



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

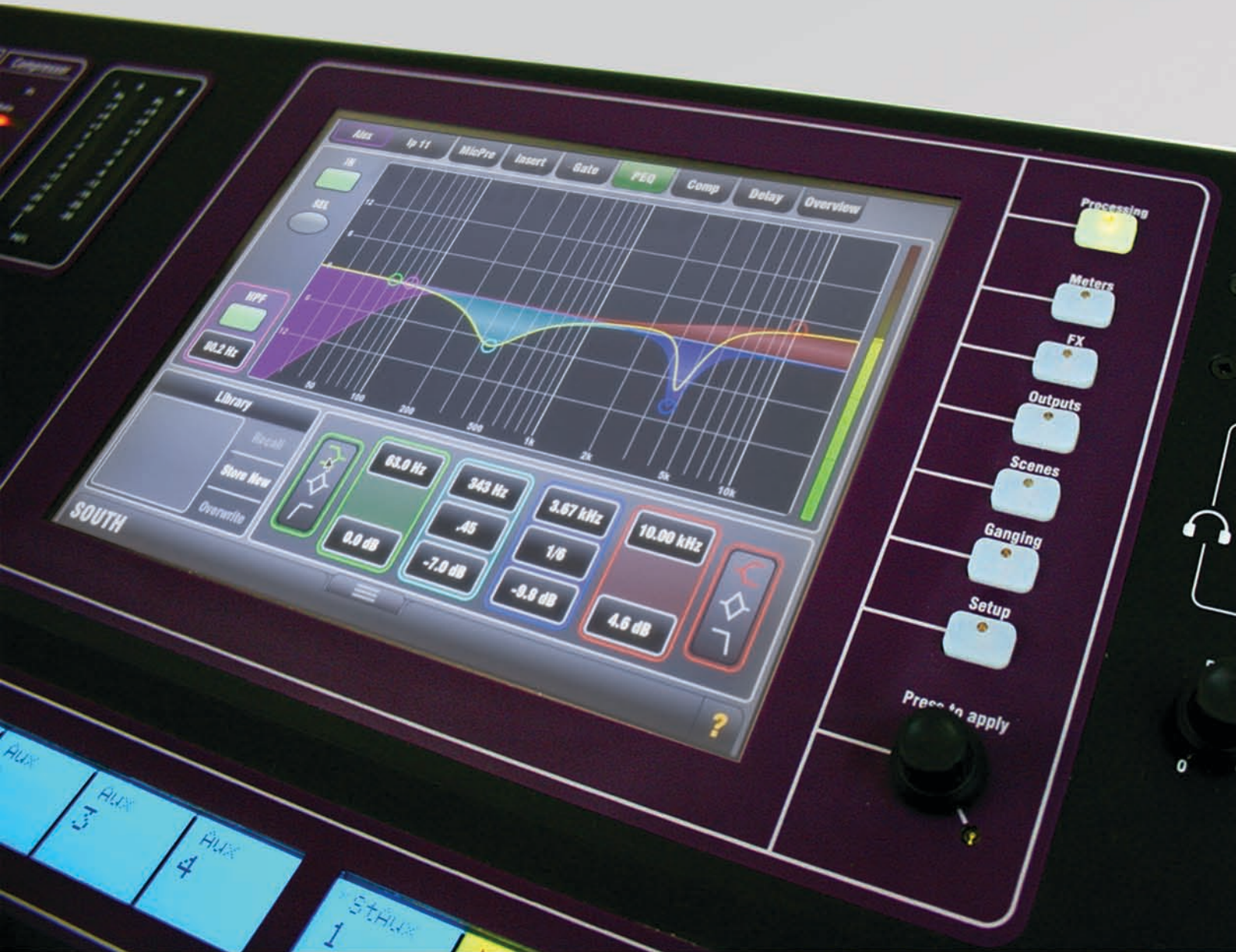
- Compact digital mixer with scalable, remote I/O
- Systems from 4 to 44 mics
- Easy to use, quick to access, analogue style interface
- dSNAKE Cat5 digital snake—up to 120m cable length
- 8.4 inch colour touchscreen for graphical view and setup
- 20 faders, 4 layers, 80 channel strips in a freely customizable 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:



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



Tap on a socket to patch an input or output channel

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.



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

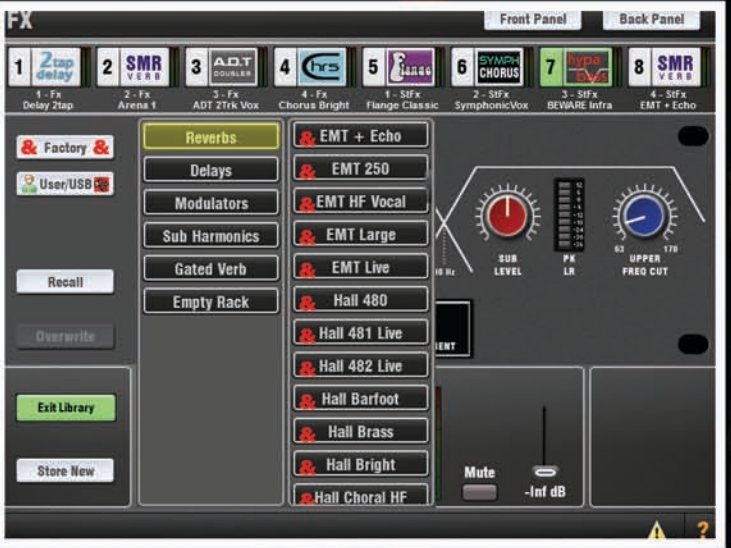
iLive Heritage

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

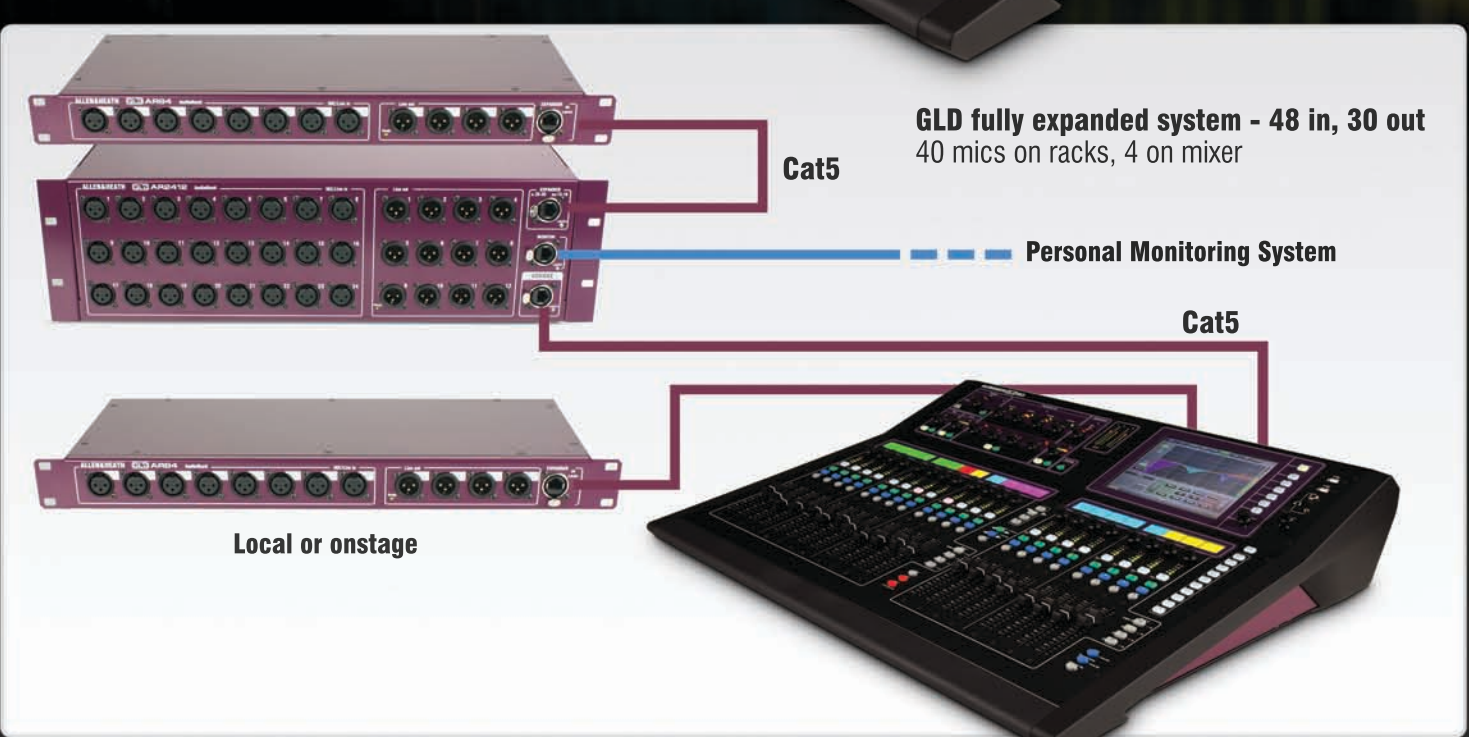
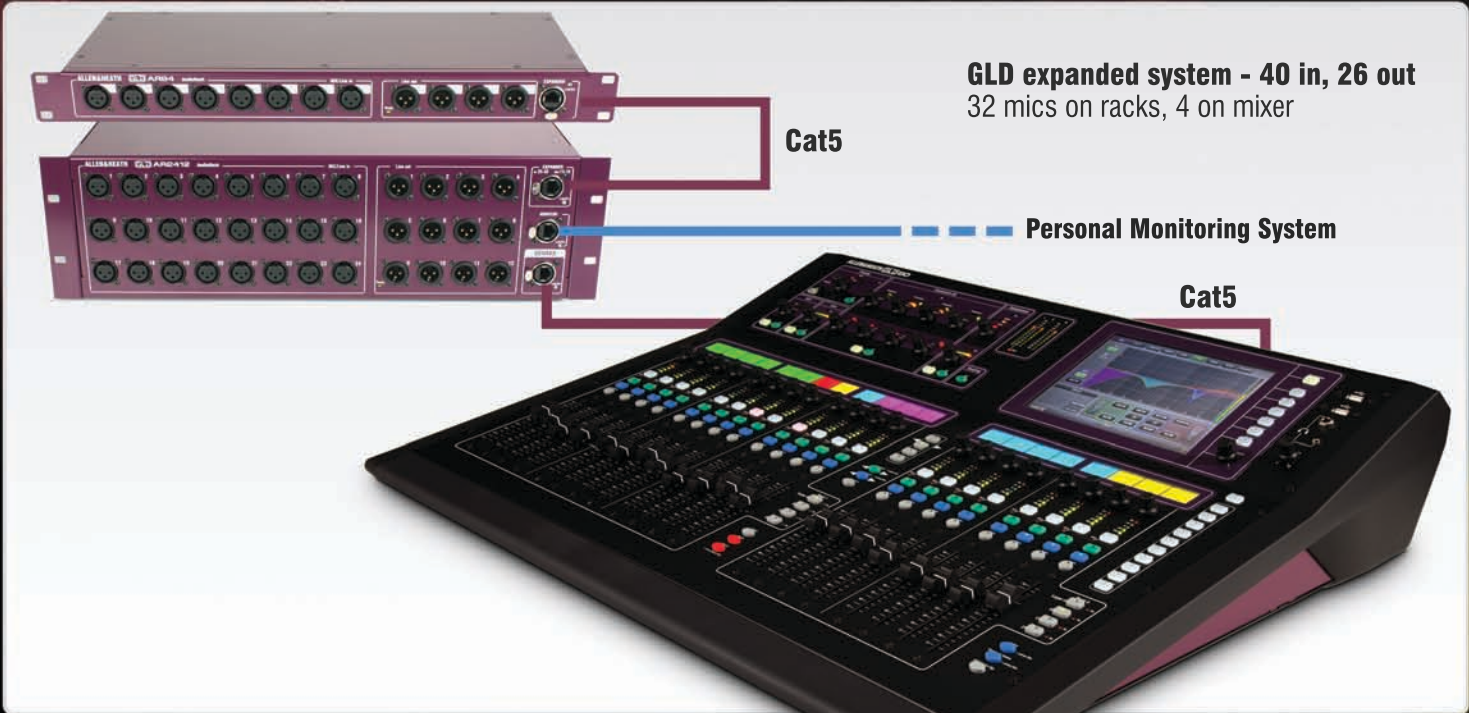
A faithful emulation of this simple to use, frequently requested classic 80's chorus. Using just two controls it produces a rich and lively chorus sound with suggestion of mild phasing. Two presets satisfy the popular live sound application - SymphonicVox and SymphonicStrings.



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.



EXPANDABLE SYSTEM WITH FLEXIBLE I/O



GLD-AR2412 AudioRack



GLD-AR84 AudioRack



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
Mic/Line Channel noise	Input Impedance
Mic EIN	Unity gain (Pad in)
	Low gain (5dB, Pad out)
	Mid gain (30dB, Pad out)
Mic/Line Channel THD+N	Unity gain (Pad in)
	Low gain (5dB, Pad out)
	Mid gain (30dB, Pad out)
RCA Line Inputs	Input Sensitivity
	Trim
	Maximum Input Level
	Input Impedance
	RCA channel Noise
	RCA channel THD + N

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

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

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

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

Outputs

XLR Outputs	Output Impedance
	Nominal Output
	Maximum Output Level
	Residual Output Noise
RCA Line Outputs	Output Impedance
	Nominal Output
	Maximum Output Level
	Residual Output Noise
Digital Outputs	
SPDIF	
AES3 2 ch XLR output	

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

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

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

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

Mono = 1-44, Stereo = 45/46, 47/48
+/-24dB digital trim
Normal/Reverse
12dB/octave 20Hz – 2kHz
Assign to any sockets, In/Out, +4dBu/-10dBV level

Up to 85ms
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

4-Band fully parametric, +/-15dB
Global setting for Inputs = 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	
Lo-Cut Filter	
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

System

Measured balanced XLR in to XLR out, 20-20kHz, minimum Gain, Pad out	
Dynamic Range	112dB
	-90dB
	0/-0.25dB @ 20Hz, 0/-0.5dB @ 20kHz
	0.0055% -68dBu @ +17dBu output, 1kHz
	0.0022%, -84dBu @ +9dBu output, 1kHz
System Signal to Noise	+18dB
	0dBu
	+18dBu = 0dBFS (+22dBu at XLR output)
	0dB meter = -18dBFS (+4dBu at XLR out)
	-3dBFS (+19dBu at XLR out)
Internal operating Level	Fast (peak) response
	48kHz +/-100PPM
	24-bit Delta-Sigma
	24-bit Delta-Sigma
	1.49ms (GLD-80 local XLR in to XLR out)
Meter Calibration	0.68ms (GLD-80 local XLR in to digital out)
	2 channel, WAV, MP3, M4A, FLAC
	2 channel, 44.1kHz / 16bit - WAV
	64 channel bi-directional
	A&H ACE, MADI, Dante, ES, Waves, MMO
Meter Peak Indication	
Sampling Rate	
ADC	
DAC	
Latency	
USB Playback	
USB Record	
I/O Port	
Card Options	
Operating Temperature Range	

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
GLD-AR2412 AudioRack	Unpacked
	Packed in shipping box
	Unpacked weight
GLD-AR84 AudioRack	Unpacked
	Packed in shipping box
	Unpacked 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)

Width x Depth x Height
483 x 220 x 137mm (19" x 8.6" x 5.4")
600 x 350 x 250mm (23.6" x 13.7" x 9.8")
5kg (11lbs)
6.4kg (14lbs)

Width x Depth x Height
483 x 220 x 48mm (19" x 8.6" x 1.9")
600 x 330 x 143mm (23.6" x 12.9" x 5.6")
3kg (6.6lbs)
4.4kg (9.7lbs)

Mix Processing

20 Mix Processing Channels	
External Input	
Trim	
Polarity	
Insert	
Delay	
GEQ	
Type	
Gain	
GEQ Fader Flip Mode	

Configure as mono/stereo Groups, Aux, Main, Matrix
Mains = None, LR, LCR, LR+M(bus), LR+M(sum)

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

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

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

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

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

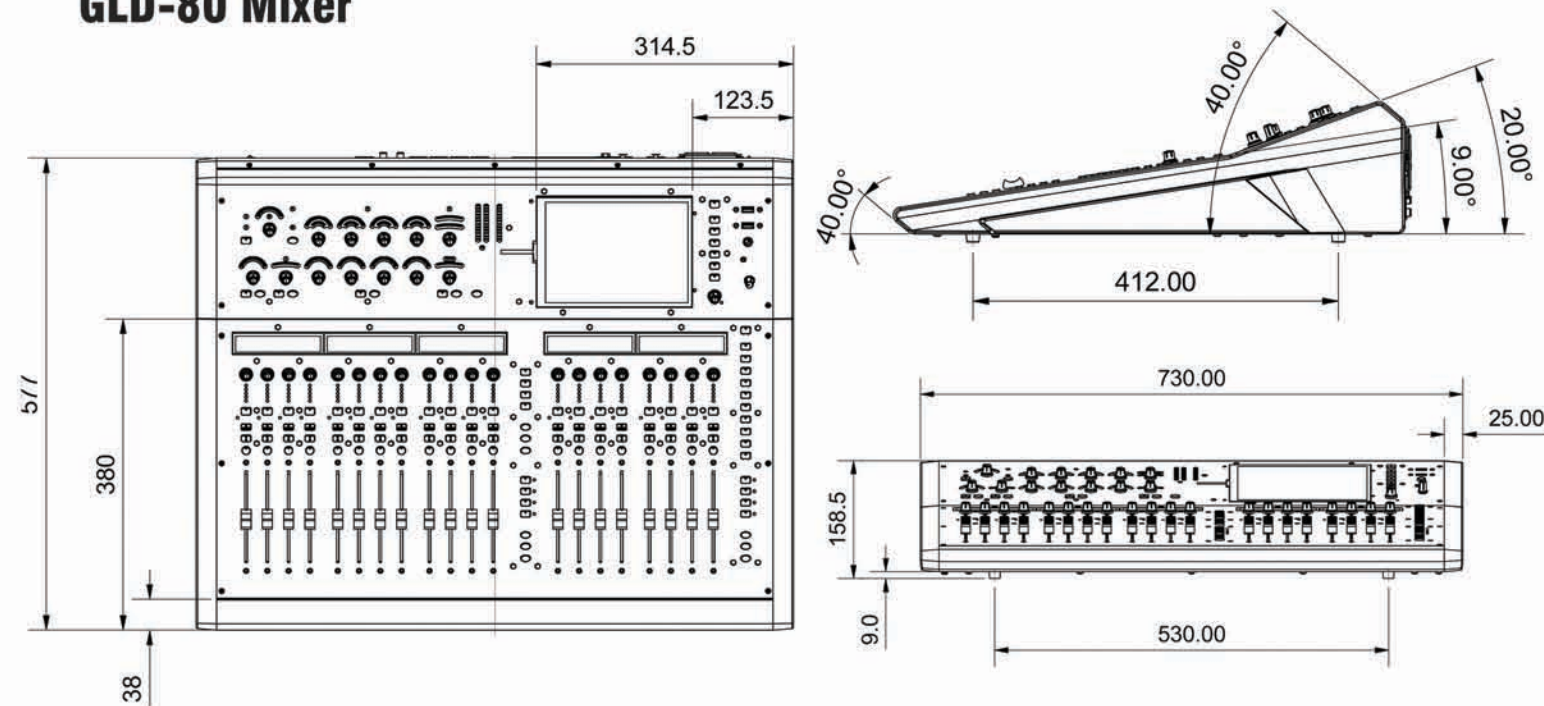
Self key, In/Out, Sel 'listen'
12dB/octave, Freq 20Hz – 5kHz
12dB/octave, Freq 120Hz – 20kHz
-46dBu to 18dBu
1:1 to infinity
300us – 300ms
100ms – 2s
Soft/Hard
Peak Manual, RMS Manual
VocalAuto, OptoAuto, PunchBag
filter in/out with sel 'listen'

FX Processing

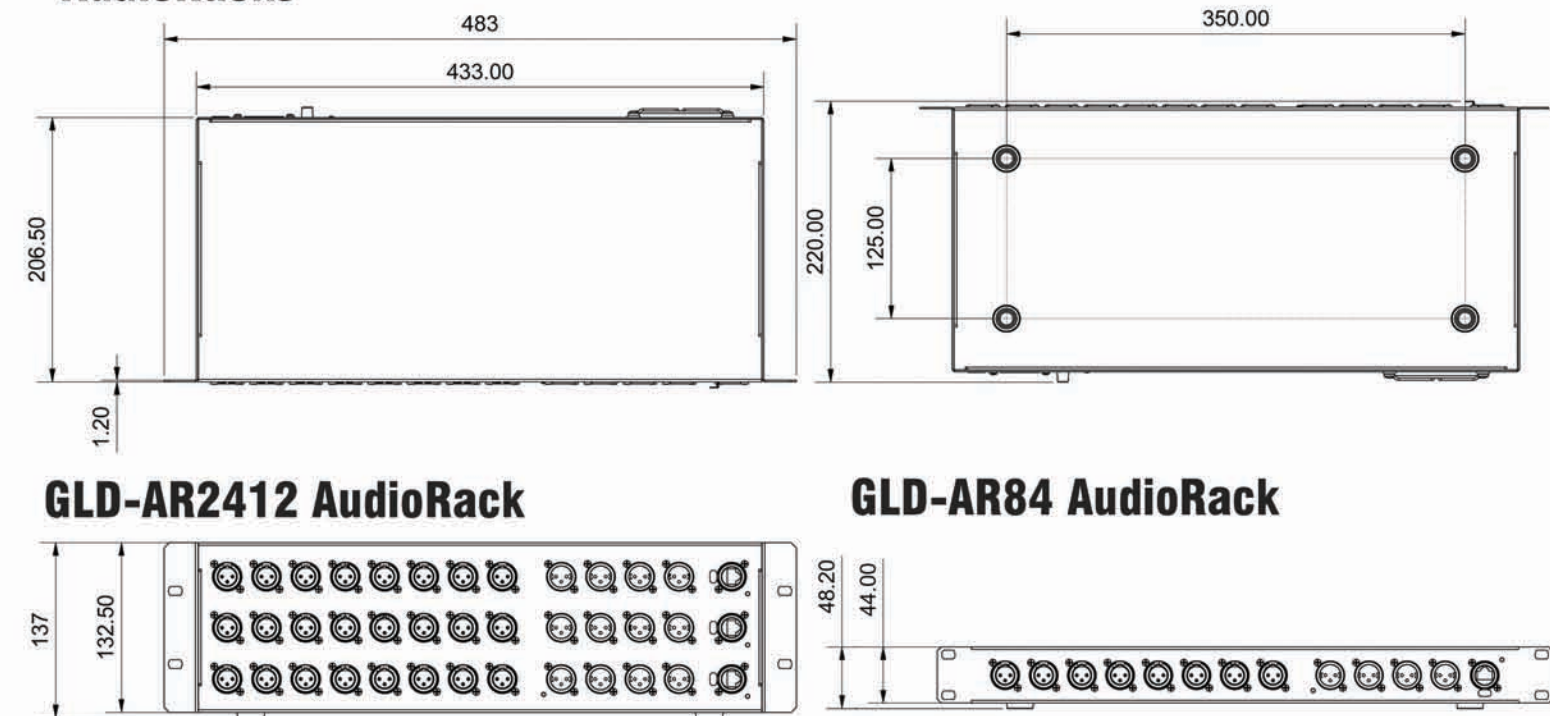
Internal FX	
Types	
Mode	
FX 'Short' Return Channels	
Controls	
Talkback	
High Pass Filter	
Routing	
Signal Generator	
Sine, Bandpass sweep	
Controls	
Routing	
RTA	
Source	
Peak Band Indication	

DIMENSIONS AND SYSTEM BLOCK DIAGRAM

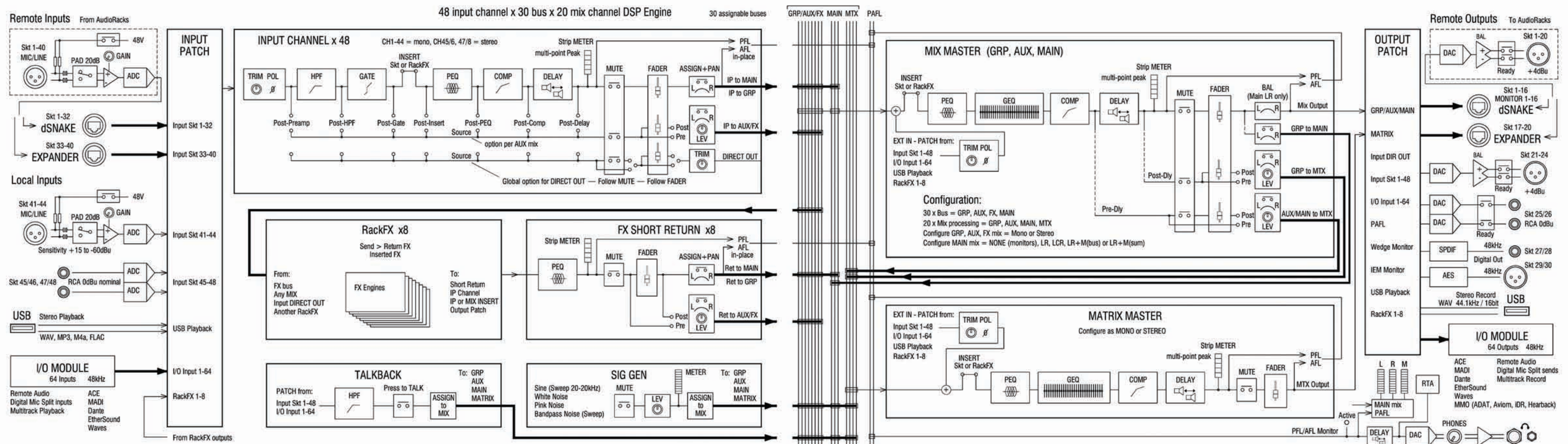
GLD-80 Mixer



AudioRacks



System Block Diagram





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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