



DIGITAL MIXING SYSTEM



ALLEN & HEATH

ACCESSIBLE, FLEXIBLE, DIGITAL



GLD inherits the key benefits of our iLive pro touring system and makes them affordable for the kinds of hardworking rental companies, houses of worship and live venues that have used and loved our GL series analogue mixers for many years.

GLD is more than a mixer—it's a complete digital mixing system. Our dSNAKE Cat5 digital multicore together with our plug 'n' play audio racks and expanders make it simple and affordable to build the system as your needs grow. Networking cards let you link GLD systems, make multi-track recordings or connect with other equipment. An Aviom™ compatible Monitor port allows connection to personal monitoring systems.

Analogue veterans, digital converts and novices alike will feel at home with GLD, thanks to a balance of WYSIWYG analogue-style controls and intuitive touchscreen interface. The layout and appearance of the GLD-80 can be customised quickly and easily, providing an interface that logically mirrors your application and puts the operator at their ease.

As you would expect from Allen & Heath, GLD delivers outstanding audio performance, with a new high-end mic preamp, low latency and the DSP muscle to provide full processing without compromise. GLD-80's FX engines are taken directly from the iLive system and feature beautifully crafted emulations of industry classics.

Finally, a system that delivers all the benefits of digital mixing at the price of an analogue mixer—and that's before you think about all the outboard gear it replaces.

CORE FEATURES

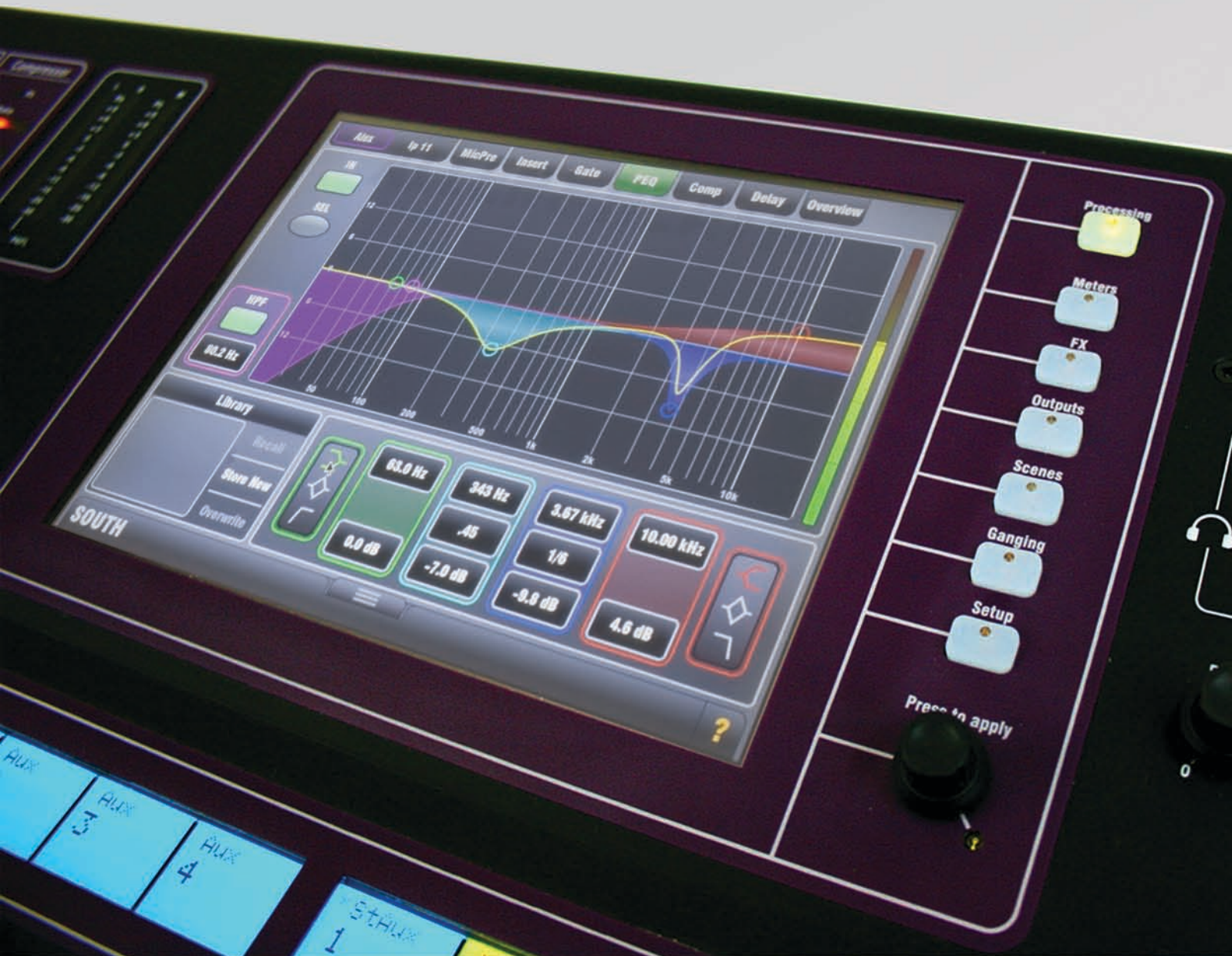
- Compact digital mixer with scalable, remote I/O
- Systems from 4 to 44 mics
- Easy to use, quick to access, analogue style interface
- dSNAKE Cat5 digital snake—up to 120m cable length
- 8.4 inch colour touchscreen for graphical view and setup
- 20 faders, 4 layers, 80 channel strips in a freely customizable layout
- 48 input channels into 30 assignable buses (Aux, Group, Matrix, Main, FX Send) into 20 mix outputs
- 8 stereo RackFX engines with dedicated 'short' returns with 4-band PEQ
- Full processing on all inputs including trim, polarity, HPF, insert, gate, 4-band PEQ, compressor and delay
- Full processing on all outputs including insert, PEQ, GEQ, compressor and delay
- LR, None (monitors), LR+M (sum), LR+M (bus), LCR main mix modes
- 16 DCAs / mute groups
- Built-in Talkback, RTA and Signal Generator
- I/O module options for FOH/Monitor split, multitrack recording, link to iLive and more
- MIDI In/Out and Ethernet Network port
- Aviom™ compliant Monitor port on main AudioRack
- High end 1dB step recallable mic/line preamps
- User definable channel names and colours
- Engineer's mono Wedge and stereo IEM strips
- Input, output and insert soft patchbays
- Quick copy, paste and reset of mixes and parameters
- Libraries, Scenes and Show memories with USB transfer
- Get started quickly with Template Shows



ULTIMATE USER EXPERIENCE

Touchscreen

GLD-80 features a colour touchscreen with on-screen keyboard and dedicated data encoder for instant and intuitive access to all key functions and parameters. The user friendly interface has been designed from scratch with simplicity in mind:



Analogue style processing strip

GLD-80 puts essential controls like Preamp, HPF, Gate, Parametric EQ and Compressor right at your fingertips. Hit the Select key on a channel strip and the processing strip becomes the controls for that input or mix, with clear visual displays of current settings and dedicated, analogue style controls.



Customizable surface layout

20 faders arranged in 4 layers means you get access to 80 independent channel strips. Not only can you design your own mixer by arranging them across the surface, but each one comes with a write-on display where custom names and colours for easy identification are coupled with information relevant to the current mix mode.

Assign strips to Inputs, FX, Mix masters, DCAs or engineer's Wedge/IEM.

Quickly control gains, pan and two custom parameters such as aux or FX sends with the fader strip rotary encoders.

Manage your mix with 2 buttons. Access all the processing for each strip with Sel and Mix parameters/contributions.



Drag 'n' drop channels to customize the surface strip layout.

Tap on a socket to patch an input or output channel

GLD-80 THE HEART OF THE SYSTEM

Quickly access preamp gain and Pad, HPF frequency, gate threshold, frequency, gain and bandwidth for each PEQ band, compressor threshold, ratio and gain

Each strip contains coloured display, assignable rotary encoder, 5 LED bar meter, Mute, Select, Mix and PAFL switches, and 100mm motorised fader

20 faders in 2 banks. Each bank of faders has 4 layers to provide access to lots of channels in a compact space

Copy, Paste or Reset any section of channel processing, a whole channel or mix



USB 2 track playback, recording, data transfer, archiving and firmware update

Dedicated, assignable Talkback button

10 user-assignable SoftKeys for scene recall, DCA mutes, quick Sel or Mix access, tap tempo and much more

'Scene Safe' protects a channel from being overwritten when recalling a scene

'Freeze in Layers' keeps a channel in place regardless of layer selection

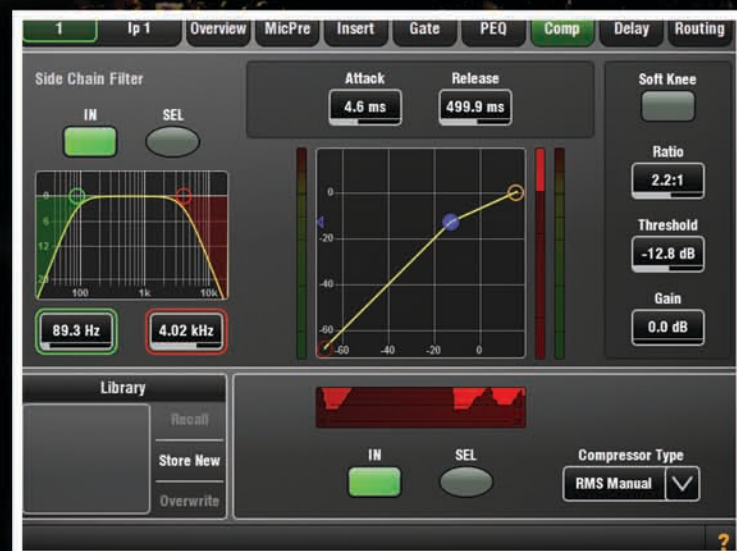
GEQ Fader Flip toggles access to the Graphic EQ on faders

OUTSTANDING AUDIO QUALITY

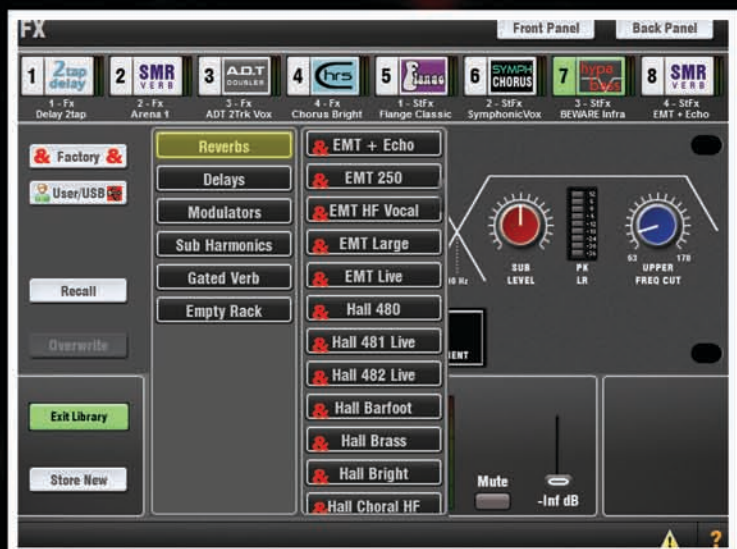
iLive Heritage

GLD builds on the success of the iLive digital mixing system and delivers the same outstanding audio quality, transparency, low latency and proven reliability.

One of the great strengths directly inherited from iLive is its dynamics and acclaimed suite of FX: 8 stereo RackFX engines with the additional, dedicated channels and buses to handle them all without compromise. GLD is capable, for example, of simultaneously running up to 56 sources, 20 mix outputs, 6 mono FX and 2 stereo FX to the mix.



Try out various compressor styles and pick your favourite algorithm for each channel.



Choose from a library of emulations of classic industry devices, and enjoy the very same FX sound that has toured the globe with Adele and many others.

Classic FX Emulations



Spatial Modelling Reverberation

Based around 4 complex spatial modes - Classic, Hall, Room, EMT. Each of these models employ different reflection and decay algorithms to provide natural sound spaces.

2Tap Delay

Generate separate left and right delay from a mono source, each with its own tempo. These can be linked for mono output. Tap the screen, dial the value or assign tap tempo to SoftKeys for delay from 5ms to 2.7s. Controls let you adjust delay, feedback, filters and width to create a wide range of effects.

ADT

Create classic automatic double tracking effects, voice thickening, vintage slap back tape delay loop emulation and more. Generate double or quad tracked voices from a mono source with stereo width enhancement and auto panning control.

Chorus

Recreate the classic analogue chorus effects from the 80's using 3 stereo field emulations which can be combined to create even more variation. Features a built-in sine or rectified LFO modulator and auto panner.

Flange

3 emulations - subtle airy 'Ambient', classic silky tape-based 'Vintage', and an untameable 'Wild' effect. Classic pedal flangers were researched and their many LFO modulation, regeneration and stereo splitting effects implemented here.

Hypabass

A sub-harmonic synthesizer classically used in the live environment to generate infra (lower than 35Hz) and sub bass (35-70Hz) from weaker bass programme. It features very low distortion and separate control of these two frequency spectrums.

Symphonic

A faithful emulation of this simple to use, frequently requested classic 80's chorus. Using just two controls it produces a rich and lively chorus sound with suggestion of mild phasing. Two presets satisfy the popular live sound application - SymphonicVox and SymphonicStrings.



PLUG & PLAY SYSTEM BUILDING

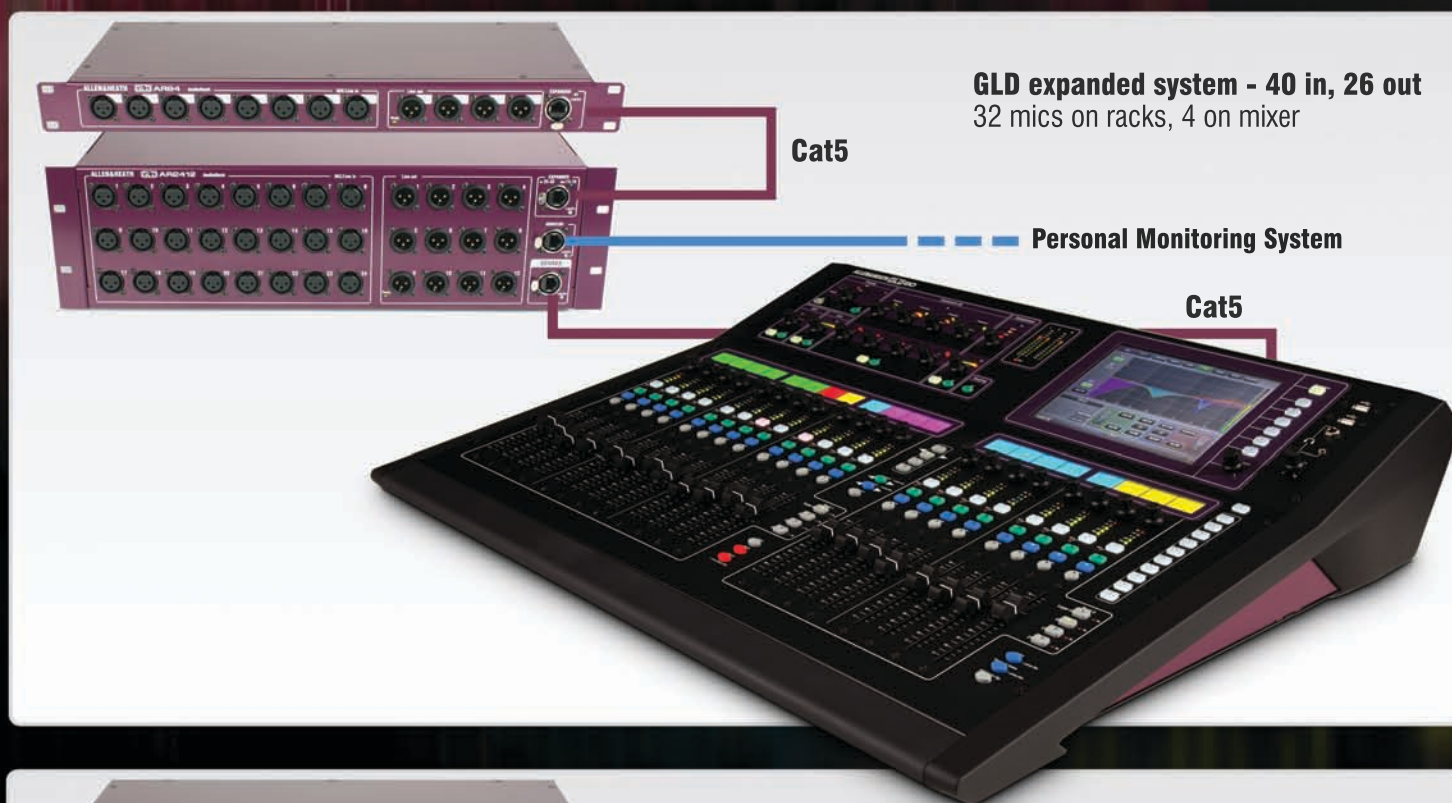
True plug 'n' play

GLD gives you the freedom to put your I/O where you need it and the flexibility to expand and adapt your system as your needs change. The GLD-80 mixer is the heart of any GLD system. Although GLD-80 is capable of standalone operation, it comes into its own when connected to the main GLD-AR2412 AudioRack and up to two GLD-AR84 expanders. All components in a GLD system are connected over up to 120 metres (over 390ft) of Cat5 cable, so no more bulky, costly copper multicores.

GLD standard system - 32 in, 22 out
24 mics on rack, 4 on mixer



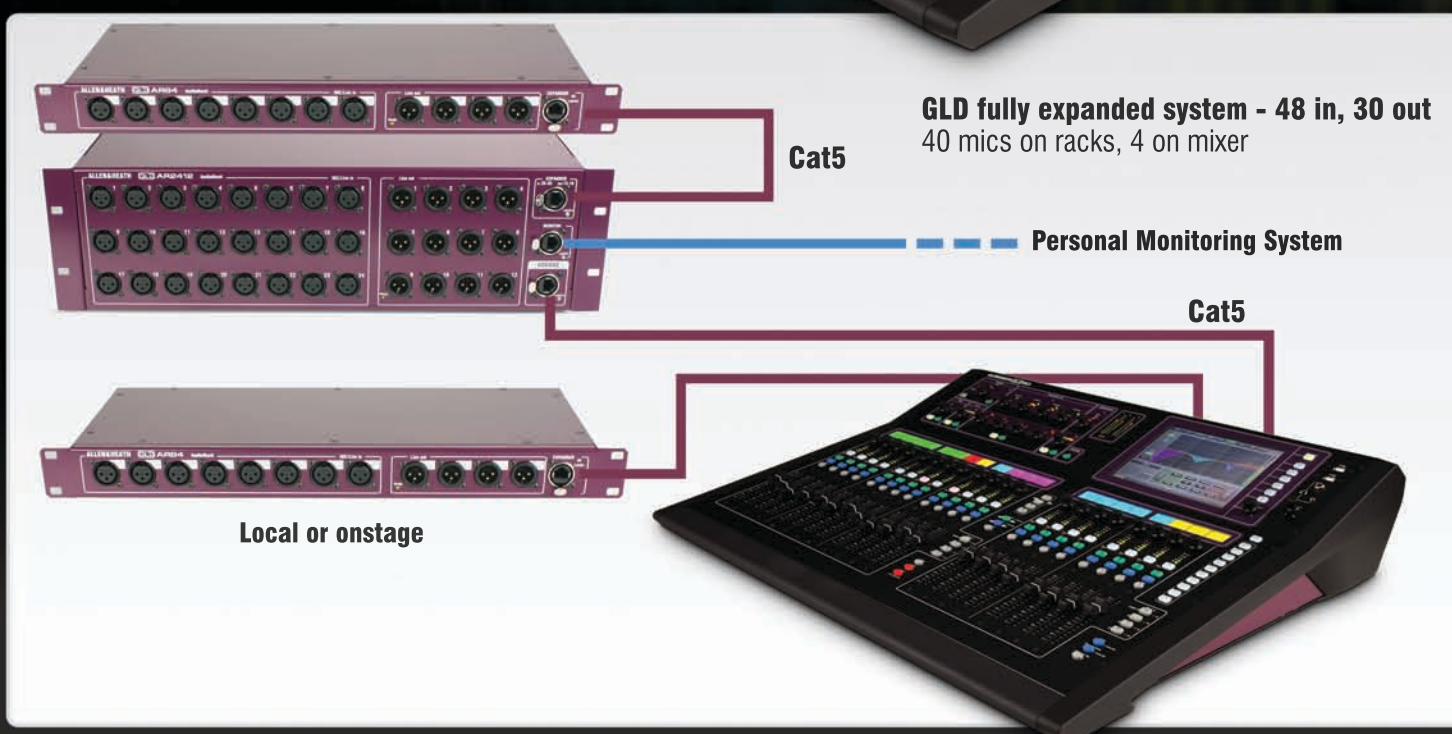
GLD expanded system - 40 in, 26 out
32 mics on racks, 4 on mixer



GLD compact system - 16 in, 14 out
8 mics on rack, 4 on mixer



GLD fully expanded system - 48 in, 30 out
40 mics on racks, 4 on mixer



EXPANDABLE SYSTEM WITH FLEXIBLE I/O



Ethernet Network connection for future control options

Cat5 dSNAKE port to connect to GLD-AR2412 AudioRack

Expander port to connect an additional GLD-AR84 AudioRack

64 ch. 2 way remote audio port, supports a range of A&H option cards

8 inputs—4 Mic/Line XLR, 2 stereo RCA line inputs

10 outputs—4 XLR, stereo RCA, 1 S/PDIF, 1 AES3

GLD-AR2412 AudioRack



24 XLR Mic/Line inputs
12 XLR Line outputs

Cat5 dSNAKE port to connect to GLD-80 Mixer

Monitor port - Aviom™ compatible

Expander port to connect a GLD-AR84 AudioRack

GLD-AR84 AudioRack



8 XLR Mic/Line inputs
4 XLR Line outputs



Connects to a GLD-AR2412 on stage or directly to the mixer

RECORD, PLAY, TRANSFER & ARCHIVE

Easy to Capture

Nowadays everybody wants a recording of the show. No problem. Capturing a high quality stereo recording with GLD could not be simpler - plug in your USB stick, patch your source and press record.



2 track WAV recording from any source or Mix master

Multi format playback support—patch to any Input channel: WAV, MP3, MP4 (m4a/AAC), FLAC

Easy to Backup

Use your USB stick to perform firmware updates, archive & transfer Libraries and Shows.

One of the major advantages of going digital is the ability to take a complete snapshot of the mixer with the press of a button. GLD can store all parameters and settings into Scenes and recall them all at will. All the scenes can be wrapped up into a Show so that at the end of the night settings can be saved or archived to USB.

Personalised settings for each processing block, channel or FX can be saved as Library presets, which can be transferred to USB key for backup or use on another GLD system.



EXPAND, CONNECT, INTEGRATE

Option Cards

A range of option cards allows GLD systems to be connected using Dante, MADI, EtherSound and more. Multichannel recording and digital split can easily be configured using GLD's extensive soft patching.



ACE

ACE (Audio & Control over Ethernet) is Allen & Heath's own, cost-effective multichannel protocol. With up to 64 channels to and from another GLD or iLive system, it's ideal for a FOH/Monitor digital split and affordable audio distribution.



DANTE

Connect to any Dante-enabled device with Audinate's AVB-ready, TCP/IP friendly Dante protocol, and record / playback up to 64 tracks with a Cat5 cable and the Dante Virtual Soundcard (ASIO / Core Audio compatible) - no need for third party interfaces.



MADI

Industry standard MADI is a frequent choice of equipment interconnection in live, studio and broadcast applications. Connect up to two, 64 channel bidirectional MADI streams with up to 150m of coaxial cable, and set the Aux BNC connector to daisy-chain or split signals to multiple devices.



WAVES

Hook up a Waves Server for high-precision, ultra low latency plug-in processing, multitrack recording and playback, benefitting from Waves audio-over-Ethernet SoundGrid technology—specifically designed for real-time audio applications.



EtherSound

A popular low latency industry networking standard supporting 64 channels of bidirectional audio over Cat5 cable, EtherSound can link to a significant number of third party devices available for audio distribution, recording and more.



MMO

MiniMultiOut gives you a variety of formats for multichannel digital output including 3x ADAT ports (24 channels), Aviom™ (16 channels) and links to Allen & Heath's iDR series or the Hear Back personal monitoring system.



Inputs

XLR Mic/Line Inputs
Mic/Line Preamp
Input Sensitivity
Analogue Gain
Pad
Maximum Input Level
Input Impedance

Balanced, (All XLR on GLD-80 and AudioRacks)
Fully recalable
-60 to +15dBu
+5 to +60dB, ~1dB steps
-20dB
+32dBu
>4K Ω (Pad out), > 10K Ω (Pad in)

Mic/Line Channel noise
Mic EIN
Unity gain (Pad in)
Low gain (5dB, Pad out)
Mid gain (30dB, Pad out)

20-20kHz, Direct Out @ unbalanced out
-127dB with 150 Ω source
-90dBu
-93dBu
-89dBu

Mic/Line Channel THD+N
Unity gain (Pad in)
Low gain (5dB, Pad out)
Mid gain (30dB, Pad out)

20-20kHz, Direct Out @ unbalanced out
0.005% -86dBu @ 1kHz, 0dBu output
0.003% -89dBu @ 1kHz, 0dBu output
0.004% -88dBu @ 1kHz, 0dBu output

RCA Line Inputs
Input Sensitivity
Trim
Maximum Input Level
Input Impedance
RCA channel Noise
RCA channel THD+N

Unbalanced (GLD-80)
-24 to +24dBu, nominal 0dBu
+/-24dB, recallable
+18dBu
>10K Ω
-92dBu, 20-20kHz
0.0035% -90dBu @ 1kHz, 0dBu output

Outputs

XLR Outputs
Output Impedance
Nominal Output
Maximum Output Level
Residual Output Noise

Balanced, Relay protected
<75 Ω
+4dBu = 0dB meter reading
+22dBu
-91dBu (muted, 20-20kHz)

RCA Line Outputs
Output Impedance
Nominal Output
Maximum Output Level
Residual Output Noise

Balanced, Relay protected
<75 Ω
0dBu = 0dB meter reading
+18dBu
-94dBu (muted, 20-20kHz)

Digital Outputs

48kHz sampling rate
RCA, 600mV, coax terminated input 75 Ω
XLR, 2.5Vpp balanced terminated 110 Ω

SPDIF
AES3 2 ch XLR output

System

Measured balanced XLR in to XLR out, 20-20kHz, minimum Gain, Pad out

Dynamic Range
System Signal to Noise
Frequency Response
System peak level THD+N
System Line level THD+N

112dB
-90dB
0/-0.25dB @ 20Hz, 0/-0.5dB @ 20kHz
0.0055% -68dBu @ +17dBu output, 1kHz
0.0022%, -84dBu @ +9dBu output, 1kHz

Headroom
Internal operating Level
dBFS Alignment
Meter Calibration
Meter Peak Indication
Meter Type

+18dB
0dBu
0dBu = 0dBFS (+22dBu at XLR output)
0dB meter = -18dBFS (+4dBu at XLR out)
-3dBFS (+19dBu at XLR out)
Fast (peak) response

Sampling Rate
ADC
24-bit Delta-Sigma
DAC
Latency

48kHz +/-100PPM
24-bit Delta-Sigma
24-bit Delta-Sigma
1.49ms (GLD-80 local XLR in to XLR out)
0.68ms (GLD-80 local XLR in to digital out)

USB Playback
USB Record

2 channel, WAV, MP3, M4A, FLAC
2 channel, 44.1kHz / 16bit - WAV

I/O Port
Card Options

64 channel bi-directional
A&H ACE, MADI, Dante, ES, Waves, MMO

Operating Temperature Range
0 deg C to 35 deg C (32 deg F to 95 deg F)

Mains Power

GLD-80
GLD-AR2412
GLD-AR84

100-240V AC, 50/60Hz, 95W max
100-240V AC, 50/60Hz, 70W max
100-240V AC, 50/60Hz, 20W max

Dimensions and Weights

GLD-80 Mixer
Unpacked
Packed in shipping box
Unpacked weight
Packed weight

Width x Depth x Height
730 x 577 x 159mm (28.7" x 22.7" x 6.2")
930 x 730 x 290mm (36.6" x 28.6" x 11.4")
16kg (35lbs)
21kg (46lbs)

GLD-AR2412 AudioRack
Unpacked
Packed in shipping box
Unpacked weight
Packed weight

Width x Depth x Height
483 x 220 x 48mm (19" x 8.6" x 5.4") 3U rack
600 x 350 x 250mm (23.6" x 13.7" x 9.8")
5kg (11lbs)
6.4kg (14lbs)

GLD-AR84 AudioRack
Unpacked
Packed in shipping box
Unpacked weight
Packed weight

Width x Depth x Height
483 x 220 x 48mm (19" x 8.6" x 5.4") 1U rack
600 x 330 x 143mm (23.6" x 12.9" x 5.6")
3kg (6.6lbs)
4.4kg (9.7lbs)

Control

Faders
Fader Banks
Touch Screen
Control Strips
Strip Display
Softkeys
MIDI
Network

100mm motorised
2 Independent banks - 12, 8 faders
8.4" TFT, 800x600 resolution
4 Layers per Bank = 80x strips
LCD per strip, assignable backlight colours
10 assignable
MIDI In and Out
TCP/IP Ethernet (for future application)

Input Processing

48 Input Processing Channels
Trim
Polarity
High Pass Filter

Mono = 1-44, Stereo = 45/46, 47/48
+/-24dB digital trim
Normal/Reverse
12dB/octave 20Hz - 2kHz

Insert
Delay

Assign to any sockets, In/Out, +4dBu/-10dBV level
Up to 85ms
Input global setting - ms, feet, meters, samples

Gate
Sidechain
Sidechain Lo-Cut Filter
Sidechain Hi-Cut Filter
Threshold
Depth
Attack
Hold
Release

Input global setting - ms, feet, meters, samples
Self key, In/Out, Sel 'listen'
12dB/octave, Freq 20Hz - 5kHz
12dB/octave, Freq 120Hz - 20kHz
-72dBu to +12dBu
0 to 60 dB
50us to 300ms
10ms to 5s
10ms to 1s

PEQ
Type
Frequency Range
Analogue Ranges
Band 1
Band 2
Band 3
Band 4
Bell Width
Shelving Type
Hi-Pass, Lo-Pass Filter

4-Band fully parametric, +/-15dB
Global setting for Mixes = 20-20kHz or 'Analogue'
20-200Hz, 35-1kHz, 500-15kHz, 2k-20kHz
Selectable LF Shelving, Bell, Hi-Pass
Bell
Bell
Non-constant Q, variable, 1.4 to 1/9th octave
Classic Baxandall
12dB/octave

Compressor
Sidechain
Sidechain Lo-Cut Filter
Sidechain Hi-Cut Filter
Threshold
Ratio
Attack
Release
Knee
Manual Types
Auto Types

Self key, In/Out, Sel 'listen'
12dB/octave, Freq 20Hz - 5kHz
12dB/octave, Freq 120Hz - 20kHz
-46dBu to 18dBu
1:1 to infinity
300us - 300ms
100ms - 2s
Soft/Hard
Peak Manual, RMS Manual
VocalAuto, OptoAuto, PunchBag
Individual Trim (per channel)
Source, follow Fader, follow Mute (global for all)

Channel Direct Out
Options

Mix Processing

20 Mix Processing Channels

External Input
Trim
Polarity

Assignable source
+/-24dB digital trim
Normal/Reverse

Insert

Assign to any sockets, In/Out, +4dBu/-10dBV level

Delay

Up to 170ms
Mix global setting - ms, feet, meters, samples

GEQ
Type
Gain
GEQ Fader Flip Mode

Constant 1/3 octave, 28 bands 31Hz -16kHz
+/-12dB
2 overlapping frequency banks on strip faders
layer 1 - 31-1kHz + Mix master fader
layer 2 - 500-16kHz + Mix master fader
SEL key resets frequency band to 0dB
RTA following PAFL is displayed on strip meters

PEQ

4-Band fully parametric, +/-15dB
Global setting for Mixes = 20-20kHz or 'Analogue'
20-200Hz, 35-1kHz, 500-15kHz, 2k-20kHz
Selectable LF Shelving, Bell, Hi-Pass
Bell
Bell
Selectable HF Shelving, Bell, Lo-Pass
Non-constant Q, variable, 1.4 to 1/9th octave
Classic Baxandall
12dB/octave

Compressor
Sidechain
Sidechain Lo-Cut Filter
Sidechain Hi-Cut Filter
Threshold
Ratio
Attack
Release
Knee
Manual Types
Auto Types

Self key, In/Out, Sel 'listen'
12dB/octave, Freq 20Hz - 5kHz
12dB/octave, Freq 120Hz - 20kHz
-46dBu to 18dBu
1:1 to infinity
300us - 300ms
100ms - 2s
Soft/Hard
Peak Manual, RMS Manual
VocalAuto, OptoAuto, PunchBag
filter in/out with sel 'listen'

FX Processing

Internal FX
Types
Mode

8x RackFX engine
Reverbs, Delays, Modulators, Sub-harmonics etc.
Send>Return, Inserted, Daisy Chain FX

FX 'Short' Return Channels
Controls
FX Return PEQ

Adds to inputs for up to 56 sources to the mix
Fader, Pan, Mute, Routing to Grp, Aux, FX, Main
Same as Input Channel PEQ

Talkback
High Pass Filter
Routing

Assignable source
12dB/octave, 20Hz-2kHz
To Groups, Aux, Main, Matrix

Signal Generator
Sine, Bandpass sweep
Controls
Routing

Sine, White Noise, Pink Noise, Bandpass Noise
20-20kHz
Level, Mute
To Groups, Aux, Main, Matrix

RTA

Source
Peak Band Indication
31-Bands 1/3 octave 20-20kHz
Follows selected PAFL source
Option to display dominant frequency

GLD SPECIFICATIONS



ACCESSORIES



AH8721 120m drum of Cat5 cable

120m (393ft) drum of Cat5 with locking connectors made by Klotz. This is the most flexible Cat5 cable for mobile use on the market.



AH7000 80m Cat5 Etherflex Drum

80m (264ft) drum of Neutrik Etherflex cable with EtherCon locking connectors.



LEDLamp

LEDLamp is a variable brightness 18" gooseneck lamp.

Dustcover

Black water repellent 4oz polyester dustcover with purple piping and sewn on GLD logo

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