



GC Audio 500 Density Compressor User Guide

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Thank you for purchasing the Density Compressor.
We hope you have as much fun using it as we had designing it !

Warning : When you remove the module from an 500 rack, never pull on the electronic card, always pull from the front face.

The GC Audio Density compressor is a complete VCA Compressor.

The balancing and unbalancing stage consists of Lundhal transformers which remains to this day the only way to perform common mode rejection without adding distortion. The follower OPA have been chosen 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 impulse response. The low values are ensured by Wima plastics and the higher values by Long Life low ESR electrolytic.

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

The few uH generated naturally by the output coil of the transformer brings density and a feeling of proximity.

No sound goes 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.

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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 with « brick wall » limiter curve
- Knee setting

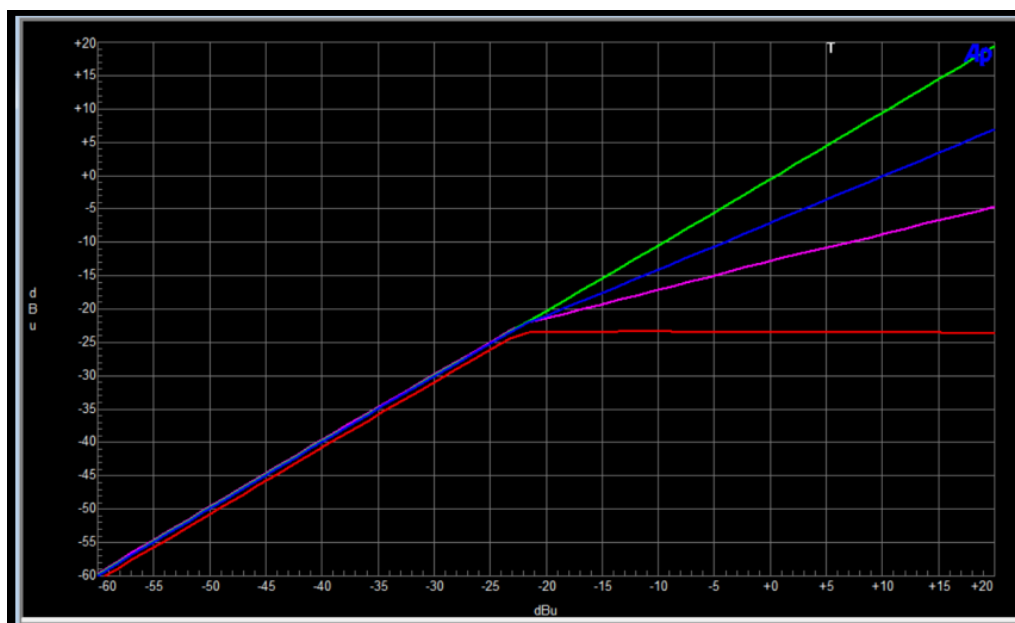
All measurements are made with Audio Precision device, Z input = 100K Ohms :

THD + N @ max gain = 0.05%

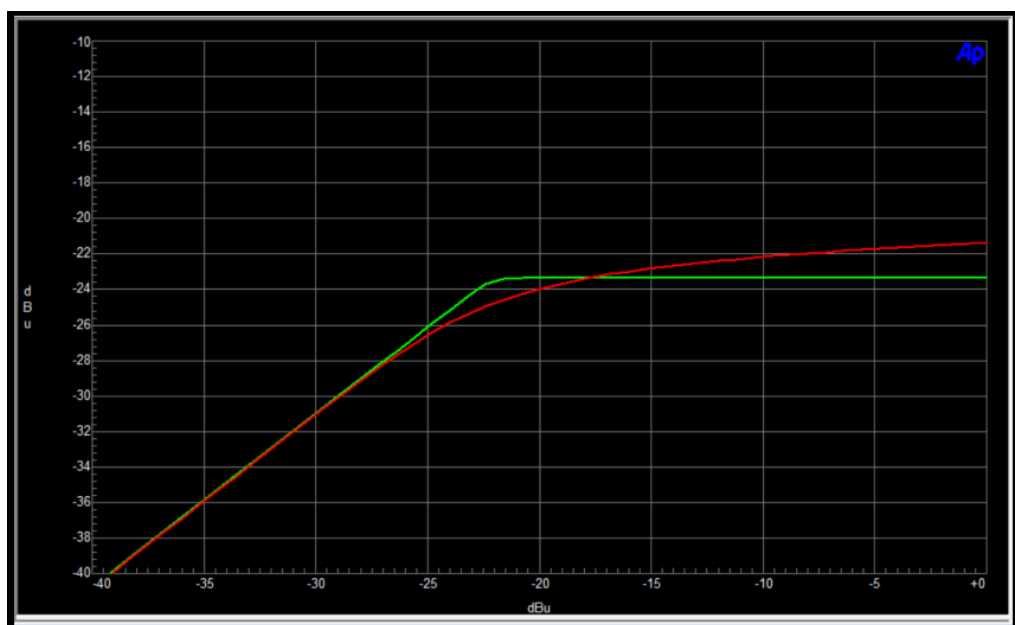
Noise = -81 dBu @ max gain (150 Input Load – 20Hz/20Khz)

Graph

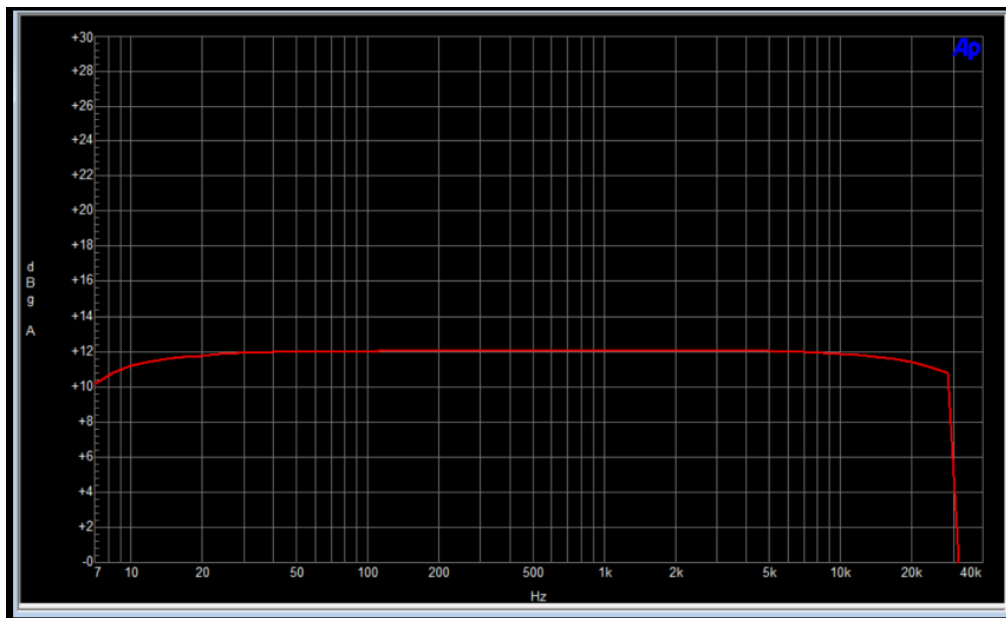
Curve :



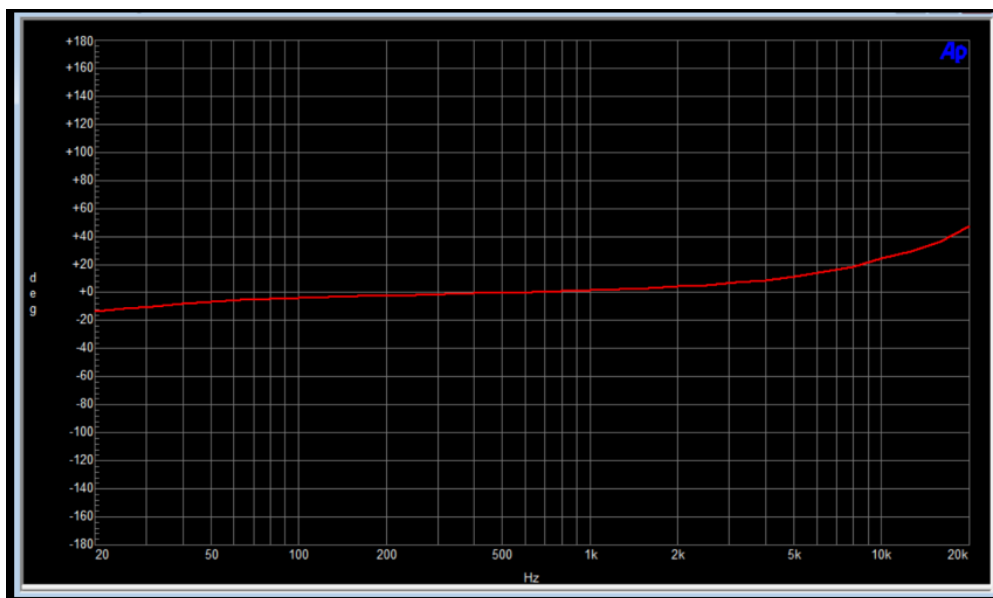
Knee (With Auto Time in « Brick wall » Limiter):



Frequency Response :

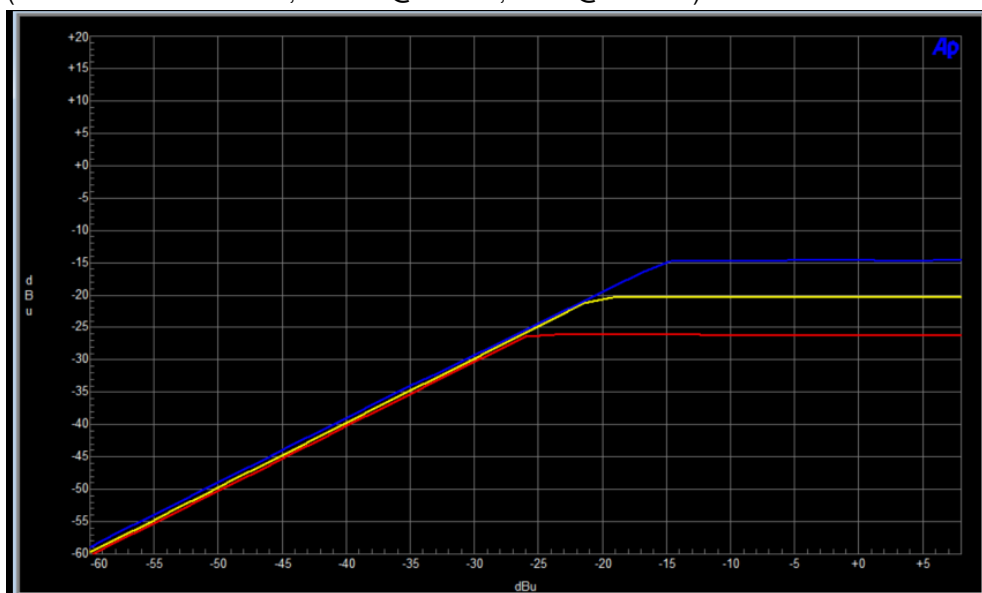


Phase:

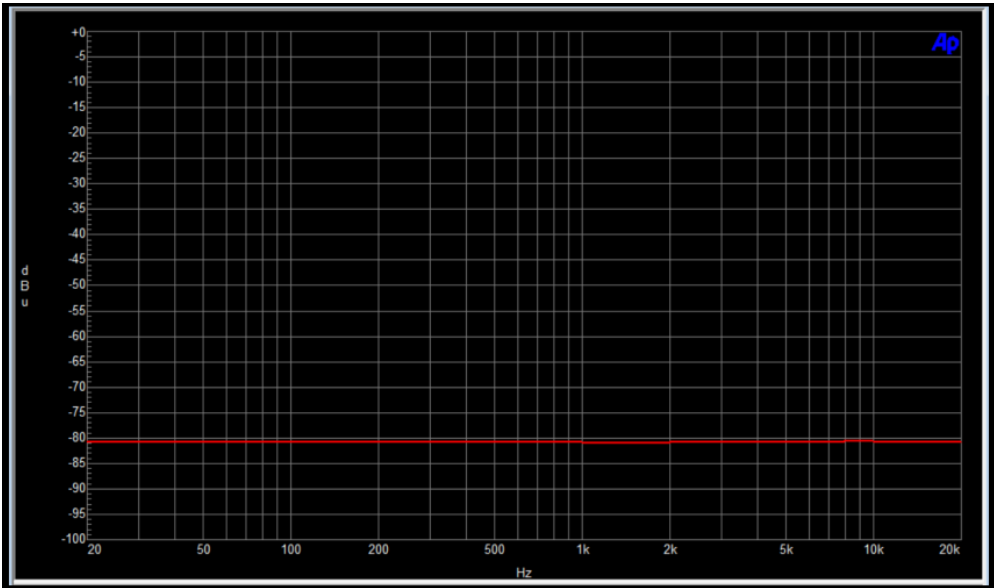


Curve with Side Chain Filter :


(Red without side chain, Yellow @ 100hz, Blue @ 200hz.)



Noise @ gain Max :



Documents / Resources

	<p>GC Audio 500 Density Compressor [pdf] User Guide 500 Density Compressor, 500, Density Compressor, Compressor</p>
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References

- [User Manual](#)