

SERIX

Broadcast mixers



The Mandozzi's Serix On Air modular mixer

Serix digital audio mixer, is the ideal solution for self-operated broadcasting due to its comfortable control modules and touch screen surfaces. The sophisticated, easy to use technical features make it a precious tool for sound technicians and not only.



The Serix console modules are supplied either as individual units that can be built into the console furniture at any place desired by the customer or assembled into a metal frame with redundant power supply to obtain a table top mixer.

Create your own setup

Thanks to the adaptability of all the control modules and their customizable function, Serix suits all your needs.



Customizable buttons for busses and functions

Multifunctional OLED display

Rotary encoder with LED frame

Customizable buttons for SEL, PFL On/Off and Talk Back function

Active function LEDs indicator

Compression level dB meter

OVER and level dB meter

Motorized high quality fader slider

Buttons with protective frame for customizable function

There are various possibilities to assemble the mixer to your liking. Thanks to the wide range of control modules

Made for broadcasting

Serix is subdivided into the following units:

- The console modules and the touch screen
- The concentrator (I/O unit) with the audio and GPIO interfaces as well as the control processor, DSP and routing circuits.
- A possible stage box connected via redundant optical fibres.



Radio 1 - Zurich (Switzerland)



Swedish Radio - Stockholm (Sweden)

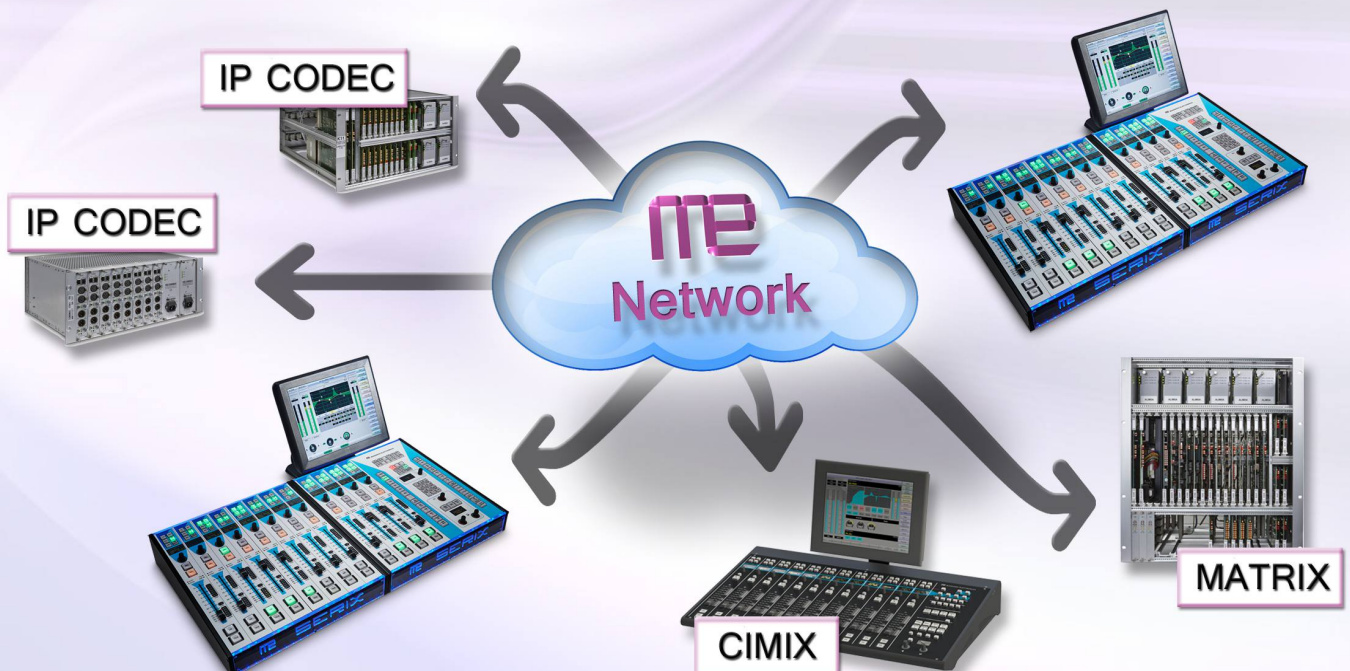
You can easily define the functions of any keys, knobs and OLED displays of the control modules.

The mixer surface can be split into several sections in order to realise multi-user surfaces or mixer satellites installed in separate rooms.

Serix into the Mandozzi's radio house concept

Complete radio house systems are realised by connecting the Serix mixers to a Mandozzi's *IDEA* central matrix or even third parties such as the *UMAC* Audio Over IP codecs or *CIMIX* compact mixer.

Setup example



Some technical data of the Serix mixers

Architecture

Serix is a powerful On Air mixer with integrated matrix and DSP circuitry. It can easily be connected to a central Mandozzi matrix. In this case, the Serix mixers remotely control the matrix in order to select the input and output connections, for intercom connections between the mixers, as well as to remotely control the microphone pre-amplifiers, the mute and the GPIO of the other mixers. Serix can also control, via the central matrix, a pool of hybrids and codecs, including *UMAC*, Mandozzi's Audio Over IP codec.

The Serix mixer is composed of:

- **The console**, with up to 12 modules of four motorized faders, the central module for managing the mixer, additional special control modules and a multi-function touch screen.
- **The concentrator**, built into a 19 inch cabinet. It contains the central processor with the switching and DSP circuits, and the audio and GPIO interfaces. It is connected with the console via a CAT5 Ethernet cable. Possibility to chain up to 4 concentrators.

Inputs/Outputs

- Up to 256 inputs and outputs
- Up to 64 GPIOs
- Great variety of interface types, such as:
 - AES/EBU with sample rate converters
 - Analogue and MIC preamplifier
 - 2 Mbps
 - Gigabit (with redundant CAT5 or optical fibers)
 - Audio Over IP (*UMAC* codecs)
 - AES67 (*DANTE*)
 - MADI
 - SDI

Additional interfaces

- Sync input (Wordclock or AES3)
- 2 Mains inputs (230 VAC) for redundancy

Fader layers

- Up to 6 fader layers can be configured (optional)

Equipment of every fader channel

- Filter bank with 6 freely configurable filters: Low pass, high pass, band pass (with adjustable frequency, Q and gain/attenuation).
- Compressor/limiter.
- Gain adjustment.
- Bal/Pan and Width adjustment.
- Phase inversion.
- Stereo-mono conversion, L/R, LL and RR inversion.
- Surround Sound Panning.
- Insert.
- The signal processing sequence (filter bank, dynamics, signal tapping point for dB meter, pre fader, fader, Bal/Pan, Width, Insert) can be selected for every channel.
- Along every fader there are LEDs to indicate the level (input or n-1) and the attenuation due to compressing.

Sum busses of the mixer

- Up to 48 N-1
- Up to 48 AUX
- Up to 16 GROUP
- Up to 8 MASTER
- Up to 2 REC
- Gain, stereo-mono conversion, compressor/limiter.
- Possibility to connect the sum as pre or post fader (with separate gain adjustment).
- The output level can be displayed on the screen.

12 monitor outputs

- 1 for the main loudspeakers
- 1 for the headphones
- 8 for up to four *MIXBOX* (remote intercom and monitoring control module with speaker and headphone)
- 1 studio unit
- 3 gains for possible surround-sound signal
- Up to 24 freely configurable selection keys for input or output signals.
- The monitoring output are equipped with: Gain, Bal/Pan, Width, stereo to mono conversion and phase inversion.

dB meters on the screen

- Selectable scale.
- Loudness (EBU R.128)
- 4 dB meters: Master, PFL, Monitoring, selectable signal (matrix input, Master, Aux, fader input, recording bus, PFL bus).
- 38 dB meter busses for level display on separate window.
- Along every fader there are LEDs that indicate the input or output level (operator selectable).
- Along every fader there are LEDs that indicate the gain reduction due to compressing.

Intercom

- 4 independent circuit for external monitor / intercom boxes (*MIXBOX*, *K-BOX*, or others).
- Automatic blocking at the mixers that are on air.
- GPIO to establish intercom connections to external mixers.
- Full integration into the Mandozzi radio house system.

Software

- Login with various access rights
- Saving and loading of configurations for faders, compressors, filters, and complete mixer
- Comfortable managing of the antenna outputs (switching, GPIO, etc.)
- The functions and the colours of the keys, the functions of the rotary knobs, and the texts on the displays can be configured very easily by the operator.
- Serix can be configured and remotely controlled from a PC via IP.
- Back up, log file, and help functions.

Surround Sound

- Serix generates 5.1 signals from a mono or stereo signal, with easily operated panning.
- An external mono signal or an external 5.1 signal can be mixed with the internally generated surround signal.



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