



**CS**  
series

**cadac** 

## THE DISCERNING CHOICE

The Cadac name has been synonymous with premium quality audio mixing consoles for over 50 years. From the earliest recording studio desks in the late 1960s to the analogue consoles that dominated the West End and Broadway theatres, right through to digital desks found on global concert tours, Cadac has always set the benchmark for audio quality. In fact, there are few brands that can match Cadac's unparalleled pedigree in the world of professional audio.

With an enviable heritage and unmatched reputation in audio, Cadac is currently focused on implementing the latest technology coupled with an advanced user experience to meet the ever-evolving demands of the audio professional for both creativity and uncompromised audio quality.

It is our mission to design intuitive, low latency mixing systems, delivering the highest possible level of audio performance to the professional live sound market.





## AUDIO FIRST

“Audio First” has been the design philosophy at the heart of Cadac’s console development since the company’s inception in 1968. Six decades on, Cadac’s sublime mic-pre is at the core of the new CM-J50 console.

Creating the mix using CM-J50’s industry leading audio is via an evolution of Cadac’s intuitive user interface, coupled with its unique logical workflow, all packaged in a familiar Cadac form factor. While the form is familiar, the internal design has been completely reengineered and refined, resulting in the next level of performance for the CM-J50.

The CM-J50 is complimented by a totally new range of feature rich stage racks – the CM-SR series. The radically new design consists of three fixed format stage racks, the CM-SR64, CM-SR40 and CM-SR24, with the focus on audio performance and flexibility. All three units have a comprehensive feature set with analogue and digital outputs plus a headphone amp with local control via a colour screen. All packaged in a compact, lightweight, but robust 7U or 4U aluminium chassis.

With a totally redesigned iPad App, a new PC based Offline Editor plus MADi and Dante network bridges, the CM Series from Cadac is the solution for applications that demand industry leading audio performance.

### **CM-J50 Digital Audio Console**

Cadac’s CM-J50 is designed to provide a truly intuitive user interface, with class leading audio performance and the industry’s lowest latency, in an extremely competitive package.

### **CM-SR Stage Racks**

Cadac’s SR series of stage racks provide comprehensive, feature rich remote I/O up to 2,000 meters from the console via Cadac’s proprietary, low latency MegaCOMMS network protocol.

### **CM-DT64 / MD64 Network Bridges**

Cadac’s audio network bridges enable third party audio protocols to be incorporated within the MegaCOMMS audio network.

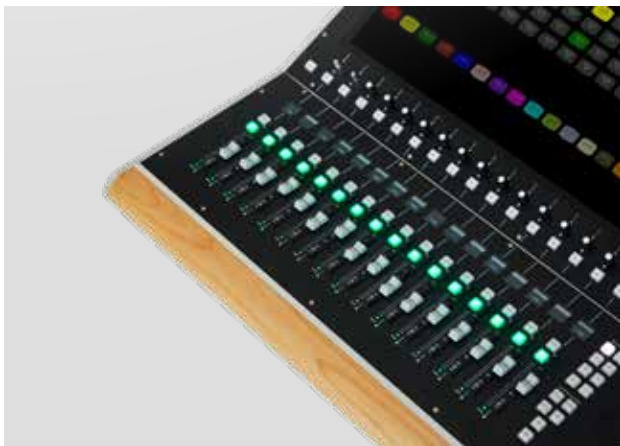
### **MegaCOMMS Protocol**

The entire CM Series system runs Cadac’s proprietary MegaCOMMS protocol on either redundant coaxial or fibre optic networks.

## HEAR THE DIFFERENCE

Cadac's digital consoles bear the hallmark of their analogue origins which can be traced back beyond the now legendary J-Type to those classic consoles of the golden age of recording studios. The CM-J50's audio performance still retains Cadac's traditional wide dynamic range and incredibly low noise floor through a combination of unique analogue emulating algorithms and the latest 24-bit / 96 kHz Delta Sigma AD/DA convertors.

Latency management is a central part to the unique Cadac sound, a major factor in digital audio performance and overlooked by a majority of other digital consoles. All digital consoles take time to process audio. When combining signals with different paths and processing, most digital consoles when summing the multiple signals will be partly out of phase. The CM-J50 has an extensive automatic latency management system which manages all internal routing and associated processing latency, which means that all audio samples are synchronised before summing, delivering absolute phase coherency at all outputs resulting in Cadac's unmatched sound.







## THE INTUITIVE TOUCH

The CM-J50, with its 96 input channels, 56 busses of which 48 are assignable, has been designed to provide a truly intuitive user interface, with class leading audio performance, in a very competitive package.

The most striking visual feature of the CM-J50 is the optically bonded 23.5" 16:9 high-definition touch screen. The unique combination of a large touch screen, displaying the intuitive GUI, plus traditional encoders results in an instinctive use of touch, turn and swipe. The faders will naturally follow the GUI on the screen. The result is the CM-J50 is far less menu dependent than alternative consoles, resulting in a faster workflow and just as importantly an easier, stress-free learning curve for the engineer.

Besides being incredibly intuitive to use, the CM-J50 has a number of features designed to aid the workflow and allow the engineer to creatively mix and not be hindered by overly complex menu structures. Cadac's unique Monitor Mode with Mix Focus, as well as the ability to create Custom Fader Layers are all designed with the sole purpose of increasing the speed of workflow for the engineer.

The CM-J50 also comes preconfigured with an integrated 64 x 64 Waves interface allowing access to the Waves' library of effects, complimenting the CM-J50's own 16 creative on-board stereo effects. Plus, it provides a simple solution for multitrack recording.

The combination of an exceptional user interface, legendary Cadac mic-pre's, state-of-the art DSP and FPGA processing technology, with astonishingly low latency, makes the CM-J50 an incredible proposition for those who do not want to compromise audio quality or creativity.

### Hardware Overview

- The latest version of Cadac's Intuitive, clear graphical user interface
- Proprietary DSP mix platform
- 96 kHz, 24-bit Delta-Sigma A/D and D/A converters
- 32/40-bit floating point SHARC processors
- 23.5" flush fit 16:9 hi-def LCD touch screen
- 6.5" LCD touch screen for system control
- 24 user definable buttons with colour OLED displays
- 20 segment stereo channel metering
- 20 touch sensitive 100mm motorised faders
- 16 fully programmable Mic inputs
- 8 analogue outputs
- 8 AES3 inputs and 8 AES3 outputs
- 2 MegaCOMMS ports on BNCs or via duplex optical LC ports
- Waves 64 x 64 interface
- Dual internal auto switching PSUs

### Feature Overview

- Sub 0.4 millisecond total system latency
- 96 input channels
- 56 busses, 48 are assignable as Groups, Auxes or Matrix
- Unique Monitor Mode
- Custom Fader Layers
- 16 VCA groups including 'VCA unfold' navigation
- 16 assignable buttons with OLED displays
- 16 stereo (or 32 mono) on-board effects
- 31 band EQ on outputs plus 4 band fully parametric EQ
- One Dynamic EQ on each input and output
- Compressor / limiter plus gate with side chain filter on all inputs
- Compressor / limiter with side chain filter on all outputs
- Input and output delays
- Snapshot automation system with Cue Ripple and Cue Preview
- Dugan Automixer post fade insert for Waves
- PC offline editor
- iPad remote control



## FEATURE RICH

The compact CM-SR40, CM-SR24 and the CM-SR64 are the first in a series of Cadac's CM stage racks, featuring what is considered by many audio professionals the industry's finest sounding mic pre.

There are two 4U units, the CM-SR40 with 32 analogue inputs and 8 analogue outputs, and the CM-SR24 with 16 analogue inputs and 24 analogue outputs. The 7U CM-SR64 is configured with 56 analogue inputs and 32 analogue outputs. All three have 8 AES3 inputs and 8 AES3 outputs on a total of 8 XLRs.

They all feature a 2.4" colour LCD, which displays the comprehensive menu structure that allows local adjustment of the incoming levels, mic gain and phantom power settings. The integrated headphone amp adds the useful, and time saving, ability to monitor audio directly at the stage rack.

All the units feature dual MegaCOMMS ports - on BNC or LC optical ports - for redundant connection of up to 2 km from the console plus they also come preconfigured with dual redundant internal PSUs for mission critical applications.

## SIMPLE INTEGRATION

Cadac network bridges enables simple, fuss free MegaCOMMS integration with other popular protocols, including MADI via the CM-MD64 Network Bridge and Dante via the CM-DT64 Network Bridge.

Both the CM-DT64 and the CM-MD64 support up to 64 bi-directional connections to map between MegaCOMMS ports and the relevant third-party network.

### Hardware Overview

- 2.4" colour LCD for system control
- Rotary encoder allows simple menu navigation
- 16 to 56 balanced fully programmable mic inputs on XLR sockets
- 48 V LED indicators on analogue inputs
- MUTE LED indicators on analogue outputs
- 8 AES3 inputs (with SRC) and 8 outputs on 8 XLR sockets
- 96 kHz internal Word Clock
- Two pairs of MegaCOMMS ports on BNC connectors and on two duplex optical LC ports
- ¼" stereo headphone socket with attenuator
- Dual internal, redundant, auto switching PSUs

### Feature Overview

- Intuitive menu structure
- Control of the analogue port: GAIN, 48 V, PAD, MUTE and MONITOR
- Control of the AES ports: DIRECTION, CLOCK, RATE, CHANNEL and MONITOR
- Word Clock modes: lead or follow
- Word Clock options of 44.1, 48 or 96 kHz
- Snake mode
- Optical connections allow stage rack location up to 2000 metres from control surface
- All audio connectivity and controls are found on the front panel with only power connection on the rear
- Compact, lightweight aluminium construction

### Hardware Overview

- 2 pairs of MegaCOMMS ports on BNC connectors
- CM-DT64: Two Dante Ethernet network ports A and B
- CM-MD64: Two MADI network ports A and B on BNC or optical
- Configuration switch to set Word Clock sample rates
- Word Clock IN / Word Clock OUT on BNC
- Word Clock status indicators
- 75 Ohm switch
- Synchronisation status indicators
- Dual internal PSU
- 1U rack space

### Feature Overview

- Up to 64 inputs and outputs
- 96 kHz or 48 kHz operation
- Word Clock modes - lead or follow
- Dual internal, redundant, auto switching PSUs
- BNC ports glow either red for receive (Rx) or blue for transmit (Tx)

## DON'T DELAY

Cadac's MegaCOMMS digital audio network has been designed to meet the requirements of the most challenging applications. MegaCOMMS allows total through-system propagation delay from inputs on stage to outputs, including all console processing and AD / DA conversions, in 37 samples (@ 96 kHz), or just under 400µs. MegaCOMMS is clocked at 96 kHz, however SRC (sample rate convertor) is provided for other clock speeds.

The protocol provides up to 128 bidirectional channels of 96 kHz / 24-bit audio, along with all control data and clock synchronisation. This is all carried on a pair of coaxial cables (send and return) with runs of up to 150 meters (492 feet) from the console, or up to 2 km (6,561 feet) with optical cables. Combining audio, control, and clock into one single network simplifies connectivity, shortens set-up time and reduces investment in cabling infrastructure.

The CM Series network bridges allow MADI, with the CM-MD64 bridge, and Dante, via the CM-DT64, protocol-based products to be seamlessly integrated in to the MegaCOMMS network, allowing third party networks and hardware to make use of those superlative Cadac Mic-pres.



## FREEDOM ONLINE

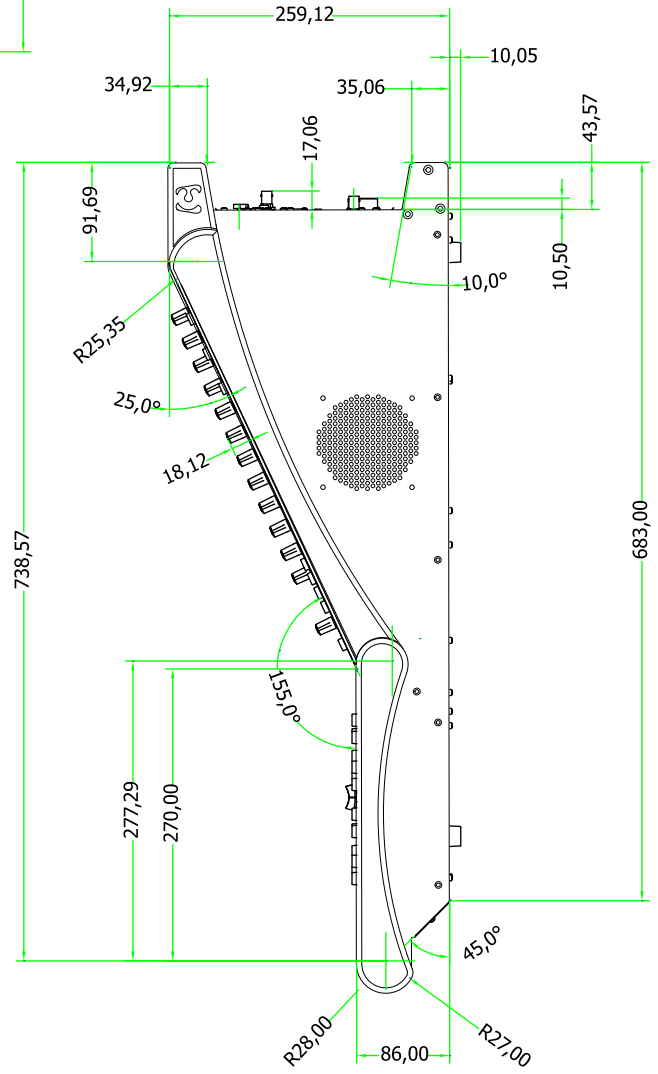
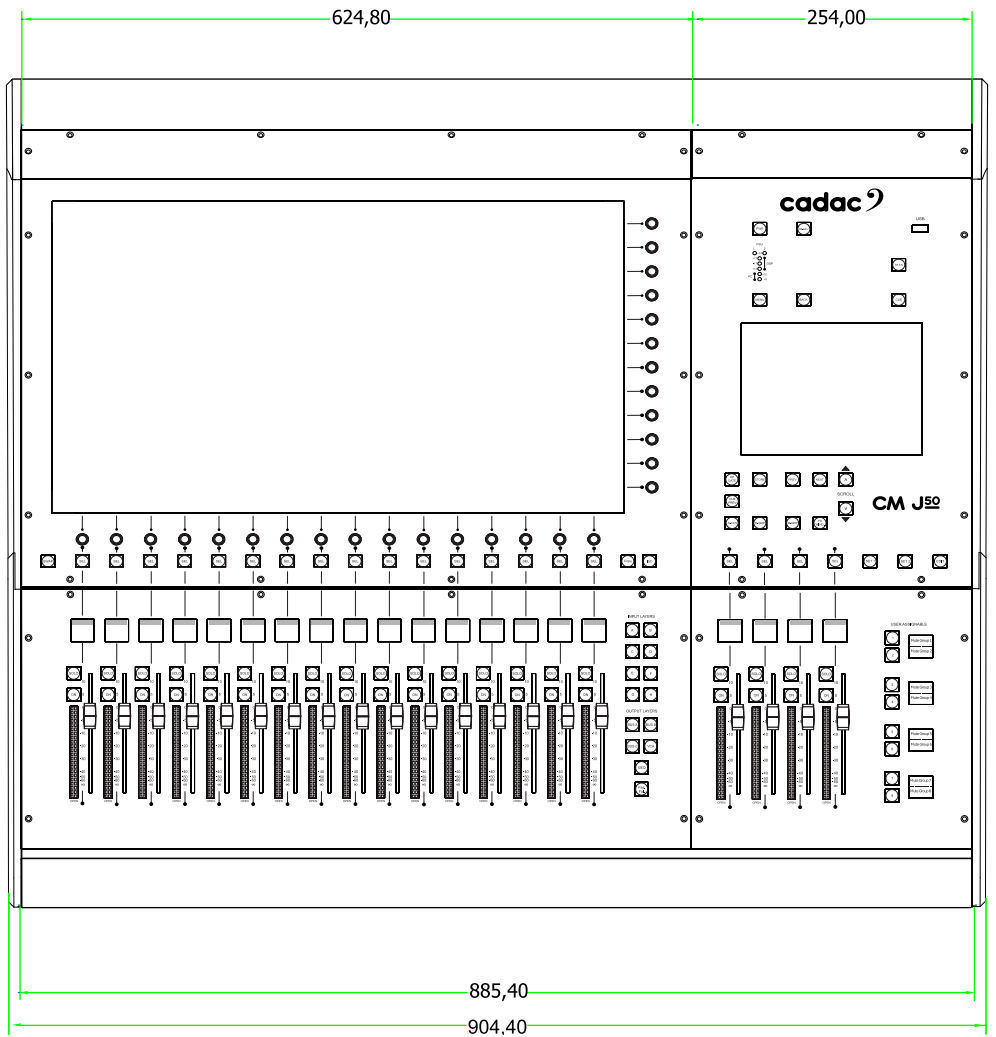
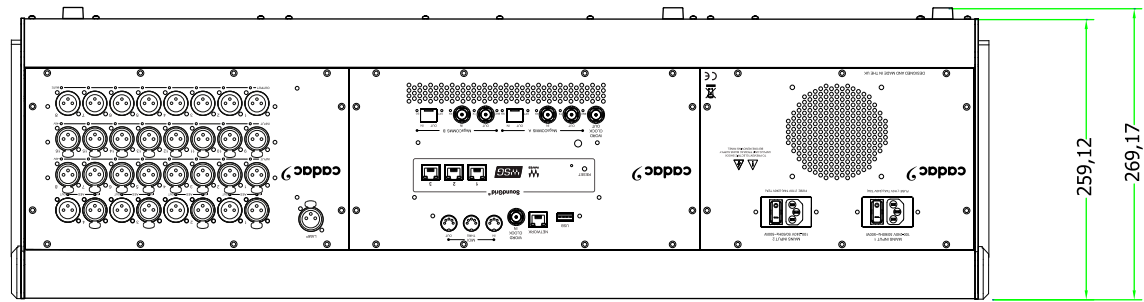


The freedom to fine tune the mix to the venue comes via Cadac's iPad App, the CM-Remote. The all-new CM-Remote provides the perfect solution for wirelessly controlling the key functions of the CM-J series via an iPad, or iPads, ensuring that venue perfect mix.

## FREEDOM OFFLINE



The freedom to create and edit show files away from the console and the stress of the show venue is provided by Cadac's CM-Editor. The CM-Editor is the console on a Windows PC. Create or edit show files, save to a USB stick, all in preparation for sound check.



Weight = 39.5kg



**series**  
**cadac** 

**TOURING | INSTALL | THEATRE | BROADCAST**

Uncompromising audio quality with industry leading low latency  
Flexible, intelligent I/O with world class mic amps and EQ  
Intuitive workflow within a compact footprint  
Accessible audio for the professional or volunteer engineer  
Simple third-party network integration

[cadac-sound.com](http://cadac-sound.com)

