and English interfaces at any time without reboot.
- With built-in USB recording and playback functions.
- Support playback of APE, FLAC, MP3, WAV lossless audio formats.
- Can recognize Chinese song names with the USB player.
- With built-in 16-channel independent feedback suppressors.
- With 8 DCAs.
- Support iPad touch screen full-featured control, and real-time data synchronization.
- Support 8 terminals to control simultaneously.
- With built-in 2 effect modules.
- Can upgrade the ARM firmware and DSP firmware through the network or USB resistance disk.
- With 4-band parametric EQ, noise gate, feedback suppressor, high and low pass, compressor, and inverter for each input channel.

- With parametric EQ, high and low pass, compressor, inverter, and 1s delayer for each output channel.
- With output channels: L/R, 10 BUS, HeadPhone(L/R).
- Can select pre-fader or post-fader (PRE/POST) for 10BUS mix bus.
- Support 100 groups of scene preset function, and can export and import USB storage, convenient for data backup.
- Support 32 PEQ modes storage.
- With built-in signal generator: sine wave, pink noise, white noise.
- With channel parameter copy function, the same channel can quickly copy data.
- Support wiring method: balanced input and output XLR.
- With 8 fader groups, 8 user-defined buttons, and 4 quick mute buttons.
- With panel lock button (to prevent misuse).
- Support customized channel name.

## Specifications

Model	CM24
Analog Input	24CH (MIC/Line)
Analog Output	L/R+10BUS+REC+Headphone(L/R)
Noise Floor	-90dBu unweighted, AES17 (20Khz)
THD+N	0.005% @4dBu 1Khz
Distortion	0.01% @4dBu 20~20Khz
SNR	108dB unweighted
Dynamic Range	108dB unweighted
Maximum Input Level	Balanced 20dBu
Maximum Output Level	Balanced 20dBu
Frequency Response	20Hz-20KHz $\pm$ 0.5dB
Screen Size	10.1"
Resolution	1280×800
Touch Control	Capacitive
Main Control CPU	Samsung 4418 quad-core Cortex™-A9
Boot Speed	36 seconds
Operating System	Linux
DSP	ADSP-21489 400Mhz
USB	Recording and playback (APE, FLAC, MP3, WAV playback formats)
DCA	Support
Chinese and English Interface	Support
Electric Faders	17
iPad Control	Support
Effect	2 effect buses (6 preset effect parameters, 24 users storage)
Feedback Suppressor	16, independent
Ethernet	Support
RS-232 Protocol	Support
USB Mouse	Support wired USB mouse
Power Supply	AC 100V-240V; 47~63Hz 100W
Dimensions (W*D*H)	610×650×230mm
Net Weight	22.1kg
Package Weight & Dimensions	39.5kg (Flight case packaging) 800×710×350mm 26.5kg (Carton packaging) 758×735×350mm

## Front Panel



The physical keys, faders and digital encoders on the front panel of the mixing console can respond in real time.

- **USB:** Can connect a USB flash disk or a mouse.
- **L/R METER:** Main output L/R real-time level.
- **HEADPHONE:** Headphone output jack.
- **MONITOR VOLUME:** Rotate to adjust the headphone monitoring volume; press to set it mute or unmute.
- **GAIN:** Valid after selecting the input channel; adjust the analog gain; rotate for coarse adjustment, step by 1dB; press and rotate for fine adjustment, step by 0.1dB.
- **48V:** Valid after selecting the input channel; turn on or off the phantom power. Light on for open, off for close.
- **HPF/LPF:** Valid after selecting the input or bus channel; rotate to adjust the frequency of the high-pass or low-pass filter; press to toggle the high-pass or low-pass filter.
- **-6/-24/-48:** Valid after selecting the input or bus channel; adjust the slope of the high-pass or low-pass filter.
- **PEQ FREQ/Band:** Valid after selecting the input or bus channel; rotate to adjust the frequency of the current band of parametric equalization; press to switch the parametric equalization band.
- **PEQ GAIN/Band:** Valid after selecting the input or bus channel; rotate to adjust the gain of the current band of parametric equalization; press to switch the parametric equalization band.
- **PEQ Q:** Valid after selecting the input or bus channel; rotate to adjust the bandwidth of the current band of parametric equalization.
- **PEQ Bypass:** Valid after selecting the input or bus channel; set the equalizer bypass or not. Light on for bypass, off for not bypass.
- **GATE:** Valid after selecting the input channel; rotate to adjust the noise gate parameters; press to toggle the threshold / attack time / release time.
- **LIMITER:** Valid after selecting the input / bus / headphone / recording channel; rotate to adjust the limiter parameters; press to toggle the threshold / slope / attack time / release time.
- **DELAY:** Valid after selecting the bus channel; rotate to adjust the delay parameters.
- **GATE/ LIMIT Bypass:** Valid after selecting the input / bus / headphone / recording channel; set the equalizer / limiter bypass or not. Light on for bypass, off for not bypass.
- **EFX:** Rotate to adjust the send amount of the input channel to the effect channel; press to switch the effect channel.
- **BUS:** Rotate to adjust the send amount of the input channel to the bus channel; press to switch the bus channel.
- **PAN:** Valid after selecting the input channel; rotate to adjust the pan.

- EDIT DATA WHEEL: Adjust the parameters currently selected on the touch screen.
- HOME: Switch the fader layer to IN1-16, and switch the touch screen to the input channel preview page.
- SCENE: Switch the touch screen to the scene page.
- EFFECT: Switch the touch screen to the effect page.
- COPY: Switch the touch screen to the copy page.
- METER: Switch the touch screen to the level meter page.
- LOCK: Lock the panel and touch screen operations.
- REC/PLAY: Switch the touch screen to the Rec/Play page.
- SETUP: Switch the touch screen to the setup page.
- USER DEFINE KEY A/B/C/D/E/F/G/H: User-defined keys, which can be configured to mute / recall scene / user fader layer. The default button A is the system mute, and other buttons are not configured.
- IN1~16: Fixed fader layer. If selected, the fader 1~16 means the input channel 1~16.
- IN17~32: Fixed fader layer. If selected, the fader 1~16 means the input channel 17~32.
- BUS/EFF: Fixed fader layer. If selected, the fader 1~10 means the bus channel 1~10, and the fader 11~12 means the effect channel 1~2.
- DCA1~8: Fixed fader layer. If selected, the fader 1~8 means the DCA channel 1~8.
- SEL: Select the channel.
- MUTE: Mute or unmute the channel.
- SOLO: Turn on or off the solo for the current channel.

## Rear Panel

