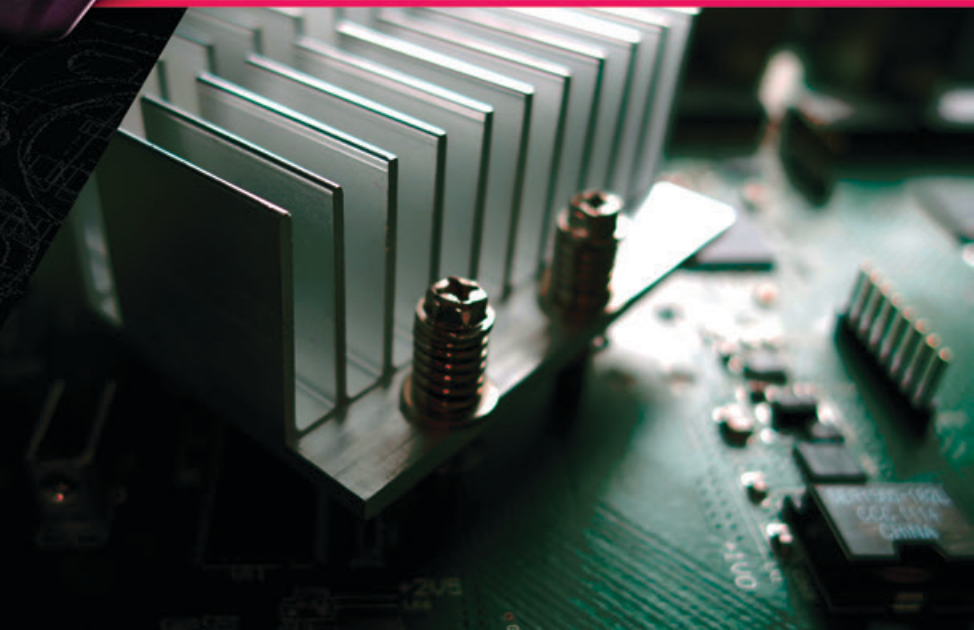# dLive

Design for Live

ALLEN&HEATH

Design for Live

There is something inherently thrilling about live sound. The immediacy of the direct interaction between the performers and the audience, the potential for anything to happen, the need to get it right first time – this is what makes live mixing so addictive. As the demands for more and more I/O and increasingly complex systems grow, there's a danger of concentrating on the technology rather than the performance. Our design goal for **dLive** was to create the ultimate mixing system, with plenty of processing and flexibility to handle the most demanding live scenarios, while at the same time giving the engineer intuitive tools to comfortably keep all that power at their fingertips, freeing them to focus on the live mixing experience.

XCVI Core

The power of dLive emanates from the XCVI Core – pioneered by the Allen & Heath R&D team using next generation FPGA technology, with 36 parallel virtual processing cores generating enough power for 160x64 channels of processing at 96kHz sampling rate. Six parallel mixing engines within the Core calculate over 10,000 cross points per sample, while the FPGA router has capacity for 3,000 x 3,000 audio paths. The massive power of XCVI (25 billion operations per second) allows dLive to deliver 128 full processing inputs and 16 stereo FX returns, a configurable 64 bus architecture, variable bit depth for **ultimate** precision and noise performance, a virtually infinite mix headroom thanks to a 96bit accumulator, and class leading latency at an ultra-low 0.58ms.

S7000
& DM64

DEEP Processing

Our DEEP processing architecture embeds class-leading compressors and processing emulations directly within dLive's input and mix channels. An array of bespoke algorithms including Graphic EQs and Compressor models can be inserted on the fly without burning FX slots and without the setup, latency and licence hassles associated with external plug-ins – they're right there, where you need them, whenever you need them. The compressor models capture the audio nuances and non-linear ballistics of industry classics, ranging from a Slow-Opto model, various RMS detection and soft knee circuits, through to super-fast peak and RMS based compression/limiting devices.

dLive Ecosystem

dLive is so much more than a mixer. It is a fully developed ecosystem with over 800 system inputs and 800 outputs. The MixRack houses the XCVI core and is the brain of any dLive system. This brain is supported by surfaces, apps, software, TCP/IP control and IP remotes, all of which provide different means of controlling the mixer. Up to five 128ch I/O ports for a range of audio networking cards including all major digital protocols, the DX32 modular I/O expanders, plus full compatibility with our ME personal mixing system all extend the reach of the system. With so many control and expansion possibilities, dLive's inherently flexible architecture enables it to conquer practically any mixing challenge.
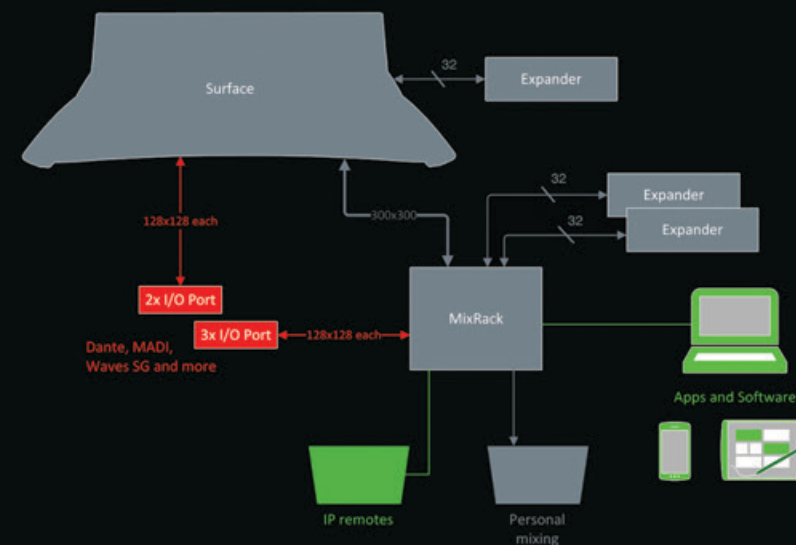
Harmony User Interface

Where many digital systems try to recreate the experience of using an analogue mixer, dLive is a true digital native, drawing on our familiarity with the ubiquitous smartphones and tablets that we all use without thinking. The single or twin 12" capacitive touchscreens on the dLive surfaces feel instantly familiar, responding to every pinch, swipe, drag and drop exactly how you'd expect them to. Bespoke 'widget' areas can also be set up on the screens to keep track of scenes, meters, FX and other custom controls. The screen is framed by a set of one knob / one function rotary controls, allowing the creativity and immediacy of tactile control over key processing functions, working in harmony with the visual feedback displayed on the screen. The rotary knobs have been prototyped 20+ times to achieve optimal grip and precision control, and feature RGB illumination, with colours mapped to functions for instant visual orientation.

Features

System

Distributed system with separate MixRack and Surface
DX32 modular expansion racks for flexible I/O
DEEP processing – powerful embedded plugins
Pro touring grade construction
Redundant hot swappable power supply common across the range
Redundant connections throughout
Up to 814 system inputs and 824 outputs
Up to 5 audio networking option cards including Dante, Waves SG, ACE, MADI
Compatible with ME personal mixing system

dLive Surfaces

Choice of 3 sizes (20, 28 or 36 faders)
Fully assignable layout – up to 216 fader strips
Harmony UI integrates screen and wrap-around controls
   Single or twin 12" capacitive touchscreen
   Gesture control – pinch, swipe, drag 'n drop
   Configurable widget areas for Scenes, meters, FX and more
   3 pages of 6 assignable rotaries per screen
26 assignable SoftKeys
Comprehensive multipoint metering

dLive MixRacks

Choice of 3 sizes (32, 48 or 64 mic inputs)
XCVI 160x64 FPGA core
   96kHz sample rate
   Variable bit-depth for ultimate precision and noise performance
   Virtually infinite mix headroom thanks to 96bit accumulator
   Class leading, ultra-low latency < 0.6ms
128 Input Channels with full processing
64 Mix Outputs with full processing
Configurable 64 bus architecture (group, FX, aux, matrix, mains)
LR, LCR and up to 5.1 mains mode
16 RackFX with dedicated stereo returns
New preamp design for extra transparency

Control

Networked wired or wireless control
Editor software for online or offline PC/Mac editing
dLive MixPad and OneMix apps
IP range of PoE remote controllers
TCP/IP protocol for third party integration
Extensive User Permissions and Profiles
Comprehensive Scene management with Cue List, multiple Scene Update, Crossfades, Recall Filters, Embedded Recalls, Auto Store, Recall Undo

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