

Adapting to changing workflow practices

An introduction to Touchmix

Traditional audio monitoring in TV Broadcast has become increasingly complex for many content producers and bespoke systems often comprise multiple devices, which add cost and take up valuable real estate. It's difficult enough when needing to hear a combination of AES and line level analogue, then further complicated with the addition of domestic level analogue. Since the introduction of Embedded SDI, audio monitoring has also required a de-embedding process. This Application Note looks at less painful and less costly ways of metering.

Touchmix (AVM-T-MIX)



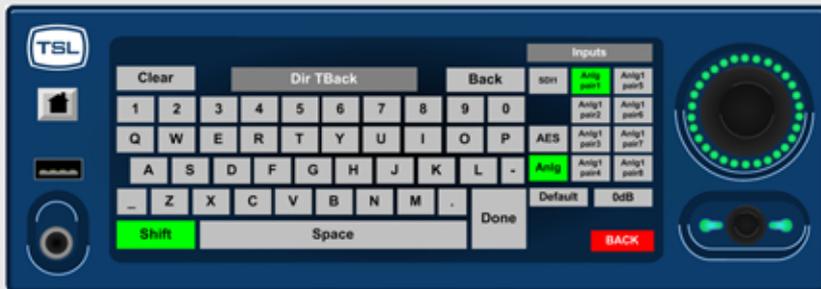
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Flexibility beyond traditional solutions

The Touchmix offers the user a flexible/configurable ability to de-embed and monitor any/all tracks which are embedded in SDI. It can also hear the outputs from professional audio kit such as Routers, Sound Consoles, Playout devices etc. alongside PCs, music players, phones and TV/Radio receiver boxes.

There is a comprehensive I/O and processing area, flexible configuration of the user interface and a definable memory save/recall facility with a number of memory stores and quick launch 'home' recall button.

An engineer can initially set up the Touchmix by defining the physical architecture and input port names, including level adjustment to accommodate domestic analogue from low gain semi-pro devices found increasingly often in professional facilities.



The onscreen QWERTY keyboard is used to enter channel 'aliases' which are displayed above the bargraphs and also to name the 18 user presets.

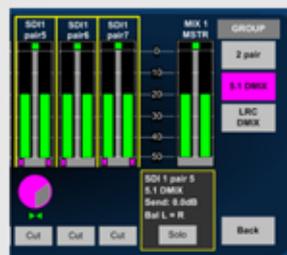
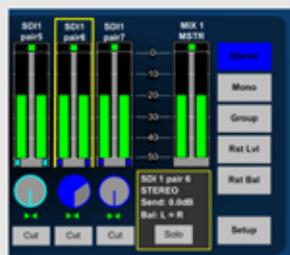
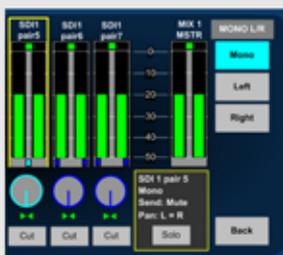
High functionality, simple control

There are 10 stereo bargraph meters to which any of the input ports can be assigned without restriction. This offers very comprehensive, ergonomic and accurate metering on a single compact display.

The user is offered level, pan and cut touchscreen controls for all 10 of the bargraphs, which are mixed together to provide a stereo monitoring mix. Furthermore a second monitor mix facility offers a second user the facility to set up an alternative mix which can be used for a wide variety of secondary activity such as creating cue audio feeds, cleanfeeds or simply as a useful tool have available for when the unexpected occurs.

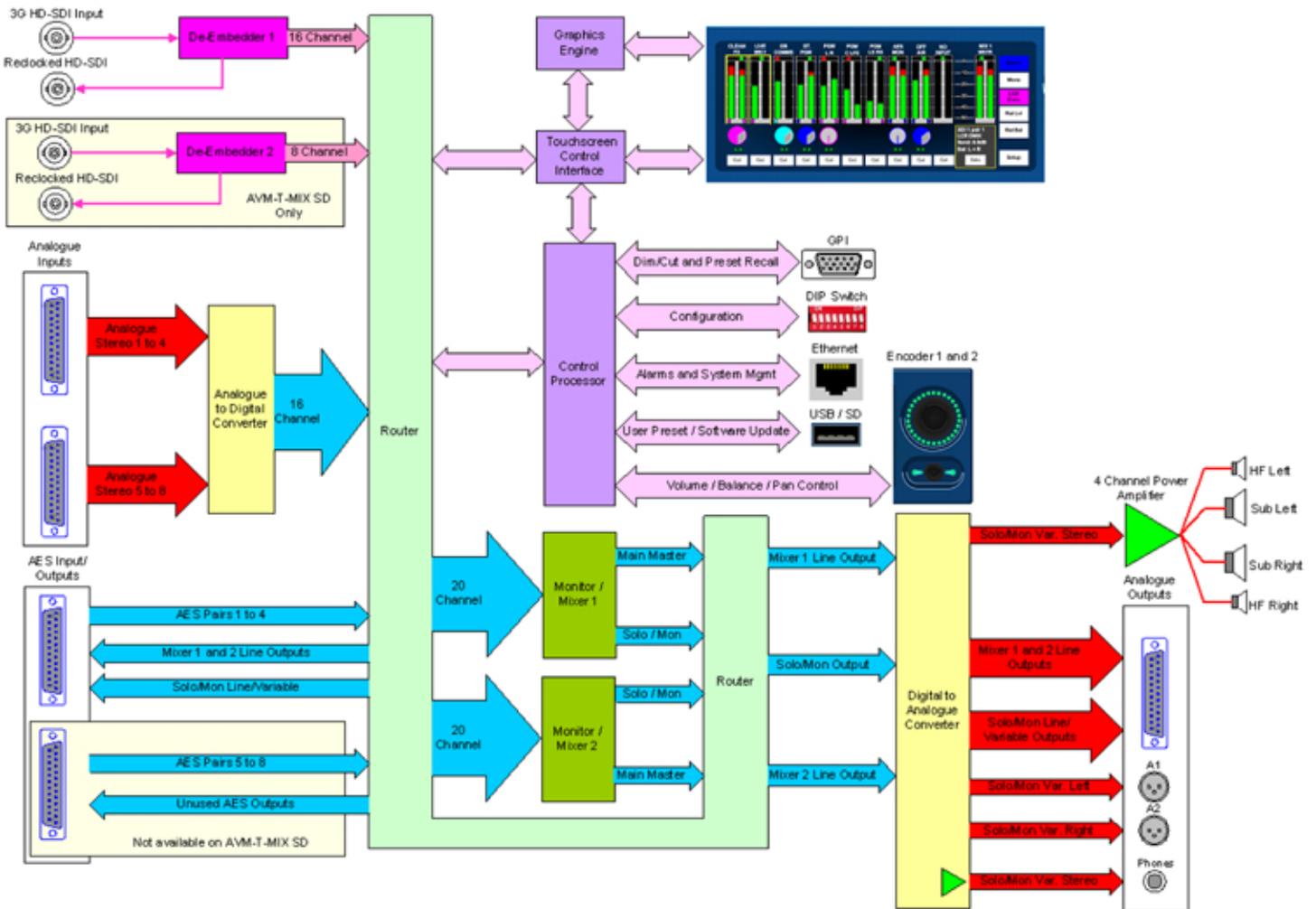
These mixes are extremely easy and quick to adjust using the intuitive touchscreen controls. The monitor mixes are 48 kHz 24 bit digital quality which stands proudly alongside most professional mixing consoles. The mixes can be routed to an internal headphone amp, internal loudspeakers or external output terminals.

Touchmix doesn't care whether the input signal is mono, stereo, 5.1 or any of a number of legacy 4 channel formats. With a single 'touch' of the channel format button, the input bargraphs are reconfigured to the appropriate selection with 'auto downmix' activated for any non mono/stereo signal groups.



Mono, Stereo and 5.1 Downmix channel selection.

This image shows the full range of input and output connections available to the Touchmix user.



A multitude of practical applications in one box: Save money, time and space

With such a comprehensive, flexible and powerful tool, the practical applications are wide ranging. With the Touchmix combining the functions of multiple devices such as de-embedder, mixers, monitors, routers whilst potentially reducing the burden on the Talkback System, the user saves money on hardware, infrastructure and also real estate.

Personal Audio Monitor Mixer

In the TV production process most staff will require the facility to hear the audio which matches a chosen vision feed, plus their communication panel output, auxiliary feeds from the sound console such as Pre-Hears, off air courtesy feeds and PC outputs etc.

With its comprehensive connectivity and ultimate configurability, the Touchmix can be tailored to suit all personnel, these users tend to choose the internal loudspeaker or headphones.

This example shows a configuration that might be used to monitor a multi-language transmission where three programme audio mixes comprising native language commentary as well as French and German versions, are monitored alongside two Telco channels plus Studio and Outside Broadcast talkback.



Edit Suites

The Touchmix can be configured to offer loudspeaker monitoring independently of the headphones. The Editor can listen to monitor outputs of the edit platform whilst the producer can de-embed and monitor incoming SDI feeds. If the Suite is used on-line during live production, the headphone user can add their Comms panel into the mix so that they can liaise with the truck or studio without disturbing the Editor.

Play-In areas

A Producer working alongside a play-in operator in a busy, fast turnaround area can choose to monitor and meter de-embedded SDI feeds, monitor and meter outputs from their play-in device, plus audition clips from a PC browser and mix in their Comms panel output.

Voice Booths

The Touchmix offers comprehensive user configurable monitoring of the embedded audio associated with a Voice Artists cue vision feed plus the ability to mix communication and audio auxiliary circuits.

The connectivity options and operational simplicity alongside the audio quality offer a superior monitoring solution for those requiring more than a simple commentary unit or where a commentary unit (or means to mix a number of audio types) is not available.

Audio Transmission Suites

Generally audio consoles offer a limited quantity of full monitor outputs - often reserved for the main Sound Supervisor or A1.

Using Touchmix, Sound Engineering Assistants or A2's can be fed alternative AFL and PFL signals which they can monitor and meter, direct outputs from play-in audio devices as well as mix in auxiliary feeds and Talkback Panel outputs.

As a Standby Mixer

In simple audio suites, or as a backup mixer in more complex suites, the Touchmix can be arranged as a 10 stereo channel programme quality mixer.

The clear bargraph meters match the level of accuracy on many large sound consoles, and the easily recalled memories make it simple and quick to reconfigure the input patching/fader allocation, pan selection and mixer balance. With the choice of the desktop 'Pilot' version of Touchmix, the Sound Supervisor or A1 has a compact, reliable and versatile backup system within easy reach should the unthinkable happen and the main console fail during live television.

Touchmix is available in both rackmount and desktop (Pilot) formats so whatever the application, you can choose the hardware version to suit your needs.



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