iLive

Digital Mixing Console System for Live Sound

ALLEN&HEATH

The iLive Control Surface and iDR10 Stage Rack

iLive CONTROL SURFACE

iDR10
STAGE RACK

Welcome to Allen & Heath's iLive digital mixing system.
iLive has been designed from the ground up to revolutionise the way you work in all types of live sound situations. Featuring an extremely flexible architecture with distributed audio and control, this design, developed from over 35 years experience in professional audio, will satisfy live sound engineers working in live shows, theatre, houses of worship and in the sound contractor sector.

The new iLive affordable digital console range with large-scale system distribution and configuration possibilities now brings such an intuitive, analogue feel to digital mixing that you can walk right up – and feel comfortable mixing straight away.

The iLive System Concept

The iLive digital mixing system offers many advantages over traditional analogue systems. The flightcased console surface and stage Mix-Rack contain all the tools the engineer needs between the microphones and the PA system.

iLive puts the audio processing right where it is needed - on or near the stage. The DSP is in the Mix-Rack, keeping latency to a minimum and giving you the freedom to choose how you control the mix.

iLive provides comprehensive on-board signal and FX processing, so there is no need for expensive and heavy outboard equipment racks. This not only saves space, but reduces preparation time, and cuts back overheads too! Bulky and expensive multicores are a thing of the past, as cabling between the console and Mix-Rack is CAT5.

Full processing is available all the time. Each of the 64 input channels has a gate, parametric EQ, compressor, limiter/de-esser and delay, while all 32 mix outputs have a 1/3 octave graphic EQ, parametric EQ, compressor, limiter and delay.

Complete set-ups can be stored in the console and saved to a USB key, so adapting to different venues, applications, and artists has never been easier. All parameters can be saved, updated, and recalled, so engineers can carry their settings and libraries with them - saving precious time at the gig.

Distributed Audio - Distributed Control

iLive is a modular system, so a choice of analogue and digital input and output cards can be arranged to suit your application and hire inventory. The iDR10 Mix-Rack holds 10 of these cards while the surface has a built-in rack for a further four. The Mix-Rack sends audio to and from the surface and other devices using EtherSound, popular for its compatibility with standard network components, its 64 channel capability and very low latency. You can choose where you need your inputs, direct outs, mixes, and insert points. The mic head amps are remote controllable and can therefore be positioned anywhere within the audio network.

Ether ES Sound

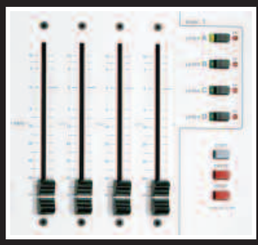
You have the freedom to control the system with a choice of iLive surfaces, computers connected via Ethernet for wired or wireless control, MIDI or using our PL Series hand-held controllers. More than just a mixer, iLive joins a family of compatible products proven by Allen & Heath to provide solutions in every area of modern audio and system integration. For fixed installations or live venue and events, iLive consoles and iDR Mix-Racks can be combined to form an expandable and flexible system.

System Components

Walk up to an iLive control surface and it will seem familiar! Four buttons per channel strip allow the engineer to select parameters, audition, mute, and create mixes. iLive's unique 'Processing-Strip' gives you instant access to all the analogue-style controls and indicators you would want to see for processing an input channel or output mix. Intuitive and informative LED status and meter displays let you know what's happening to the signal at every point in the signal path, keeping you in total control with nothing hidden or buried in menus. You are free to concentrate on where the action is – on stage!

Touch-Screen
If more detail is required, or the delay or library settings need to be accessed, the Touch-Screen interface provides full graphical display of each section of the 'Processing-Strip' with numerical values for each setting. Data can be entered with the rotary encoder or on-screen keypad. Onboard and USB key libraries are available so that favourite settings can be quickly stored and recalled. The Touch-Screen also provides easy access to the system setup and user preference screens.

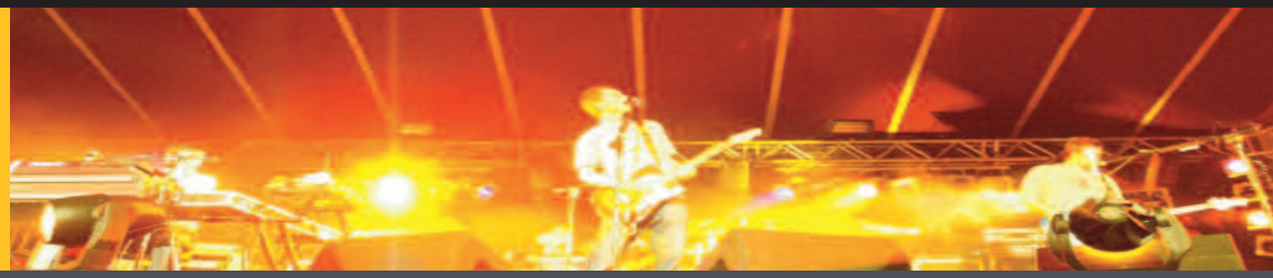
Fader Strips with Coloured LCD 'write-on' blocks
Each channel strip on the iLive surface has a back-lit LCD display which displays the basic information for the channel type, name, assignment status and pan functions. The channels, mix and DCA masters can be named individually and coloured to suit the user, and freely mapped across the banks in any combination you choose. Each of the three fader banks has four layers of motorised faders, giving you a logical control layout of up to 176 channels and masters in a compact footprint. Strips can be duplicated or 'frozen in layers' so important channels can always be visible for hands-on attention. All these settings can be added to the scene memories and recalled at will, ideal for different artists appearing on-stage in a festival situation, or acts/scenes in a theatre show.



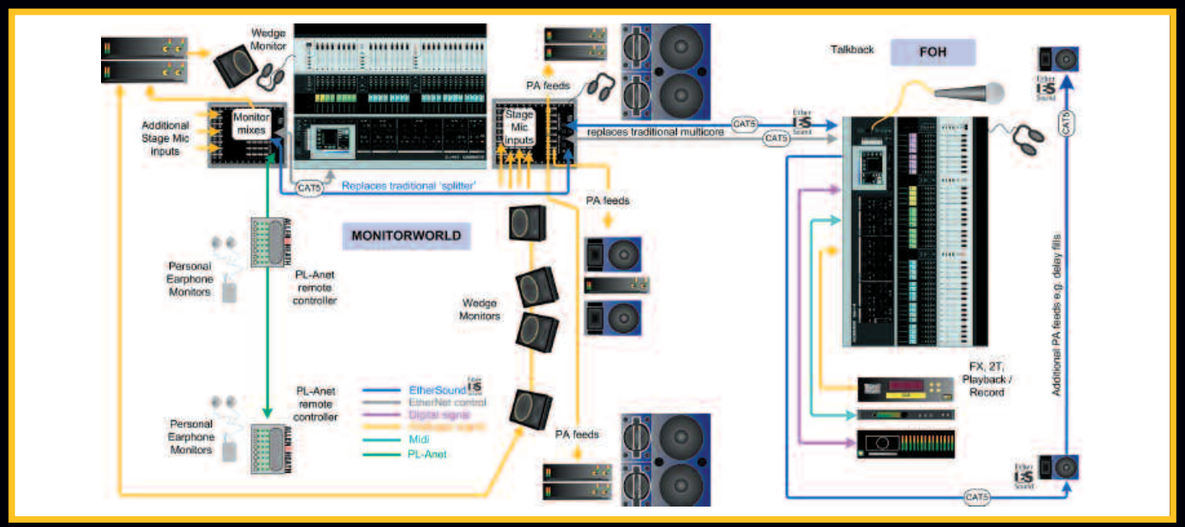
System Manager software
iLive System Manager will allow both online and offline setup, simulation, and control of the system over the EtherNet network giving multiple users the ability to control different parts of the system, to create mix configurations and surface maps before 'going live', and to allow for future feature updates. This flexibility gives iLive the ability to mould itself to the evolving requirements of live sound engineering.

Surface Controls
With all the hands-on control you would expect of an analogue console, iLive adds the many benefits of digital mixing. Copy, paste, and reset keys allow quick set up of channel and bus settings. Parameters can be saved and recalled from scene memories, with access buttons enabled for instant recall, or disabled to protect from accidental operation. The engineer stays in control with a comprehensive talkback and PFL/AFL monitoring system, as well as a protected Solo-in-Place function. As a monitor console, iLive can be configured with a dual engineer's PAFL monitor for independent wedge and in-ear checking. Even the LED and Touch-Screen brightness can be independently controlled to compensate for different ambient lighting conditions. iLive presents a control surface designed by live sound engineers for live sound engineers...

Applications



iLive offers a uniquely flexible output bus structure and control surface assignment which allows the system to be optimally configured for each live audio application. These settings can be stored as show memories and archived to USB key to be used again later.

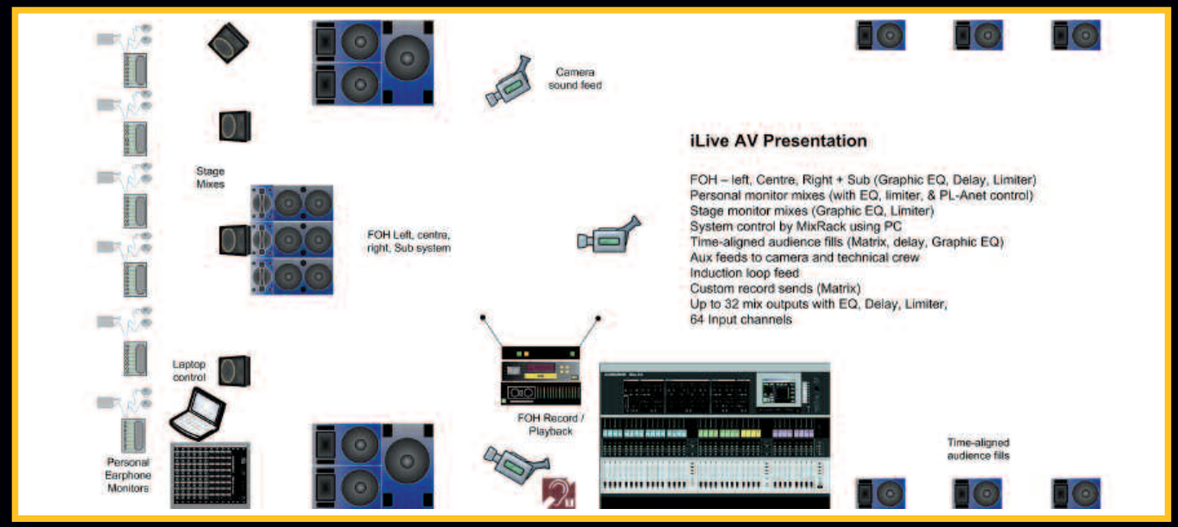


Example system - FOH / Monitor system with digital mic splitter:
One Mix-Rack loaded with all 64 mic inputs is located on stage and controlled by an iLive-144 surface at FOH. Outputs for the Left / Centre / Right / Sub / fills amplifiers can be located in the same rack, at the surface, or both! A second Mix-Rack provides its own DSP and surface for independent control of the monitor mix. It is loaded with just the output modules for up to 28 monitor mixes as it gets the same mic signals via EtherSound from the FOH rack - a digital mic splitter. The compact iLive-112 surface at the monitor position saves valuable space on stage and keeps trucking space to a miniumum.

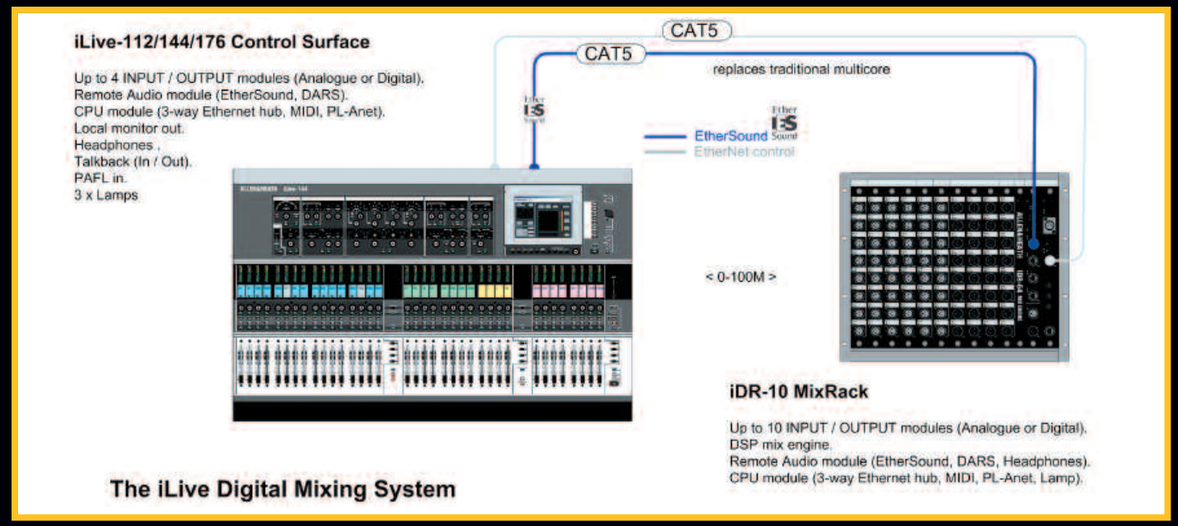
The majority of mic/line inputs and system outputs, analogue or digital, will be located at the iDR10 Mix-Rack, the 19" shockmounted & flightcased 'heart' of the system featuring the iDR-64 Mix Engine DSP. This is linked to the control surface via two Cat5 cables – one for system control using Ethernet, and one for the EtherSound digital audio network, providing a further 32 inputs and outputs located in the rear of the console for sources such as music players and sound effects, inserting favourite processors, outputs to speaker management devices, recording and more. The Mix-Rack could be placed next to the surface and fed from the stage using an existing copper multicore in a similar way to traditional FOH consoles, or you could benefit from lower cost, longer run CAT5 cable connection by keeping the Mix-Rack on stage next to the sources. This example shows the Allen & Heath PL-Anet connection being used on stage to daisy-chain remote controllers for personal monitor control by individual musicians. The FOH surface continues its EtherSound network to route signals to additional ES equipped devices for delay fills and other remote feeds.

This is just one example of many that emulate large scale 64 channel distributed live sound systems while being reassuringly easy to operate, taking up very little space and providing the benefit of reliable recall of saved settings show after show.

AV presentation: Left-Centre-Right+Sub main PA feeds, 4 stereo matrix sends for time-aligned audience fills, 6 foldback mixes with each performer able to dial up their own custom monitor mixes on PL-10 remote controllers, and 3 stereo custom recording feeds to cameras.



Basic iLive system: One CAT5 cable is used for control of the Mix-Rack via TCP/IP. The second cable replaces the traditional multicore for audio transport to and from the surface via EtherSound.



Processing

The iDR-64 DSP mix engine provides all the processing power for 64 input channels and 32 mix outputs. Not only does iLive present all the gain, EQ, assignment and level control you would normally find on a well equipped analogue console, but it brings on board the many outboard racks you would need if you were to insert full dynamics processing and delay across all 64 channels, patch in dynamics, third octave graphic EQ and delay on each of the 32 mixes, and hook up a rack of effects processors. The space and cost saving together with convenient stock and transport handling benefit is huge. And there are no compromises, no 'small print' - all the processing is available all the time - you can never run out of DSP!

iLive features an innovative ‘Processing-Strip’ interface that retains the familiarity of the traditional analogue console with its one-knob-per-function rotary controls and switches, and a display that gives the operator a quick overview of all settings at a glance. To access the processing for a channel or mix simply press its control strip 'SEL' key. For more detailed and graphical information, the parameter information can be displayed on the Touch-Screen too.

Channel processing is also controllable offline and online using ‘iLive System Manager’ software which can be run on your PC or laptop. Control of iLive is transmitted via TCP/IP over Ethernet - both the surface and the iDR10 Mix-Rack are equipped with Ethernet hubs making it easy to set up a control network - so for example, a technician could access channel mix processing such as graphic EQ and delay to set up the PA system from a laptop, while the FOH engineer concentrates on other tasks.

Preamp
The mic/line head amp controls are presented as you would find them on a conventional console. You even get a peak indicator. All the preamp parameters can be remote controlled from the console and stored in the scene memories. If the channel is assigned to a digital input then the gain control provides a +/-24dB trim.

SEL key
Press any processing block 'SEL' key to bring up the associated page on the Touch-Screen. Press and hold to PFL the signal at any point in the signal chain, or hold with the COPY, PASTE or RESET keys to edit parameters.

Insert
Insert points can be assigned to any input or mix. There is an insert present indicator and IN switch to toggle the inserted processing in or out.

High Pass Filter
Switch the filter in and dial the required frequency from 20 to 400Hz to eliminate unwanted low frequency pops and noise.

Gate
Every input channel features a noise gate with full parameter control including sidechain. The familiar control layout makes the dynamics very easy to use. The signal level is displayed behind the threshold setting to help you quickly find the gating point. You can even listen to the sidechain to check the key filter frequency.

Parametric Equaliser
4 band fully parametric EQ with HF and LF bands selectable for shelving or bell response. The uncluttered display quickly shows you the overall picture, with further detail available from the graph and values displayed on the Touch-Screen.

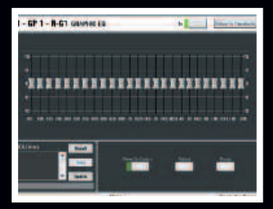
Compressor
A compressor is available on every input channel and mix master, presenting its own set of controls with a similar layout to the gate, complete with sidechain filter and a signal level display behind the threshold setting. The Touch-Screen adds a response graph and useful histogram of the gain reduction.

Limiter De-esser
The third dynamic processor adds a limiter to each input channel and mix master. The input limiter can be switched to become a de-esser, giving the operator both a compressor and a de-esser on vocal channels. There are no compromises - every dynamics processor is instantly accessible.

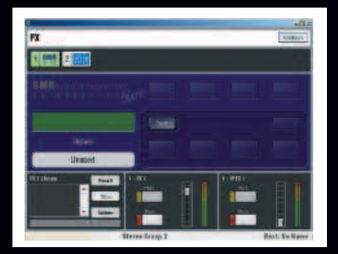
Processing

Delay
A delay module is included on all input and mix channels for time-alignment and compensation applications. Input delay adds the ability to align the speakers to an acoustically dominant source on stage such as a drum kit, or for improved clarity in theatre show re-inforcement. Parameters can be displayed as time or distance, and even provides temperature compensation. The delay is accessed from the channel thumbnail view in the Touch-Screen.

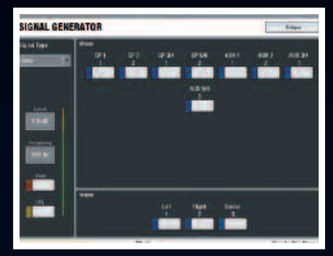
Graphic Equaliser
A third octave graphic EQ is provided on every mix channel, giving you an impressive total of up to 32 equalisers. The 25 bands provide standard ISO frequencies from 63Hz to 16kHz. Settings can be adjusted using the Touch-Screen, or flipped to the faders for quicker, more accurate control, for example when ringing out the speaker system. The fader view presents all bands as well as the mix master level control. Frequencies are displayed on the strip LCDs which change colour to indicate EQ mode. A GEQ FADERS OFF key lets you quickly restore the faders to normal operation. Settings can be stored as library presets, saved in scene memories or copied between mix masters.



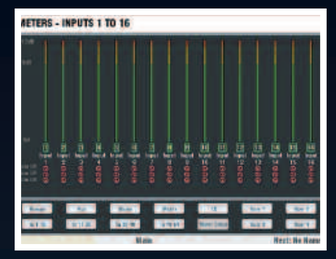
FX Processors
As standard, iLive provides two high quality FX engines created following years of development by the Allen & Heath design team. Internal ‘short’ stereo FX returns can be assigned to channel strips on the console surface without using up input channels giving you the equivalent of 68 sources feeding the mix. Up to four more FX engines may be configured from an additional DSP processing option..



PAFL Monitor
True to form, Allen & Heath have provided iLive with one of the most comprehensive console PFL/AFL monitoring systems available today. Features include the separate selection of input and mix PFL or AFL in-place, PFL override AFL (ideal for monitor duties), auto-cancel or additive mode, clear all, delay (for time alignment of engineer’s local and ear-based monitors), dual AFL masters for personal monitoring and wedge monitor listen, AFL trim control, and a user preference option to link the PAFL key function with the channel SEL and/or MIX keys. Add to this the provision of headphone amps at both the Mix-Rack and surface, the PAFL indicators that light on the Mix-Rack to display to the stage tech which channel is being checked, the extra 3.5mm mini jack for in-ear headsets, and the surface local monitor output...

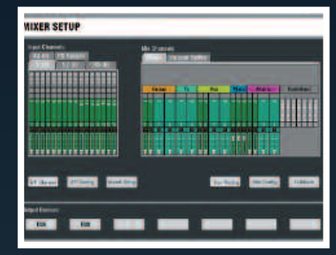


Signal Generator
An oscillator is provided with choice of white noise, pink noise, swept frequency sine wave or band pass noise, with level control and individual assignment to any output mix. This can be invaluable to the engineer when setting up the system.

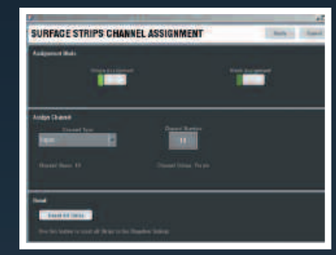


Metering
Apart from the extensive channel and 'Processing-Strip' metering, the Touch-Screen provides additional standard or user defined custom views of the system meters to keep you in touch with signal activity at all times. Gain reduction indicators for active gate, compressor, and limiter processing in the system are also shown in this screen. Using a computer running iLive system manager, a technician can oversee the signal distribution between the iLive console, the Mix-Rack, and other equipment anywhere on the control network (wireless freedom included!).

DCA Groups
iLive offers 16 DCA groups. Input channels and mix masters may be assigned to these groups. Surface strips may be configured as DCA masters with the ability to name and colour them for instant and error free operation. In keeping with the flexibility offered by iLive, the DCA masters (and all other channels) may be configured anywhere across the surface strips.



System Setup
The Touch-Screen provides access to the mix bus configuration and surface strip assignment menus. You can configure the bus architecture as any combination of groups, FX, auxes, mains and matrix for FOH or monitor mixing. The inputs, mix masters and DCAs can be freely assigned, named and coloured across the fader control strips and layers to suit your needs. In this way you can 'design' your own console - just right for your application.



Recall

Scenes Shows and Users

Scenes
One of the key reasons to use a digital console system is to be able to quickly recall the mix parameters. The iLive Scene Manager is a powerful utility which lets the user organise, store and recall snapshots of selected parameter settings. The scenes can be named, have a description added using the on-screen keypad, and have their contents viewed and edited using Touch-Screen menus. You can choose how much information is stored in each scene, from just one or two parameters to all mix parameters. For example, you may want to save just a selection of input channels including names, colours and parameters for a particular band in a festival situation.

During the live mix, the operator can use the on-screen manager or enable the dedicated keys within the fader bank for scene recall. The present and next scene are displayed at all times on the Touch-Screen, while a 'scene safe' feature is provided to isolate channels from automated control if things change during a show. MIDI connections are located on both the Mix-Rack and iLive surface for integration with other managed show devices.

Shows
The on-board iLive memory stores all setup information including mix bus assignment, surface strip configuration, the current settings, all scenes and parameter libraries as 'SHOW' files. The 'SHOW' is the archive of all settings for ensuring the system can be fully reset exactly as it was left. Previous shows may be recalled for use again in the future. The show manager utility allows the user to name the memory and to copy/move the files to and from a USB key. Show files provide a quick way for the new operator to learn iLive. Simply recall a standard 'template' as a starting point.

Security and User Permissions
The console owner, or administrator, has full control over the configuration and saving and recalling of data in the iLive system and may create password protected profiles for up to eight users to restrict their access to important data. The system can be protected from critical configuration, communication and parameter data being overwritten by users.

For example, in a 'festival' situation, engineers for each act can be given permissions to store input channel names and colours, and all the associated processing (preamp, gate, EQ, compressor, etc) during each sound-check or offline preparation. At the show, each band's settings can be recalled using Scene Manager without changing the system fader-strips, bus structure, or graphic EQ settings.

The iDR10 Mix Rack

The iDR10 is the 19" Mix-Rack housing the iDR-64 DSP mix engine module, the heart of the iLive system, and the CPU and RAB (remote audio) modules that manage the control and audio interfaces. It is the mixer itself, configurable and controllable via Ethernet using an iLive surface or PC. Ten additional slot positions are available to fit the required combination of input and output modules. Universal voltage power supply modules are fitted at the rear, with the second supply acting as a redundant back-up. The iDR-10 is intended for live audio rental, touring and show applications. It is supplied mounted inside a touring grade, shock-mounted flight case with lockable castors and removable front and back covers.

The user has a choice of modules available to fit in the 10 available Mix-Rack card slots. The same modules may be loaded into the 4 card slots on the rear of the surface:

8 channel XLR mic/line analogue input module
8 channel XLR line output module
8 channel (4 stereo pairs) digital input module - AES3, SPDIF, Optical
8 channel (4 stereo pairs) digital output module - AES3, SPDIF, Optical
Blank module

The RAB module provides the local headphones output and networked audio options. Up to two EtherSound (ES) card options may be fitted. These replace the traditional analogue multicore for audio at the surface, communicate the PAFL and talkback signals, provide mic splitting for FOH/monitor systems, and feeds to EtherSound compatible equipment such as audio break in/out boxes, speaker processors and multitrack recorders.

Option 1 - No ES cards. No audio network. PAFL and talkback are connected using XLR cables
Option 2 - 1 ES card (ESA). Provides 64 channel CAT5 link for surface and break in/out audio (digital snake)
Option 3 - 2 ES cards (ESA and ESB). Adds system expansion (64 channel digital mic split or expanding to 128 inputs)

The Mix-Rack is well equipped for the stage environment with a lamp socket for low lighting conditions, LED status indicators for channel phantom power (local or remote), mute and PAFL active (ideal for helping the stage tech find the right socket!).

Control for the system is TCP/IP over Ethernet with an integrated 3-port switch for connecting more than one network controller, for example an iLive surface and a laptop running iLive System Manager software. A PL-Anet port at both the Mix-Rack and surface lets you use Allen & Heath PL Series remote controllers to control certain aspects of the system, for example personal monitor mixes and triggering scene changes.

For PA companies, AV hire companies and audio system designers needing a high degree of flexibility, iLive provides a compact, modular set of components which can be integrated easily with other control and audio systems. Like its little brother iDR, iLive Mix-Rack will be found in venues from clubs to stadia, theatres, multi-purpose entertainment and conference facilities – in fact, in any type of live music setting.

The iLive Surface

The iLive surface is the primary live sound mixing user interface for the iDR-64 DSP mix engine. It connects to the Mix-Rack using CAT5 cables and is effectively part of the distributed audio and control networks. It is supplied in a three-part, nose-cone, touring grade flightcase on lockable castors.

All the control and system information needed by the live engineer is available at the surface. There is a choice of surface size available offering 28, 36, or 44 faders. With 4 layers per bank of faders you get the choice of no fewer than 112, 144 or 176 control strips freely assignable as input channels, mix masters, DCA groups and MIDI controllers. Even the smallest footprint iLive-112 surface has enough capability to handle a fully loaded 64 channel mix.

Connections: The rear of the iLive surface has a built-in card frame for loading up to 4 IO modules, a combination of up to 32 inputs and outputs, for local audio at the surface. The internal psu module may be supplemented with the rack mount iPS10 supply for redundant backup. Connections include local monitor XLR outputs, 1/4" and 3.5mm headphones sockets, XLRs for an analogue PAFL monitor input and talkback connections when EtherSound is not fitted, front and rear USB ports for memory archiving, and an external VGA screen output. You also get a built-in 3-port Ethernet switch, MIDI and PL-Anet.

iLive is easy to operate:

Press SEL to select the channel processing. All controls are instantly available.

Press MIX to access the assignments, levels and pan for each group or mix. Press an input channel MIX key to view the sends from that channel on the related master faders, for example to send a vocal to a combination of monitor mixes. Press the master MIX key to view all the sends to that mix, for example when building an in-ear monitor mix.

System Components and Options

iLive is a modular system. It may be ordered as a standard format or customised to your requirements. IO modules are interchangeable between the Mix-Rack and the surface. The heart of the system is the iDR10 Mix-Rack loaded with iDR-64 mix engine, but other formats may be introduced in time to complement the distributed digital audio network and control options as the system evolves. For rental companies and hire stock, this flexibility will prove invaluable to meet the demands of modern production. The number of processing input channels per iDR-64 DSP engine is 64. The number of configurable mix buses is 32.

iLive Surface
Control surface for the iDR10 Mix-Rack. The surface is shipped in a three-part touring grade flightcase. iLve-80: 20 fader-strps / iLive-112: 28 fader-strips / iLive-144: 36 fader-strips / iLive-176: 44 fader-strips

iPS-10 Power Supply
2U 19" rackmount back-up power supply for iLive-112/144/176. Shipped with DC power and temperature sense connecting cables.

Surface Remote Audio (RAB) Module
Required if EtherSound is used. One ES card fitted. This module is not interchangeable with the Mix-Rack RAB module.

Surface CPU Module
Required for managing the surface and interfacing the control to the Mix-Rack. It also provides additional Ethernet ports, MIDI and PL-Anet interface.

Mic/Line Input Module
8 high quality mic preamps on XLR. Remote controlled gain in 1dB steps. 80dB gain range including the 25dB pad. Individually switched +48V phantom power with local or remote phantom status LED. Check LED for active PAFL.

Digital Input Module
8 channels arranged as 4 stereo digital inputs each with choice of 3 formats: AES3, SPDIF & optical. 32kHz to 96kHz sample rate conversion. Check LED for active PAFL.

Line Output Module
8 electronically balanced XLR line outputs with Mute status LED, and check LED for active PAFL per channel.

Digital Output Module
8 channels arranged as 4 stereo digital outputs simultaneously available on 3 formats: AES3, SPDIF & Optical. Mute status LED, and check LED for active PAFL per channel.

iDR10 Rack
19" rackmount unit supplied in shock-mounted inner frame in touring grade flightcase. 10 option slots for I/O modules + RAB, DSP, and CPU modules.

iDR10 PSU (module option)
One or two psu modules may be fitted to the rear of the iDR10 Mix-Rack

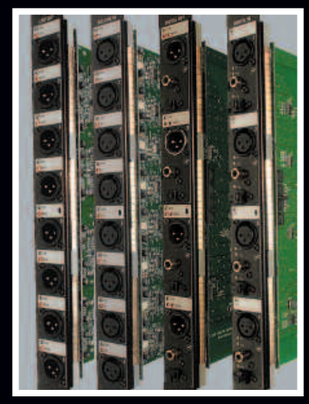
iDR-64 DSP Module
DSP mix engine has 64 processing input channels and 32 configurable mix bus channels plus additional DSP for the optional output and effects processing.

Mix-Rack CPU module
Required for managing the Mix-Rack and interfacing the control from the surface. It also provides additional Ethernet ports, MIDI and PL-Anet interface. A lamp socket is included.

Mix-Rack Remote Audio (RAB) Module
Required for managing the system clocks, headphones and optional network audio cards. A DARS (digital audio reference signal) output is provided. This module is not interchangeable with the surface RAB module.

EtherSound A (ESA) card option
May be fitted to the Mix-Rack RAB module to provide the EtherSound remote audio to/from the surface and other EtherSound compatible devices.

EtherSound B (ESB) card option
May be fitted to the Mix-Rack RAB module to provide the EtherSound system expansion including 64 channel mic split or expanding to 128 inputs. May also be used for multitrack recording.



Specifications

Format:

Distributed dual network audio and TCP/IP control
Separate DSP mix rack and control surface
3x surface sizes
Up to 64x input channels
Up to 32x assignable mixes
16 DCA groups
Up to 10x 8 channel IO cards in mix rack (80x in/out)
Up to 4x 8 channel IO cards in surface (32x in/out)
Surface strips assignable as:
Channels, mix masters, DCA masters, PAFL masters, MIDI controllers
One knob per function channel processing strip

Surface control:

iLive-80 (20 faders, 4 layers = 80 assignable strips)
iLive-112 (28 faders, 4 layers = 112 assignable strips)
iLive-144 (36 faders, 4 layers = 144 assignable strips)
iLive-176 (44 faders, 4 layers = 176 assignable strips)
Multi-colour backlight LCD virtual 'write-on' strip and mix status
Control strips – fader, pan, MIX, MUTE, PAFL, SEL, LCD, meter
Touchscreen with function keys
User assignable soft keys
Analogue style channel strip for instant access
Rotary controls with LED position display
Additional graphic display of parameters on touchscreen
Surface LED/LCD and touchscreen dim controls
Surface lock function

Analogue mic/line inputs (8x per module):

Digitally controlled preamp
ADC 24-bit multi-bit delta sigma
108dB dynamic range
Balanced female XLR, pin 2 hot
Impedance 2k ohm, >10k ohm (pad in)
Gain +10 to +65dB, -15 to +40dB (pad in)
Resolution 1dB steps
Pad 25dB
Maximum input +30dBu (pad in)
Noise EIN (150 ohm) -127dB
Module LEDs 48V, CHK (PAFL)

Analogue line outputs (8x per module):

DAC 24-bit multi-bit delta sigma
114dB dynamic range
Balanced male XLR, pin 2 hot
Impedance < 75 ohm
Nominal output +4dBu
Maximum output +22dBu
Residual output noise -94dBu
Module LEDs MUTE, CHK (PAFL)

Digital inputs (8x channel = 4x stereo pairs):

Select one of three formats per pair:
AES3, SPDIF, Optical
Sample rate conversion selectable on each pair
Module LEDs SEL, CHK (PAFL)

Digital outputs (8x channel = 4x stereo pairs):

Three formats simultaneously available:
AES3, SPDIF, Optical
DARS (digital audio reference signal) master clock
Module LEDs MUTE, CHK (PAFL)

Audio networking:

2x 64 channel bi-directional EtherSound networks
Compatible with standard EtherSound network devices
ESA for surface/breakout audio (replaces multicore)
ESB option for system expansion (FOH/monitor split, sys-link, multitrack)
Maximum CAT5 cable length 100m / 330 feet (depending on cable used)
Can work with third party optical fibre / dual redundant systems

Control (available on each mix rack and surface):

TCP/IP Ethernet – mix rack, surface, touchscreen
Integrated 3-port Ethernet switch
Maximum CAT5 cable length 100m / 330 feet
Can work with standard Ethernet optical fibre / dual redundant systems
MIDI (mix rack and surface)
PL-Anet for A&H PL-Series controllers (mix rack and surface)

Digital signal processing module:

48kHz sampling
24-bit, 48-bit data in EQ processing
System latency < 2ms rack in to out, < 2.25ms surface in to out

General performance:

Frequency response 20-20kHz +0/-0.5dB
THD+N < 0.004% (1kHz, mic +35dB to line out)
Channel separation > 95dB

Audio architecture:

Inputs can be stereo linked
32 mixes assignable as:
Mono/stereo groups,
Mono/stereo internal effects
Mono/stereo auxes
Main mix – M, LR, LCR, LCR+, LR+Sub, LCR+Sub, LR+M, LCR+M
Mono/stereo matrix
Inserts assignable on every input and mix
Patchable channel direct outs and bus in/outs
Switchable mono/stereo PFL or AFL

Audio routing:

Input virtual patchbay
Output virtual patchbay
EtherSound routing
Insert patchbay
User pre/post send and direct out options

Audio metering:

16 LED main channel/mix meters
Extensive metering on processing strip
Peak indication across fader layers
Dedicated PAFL meters
Dedicated touch screen meter mode

Audio monitoring:

2x headphone amps (mix rack and surface)
2x sockets on surface - standard and 3.5mm mini jack
Surface local stereo monitor balanced XLR line outputs
Surface stereo PAFL balanced XLR audio inputs
Select and listen to any point in the signal path
Input and mix PFL or AFL in-place selection
PFL overrides AFL
Cancel all PAFL function
Auto cancel or additive PAFL mode
AFL trim up to 12dB gain
Dual engineer's monitor mode (wedge/in-ear systems)
PAFL indication at mix rack (CHK indicators)
Solo-in-Place with SIP safes

Input channel processing:

Preamp – gain, pad, polarity, 48V
HPF – 12dB/octave swept 20-400Hz
Noise gate – threshold, depth, hold, attack, release, sidechain
PEQ – 4 band fully parametric, shelf selectable on HF and LF
Compressor – threshold, ratio, attack, release, auto, soft knee, gain, sidechain
Limiter/de-esser – threshold, de-ess frequency, sidechain with key filter listen
Delay – up to 170ms

Mix processing:

PEQ – 4 band fully parametric, shelf selectable on HF and LF
GEQ – 1/3 octave, 25 band, touch screen and fader control
Compressor – threshold, ratio, attack, release, auto, gain, sidechain
Limiter – threshold, sidechain with key filter listen
Delay – up to 340ms

Effects processing rack:

2x internal stereo effects (6x with processing option)
Output processing rack (option):
Provides more effects or output processing

Memories:

Libraries – Gate, PEQ, GEQ, Comp, Limiter, De-esser, FX
Scenes – selectable parameters, safes, can be named
Shows – Configuration, current settings, all scenes, libraries
USB memory key library and show archive

Additional functions:

User assignable channel LCD names, 5 characters
User assignable channel LCD colours, 6 colours + off
Alt view channel LCD display / encoder function
Freeze in layers strip function
Assignable permissions for up to 8x users
User assignable meter screens
Simultaneous view of all graphic EQ bands on faders
Talkback assignable to any combination of mix buses
Internal signal generator:
Swept frequency sine wave, swept bandpass, white, pink noise
Copy/paste/reset editing of channel and mix parameters
Quick all channel mix assign and pre/post selection
8x assignable soft keys

Power supplies:

2x mix rack psu modules (Second for redundant backup)
1x surface internal psu module
Optional iPS10 2U rack psu for surface redundant backup
Mix rack power requirement 100-240V.AC, 47-63Hz, 320W max
Surface power requirement 100-240V.AC, 47-63Hz, 320W max
Temperature monitoring at surface of all supplies and circuits

Dimensions (Width x Height x Depth):

Mix rack 482mm (19") x 400mm (15.75") 9U x 350mm (13.8")
Mix rack flightcase 643mm (25.3") x 730mm (28.75") x 669mm (26.34")
Surface iLive-80 753mm (29.6") x 353mm (13.9") x 707mm (27.7")
Surface iLive-112 1006mm (39.6") x 353mm (13.9") x 707mm (27.7")
Surface iLive-144 1206mm (47.5") x 353mm (13.9") x 707mm (27.7")
Surface iLive-176 1406mm (55.35") x 353mm (13.9") x 707mm (27.7")
Flightcase iLive-112 1107mm (43.6") x 1017mm (40") x 452mm (17.8")
Flightcase iLive-144 1307mm (51.46") x 1017mm (40") x 452mm (17.8")
Flightcase iLive-176 1507mm (59.33") x 1017mm (40") x 452mm (17.8")
iPS10 psu 482mm (19") x 88mm (3.46") 2U x 310mm (12.2")

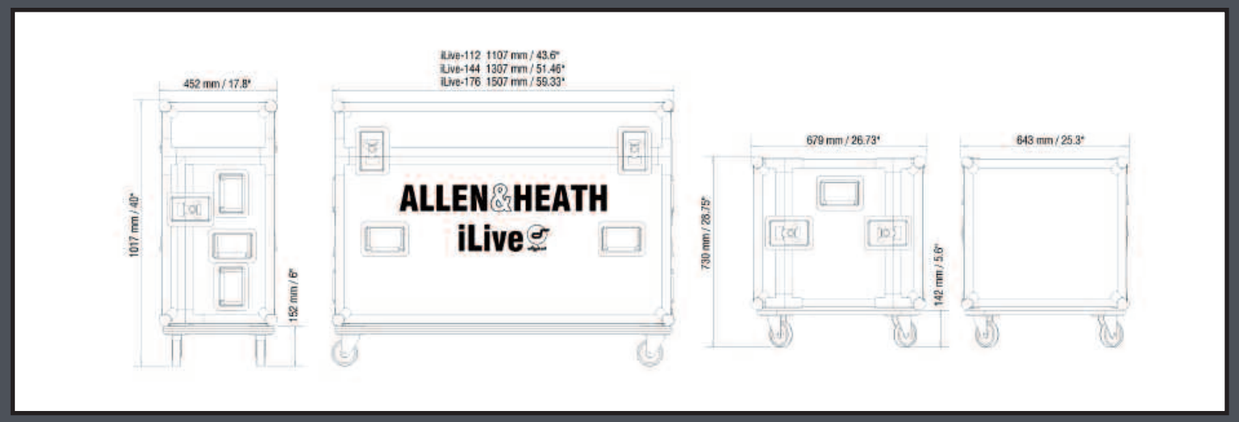
Weights:

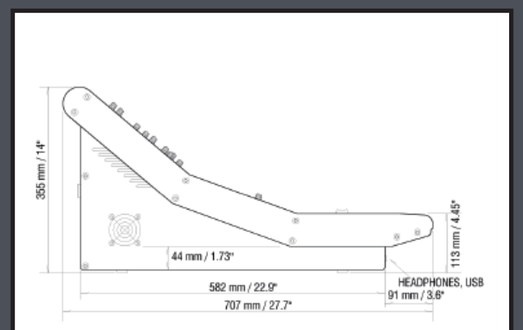
Mix rack 26kg (57 lb), 68kg (150 lb) in flightcase
iLive-80 39kg (86 lb), no flightcase
iLive-112 43kg (95 lb), 98kg (216 lb) in flightcase
iLive-144 48kg (106 lb), 114kg (251 lb) in flightcase
iLive-176 54kg (119 lb), 124kg (273 lb) in flightcase
iPS10 psu 6kG (2.7 lb)

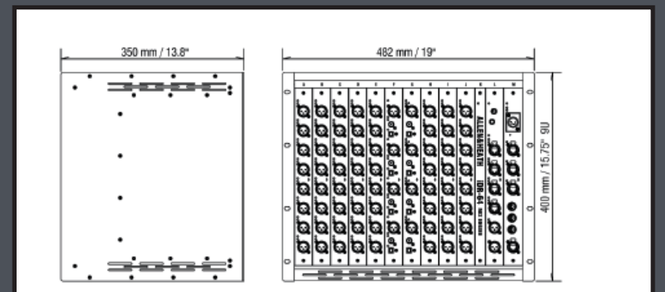
* Not all the listed functions are available at first product ship. Some functions will be introduced in planned future software releases.

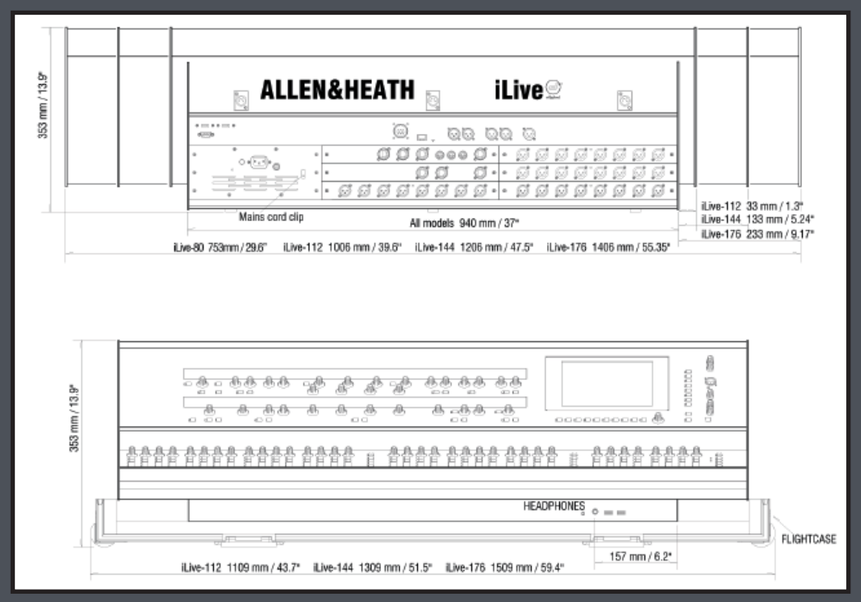
** We reserve the right to make changes in the interest of further product development.

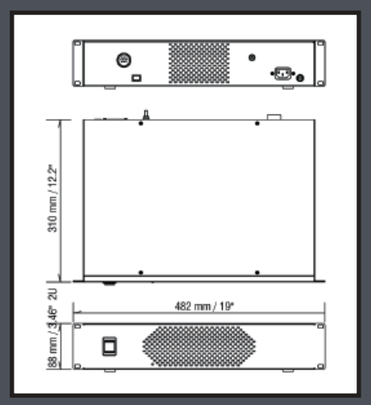
Mechanical Specifications

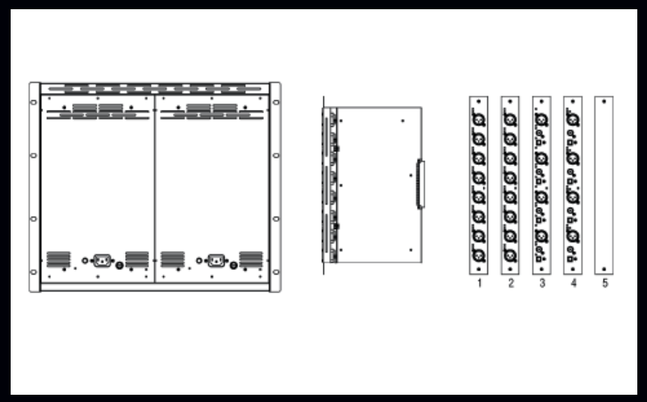










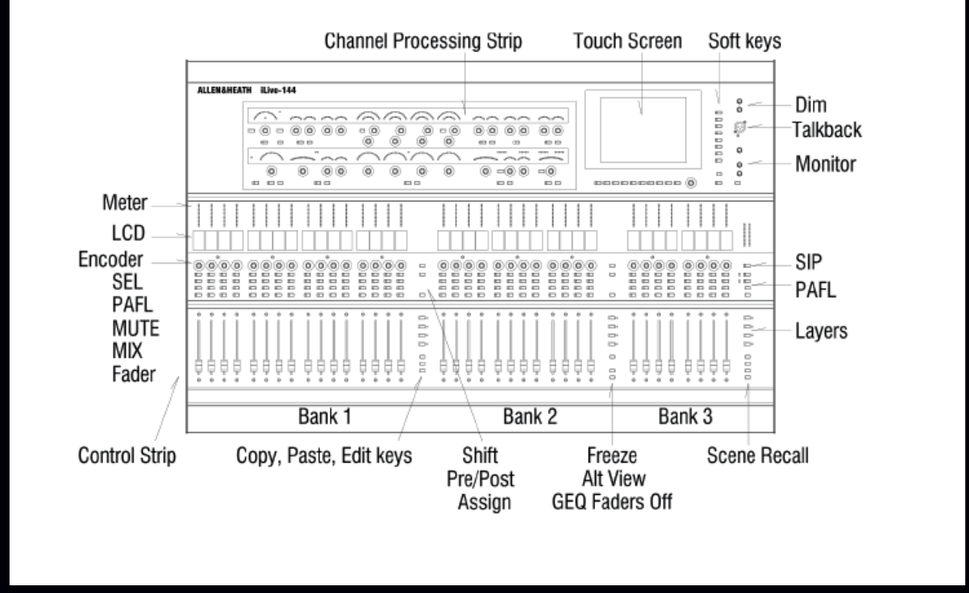


I/O modules:

1. 8 channel mic/line input
2. 8 channel line output
3. 8 channel digital input
4. 8 channel digital output
5. Blank

Mix-Rack psu module x2

Surface Layout



iLive

Flexible modular architecture . Ground-up design . Ethernet control .
EtherSound audio . Intuitive analogue feel . Small footprint .

"The new iLive affordable digital console range with large scale system distribution and configuration possibilities now brings an intuitive, analogue feel to digital mixing."

ALLEN&HEATH WORLD CLASS MIXING

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