



REALISM, DENSITY & PROXIMITY

About Us :

GC Audio is a French designer and manufacturer of high-end products dedicated to sound engineers. Guillaume Chauvet, the brand's electronic designer, is an electronics engineer with 15 years of experience in the field of low frequency processing.

Each product is designed to obtain an uncompromising result that inspires, Realism, Density and a feeling of proximity.

Products :

GC Audio Inherit series :



The GC-Audio Inherit is the first interchangeable cartridge preamplifier on the market.

Finalist for Namm Tec Awards 2022.

The GC-Audio Inherit system is an innovative audio device that allows you to have many models of preamplifiers within a single 19" rack.

It's « Hot Plug » design allows users to test a wide range of characteristic sounds.

Unlike other modular formats it allows the implementation of high-voltage or high-current multiple-voltage preamplification technologies.

In addition, the absence of space constraints and the best EMC environment allow less compromise in electronic designs. This results in better audio quality.

The Inherit system will therefore give you access to complex preamps such as true tube preamplifiers or complex discrete design that are impossible to get on a lunchbox.

It is a premium device specialized in sound recording for sound engineers who want an uncompromising result.

It also allows you to quickly test various preamplification technologies without a patchbay.

The rack's custom power supply has been designed with great care and contains 7 unique voltages which are generated by three toroidal wire transformers.

All functions are analog but digitally controlled in a well shielded construction in order to protect the signal path.

This allows each cartridge to supply its unique and unadulterated sound.

During a take, users can quickly and easily compare e.g., the sharpness of a transistor preamp with the warmth of a real tube preamp without a patchbay.

Some cartridges are designed around proven technologies that are part of recording studio standards and others are designed from new technologies exclusive to the Inherit system.

For proven technologies, numerous improvements have been made to achieve a high signal to noise ratio while maintaining the original behavior and tonal color.

Currently these seven cartridges are available (More cartridges will be released soon) :

- **RE-73** : Class A preamp, unbalancing & balancing by Original Carnhill Transformer
- **RE-98** : Class A differential preamp, ultra low noise discrete components, balancing by Lundahl Transformer.
- **RE-4K** : unbalancing by an Original Jensen 115 transformer, preamplification and balancing by an Ultra low noise Operational Amplifier.
- **Tube Heat** : True Tube High voltage preamplifier, unbalancing and balancing by transformer, no discrete component in the signal path.
- **RE-15** : Class A differential preamp, unbalancing and balancing by an ultra low noise Operational Amplifier.
- **RE-VR** : unbalancing by an Original TF10015 reissue, preamplification and balancing by an Ultra low noise Operational Amplifier.
- **Graham Langley signature** : The synoptic is a premium differential preamp composed of paired transistors and constant current sources.



Why the GC Audio Inherit ?

Lunchboxes are able to give you access to several good preamps but the limited power supply and size requires electronic compromise which affects the quality of the sound.

Also the shielding is not always of very good quality.

The Inherit system provided a premium multiple power supply and a very good shield environment.

It is intended for demanding sound engineers who want uncompromising sound recording.

Also the Inherit system is a different and more practical modular format specialized in preamplification.

Although it is primarily dedicated to recording studios, its rugged construction allows for heavy touring use for recording engineers who want to use different sound colors without carrying multiple racks.

In the quest for "big sound", a connoted term we've all used at least once in a mix, we get lost a little too quickly in dynamic and tonal correction. A sound that deserves correction from the start deserves, above all, a new take. From an electronic point of view, a "big sound" is above all a frequency signal rich in harmonics, and above all having very good output current source. The notion of "good sound" has a part of subjectivity: it is above all what we are looking for. It is therefore important to be able to quickly test several technologies to obtain the desired result. Consequently, for a warm sound, rich in harmonics, a tube cartridge with transformer balancing is preferred, and for a very flat and precise sound, a transistor cartridge with OA balancing is preferred ... Many combinations are possible and the GC Audio Inherit will give you easy access to many high end preamps.

In an audio chain, the preamplifier is placed just before digital conversion. It is therefore by definition analog and not emulable.

It is the main element for a good sound recording.

The GC-Audio Inherit was developed to deliver uncompromising audio quality with the goal of upgrading proven designs while exploiting new technologies.

The function of preamps is to process weak signals, so they are very sensitive to electromagnetic interference.

The proprietary Inherit format keeps the sensitive part of the electronic design in a one-piece machined cartridge that serves as a Faraday cage. The performance of electromagnetic shielding is optimal and the concept allows great convenience for the user.



Overview by Graham Langley:

"When I first discovered the GC Audio "Inherit" system I was impressed by the innovative concept of interchangeable microphone amplifier cartridges allowing customers the flexibility and freedom of choice to enhance their creativity.

The thought that had gone into the design and the build quality of the product also appealed to me. I was therefore honoured when invited to contribute a "Langley" microphone amplifier cartridge design.

I designed a custom preamp to completely match the capabilities of the Inherit System.

The circuit is reminiscent of the topology that I used in Amek console microphone amplifier designs in the 1970s and 80s but with significant improvements, particularly in noise performance. This cartridge is intended to provide a clean, transparent sound over the full audio frequency spectrum.

I hope you enjoy using this addition to your "Inherit" cartridge collection."

Langley

Graham Langley

Langley Signature cartridge :



RE-73 cartridge :



RE-4K cartridge :



RE-15 cartridge :



RE-98 cartridge :



RE-VR cartridge :



Tube Heat cartridge :



.....More cartridges will be released soon.

GC Audio 500 Series :

Realism Preamp :



The GC Audio Realism Preamp is a complete mic/instrument preamplifier with a front panel combo input. It is designed around a class A differential preamplifier composed of ultra low noise SSM 2212 paired transistors. Each follower OPAs is an OPA1612 which is among the quietest on the market. Great care has been taken in the choice of capacitors. Each coupling and decoupling link is optimized for an impulse response. Low values are ensured by Wima plastics and higher values by Nichicon Long Life low ESR electrolytic. The output-balancing stage consists of a Lundahl high level output transformer preceded by a solid low output impedance current generator stage. The minimal uH generated naturally by the transformer's output coil bring presence and a feeling of proximity. No sound comes through the front panel switches : each switch drives gold contact mechanical relays or ultra low R-On solid state relays. The result is a very quiet preamplifier, with great realism in the highs and flawless reproduction of the sharpest transients.



Technical data :

- Micro / instrument preamplifier
- Combo xlr / jack front input
- Gain : 0 – 66 dB / 12 Steps.
- Pad -20 dB / +48V / Inv phase
- Front / Rear switching
- 10 led Vu meter
- Output level pot
- High Pass 120Hz
- Z Mic input = 5K, Z instru input = 200K
- EIN (Equivalent input noise) = -130,86dBu / -133,07dBv at 60db gain, 20Hz / 20Khz.

Density Compressor :



The GC Audio Density compressor is a complete VCA Compressor. The de-symmetrization stage consists of a Lundahl transformer, which remains to this day the only way to perform common mode rejection without adding distortion. The follower OPA are ultra low noise AD797s recommended by That Corporation for optimal operation of the VCA.

Great care has been taken in the choice of capacitors. Each coupling and decoupling link is optimized for an specific impulse response. The low values are ensured by Wima plastics and the higher values by Nichicon Long Life low ESR electrolytic.

The output balancing stage consists of a Lundahl high level Output transformer preceded by a solid low output impedance current generator stage.

The minimal uH generated naturally by the transformer's output coil bring density and a feeling of proximity.

No sound comes through the front panel switches, each switch drives gold contact mechanical relays or ultra low R-On solid state relays.

The result is a responsive, quiet compressor with lots of character.



Technical data :

- Threshold : -30dB / +10dB.
- Ratio : 1 / 20
- Attack : 0.1ms / 15ms
- Release : 1.5ms / 150ms
- Output gain : -20dB / +20dB
- HP filter side chain : 20Hz / 200Hz
- Auto time setting / Brickwall limiter
- Knee setting
- THD + N @ Gain Max = 0.1%
- EIN (Equivalent Input Noise) = -106 dBu @ gain max (150 Input Load – 20Hz/20Khz)

RACK 500 / 10 SLOTS :



The GC Audio 500 Rack is a 10 slots docking rack for modules in 500 format.
Its ultra low noise medical standard power supply ensures reliability and quality.

- > An exclusive timed power on by relay allow to avoid inrush current wich are high on ten slots racks.
- > 10 Combo XLR / jacks balance IN.
- > 10 XLR & 10 jacks balance OUT.



GC Audio 2022



Designed & made in France