CM16

Digital Mixing Console

Description

CM16 Digital Mixing Console has powerful DSP processing capabilities, including advanced algorithms such as all-pass filter and dynamic equalization DEQ. It adopts the ARM Processor to drive the touch screen display and interface and the Linux System for stable and efficient operation. Electric faders are standard on digital mixing consoles, providing instant control of all channels and main outputs in a compact space: 1 LR main channel fader, 12 channel faders, and 2 fader layers for easy and fast switching.

Features

- 7" resistive touch screen 1024×600 resolution.
- 13 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 2 DCAs.
- Support iPad touch screen full-featured control, and real-time data synchronization.
- With optional WIFI hotspot.
- 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 8-band parametric EQ, high and low pass, compressor, and inverter for each output channel.
- With output channels: L/R, 6 BUS, 2 AUX, HeadPhone(L/R).
- Can select pre-fader or post-fader (PRE/POST) for 6 BUS and 2 AUX mix bus.
- Support 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, 1 system mute button, and 3 quick mute buttons.
- With panel lock button (to prevent misuse).
- Support customized channel name.

Specifications

Model	CM16
Screen Size	7"
Resolution	1024×600
Touch Control	Resistive
Resolution	1024×600
Main Control CPU	Samsung 4418 quad-core Cortex™-A9
Boot Speed	22 seconds
Operating System	Linux
DSP	ADSP-21489 400Mhz
Analog Input	16CH (14MIC + 2Line)
Digital Input	S/P DIF, optical fiber
Digital Output	AES EBU
USB Playback	APE, FLAC, MP3, WAV playback formats.
USB Recording	Support recording
Analog Output	L/R+6BUS+2AUX+Headphone(L/R)
Output Noise Floor	-90dBu unweighted (AP 515 test AES17-20Khz)
Microphone Preamplifier Noise Floor	30dBu mic preamp gain, -86.8dBu unweighted (AP test AES17-20Khz); 40dBu mic preamp gain, -80dBu unweighted (AP test AES17-20Khz)
Distortion	0.005% @4dBu 20~20Khz
SNR	-108dB unweighted
Dynamic Range	108dB
Frequency Response	20Hz－20KHz ±0.3dB
Maximum Input & Output Level	18dBu (6.2Vrms) balance
DCA	Support
Chinese and English Interface	Support
Electric Faders	13
iPad Control	Support
Effect	2 effects
Feedback Suppressor	16-channel feedback suppressors
Output Delay	Output delay 1 second
Ethernet	100M
RS-232 Protocol	Support RS232 protocol
WIFI	150M (optional)
USB Mouse	Support
Dimensions (W*D*H)	535×485×205mm
Power Supply	AC 100V-240V; 50/60Hz 55W
Net Weight	10.7kg
Gross Weight	14.9kg
Package Dimensions	635*580*335

The physical keys, faders and digital encoders on the front panel of the digital mixing console can respond in real time. The whole panel is divided into 6 control areas, namely, the common DSP parameter control area at the upper left, the touch screen and page switching control area in the upper middle, the monitoring control area at the upper right, the channel quick control area at the lower left, the mute group control area and the fader layer control area at the lower right.

(1) The commonly used DSP parameter control area at the upper left

Gain knob: Adjust the analog gain; rotate for coarse adjustment, step by 1dB; press and rotate for fine adjustment, step by 0.1dB.

Gate/Bypass knob: Rotate to adjust the noise gate threshold; press to toggle bypass or not.

Attack/Release knob: Adjust the noise gate attack time or release time. Press to toggle the attack time or release time.

48V button: Turn on or off the phantom power for the currently selected input channel.

HPF/LPF knob: Rotate to adjust the frequency of the high-pass or low-pass filter; press to toggle the high-pass or low-pass filter.

Bess/But/Link knob: Adjust the type of the high-pass or low-pass filter.

-6/-24/-48 knob: Adjust the slope of the high-pass or low-pass filter.

Bypass button: The first Bypass button on the left switches the high-pass or low-pass filter bypass or not.

PEQ FREQ/Band knob: Rotate to adjust the frequency of a certain parametric equalization; press to switch the parametric equalization band.

PEQ GAIN/Band knob: Rotate to adjust the gain of a certain parametric equalization; press to switch the parametric equalization band.

Q knob: Adjust a certain PEQ bandwidth.

Bypass button: The second Bypass button on the left switches a certain parametric equalization bypass or not.

LIMITER THRESH knob: Adjust the limiter threshold.

RATIO knob: Adjust the compressor slope.

ATTACK/RELEASE knob: Rotate to adjust compressor attack time or   release time; press to toggle the attack time or release time.

Bypass button: The third Bypass button on the left switches the compressor bypass or not.

EFX SEND knob: Rotate to adjust the send amount of the currently selected input channel to an effect channel; press to switch the effect channel.

BUS SEND knob: Rotate to adjust the send amount of the currently selected input channel to a certain bus channel; press to switch the channel.

PAN knob: Adjust the pan of the currently selected input channel.

SOLO button: Turn on or off the solo for the current channel.

(2) The touch screen and page switching control area in the upper middle

HOME button: Switch to the fader layer A.

SCENE button: Switch to the scene page.

PLAY/PAUSE button: Switch to the Rec/Play page. If in the Rec/Play page, this button can switch USB play/pause.

EFFECT button: Switch to the effect page.

METER button: Switch to the level meter page.

SETUP button: Switch to the setup page.

DATAWHEEL knob: Adjust the parameter selected on the touch screen.

(3) The monitoring control area at the upper right

MONITOR VOLUME knob: Rotate to adjust the Headphone L/R channel gain; press to set it mute.

(4) The channel quick control area at the lower left

SEL button: Select the channel.

MUTE button: Mute or unmute the channel.

(5) The mute group control at the lower right

MUTE GROUP: Set system mute and mute group 1-3 mute.

(6) The fader layer control area at the lower right

FADER LAYER: Click to switch to the layer A or B.

LOCK: Lock the panel and touch screen operations.