



Mic Preamp Comparison

All measurements were made with SoundCheck. A software based test and measurement system made by Listen, Inc. www.listeninc.com

All mic preamps were set to an output level of 0 dB V with an input of 143mVolts.

Sound card output impedance of 600 Ohms driving the mic input.

Disregard the failure of Overall Noise Level. This is an arbitrary value and was only included for the sake of comparison. The Failure indicator means nothing.

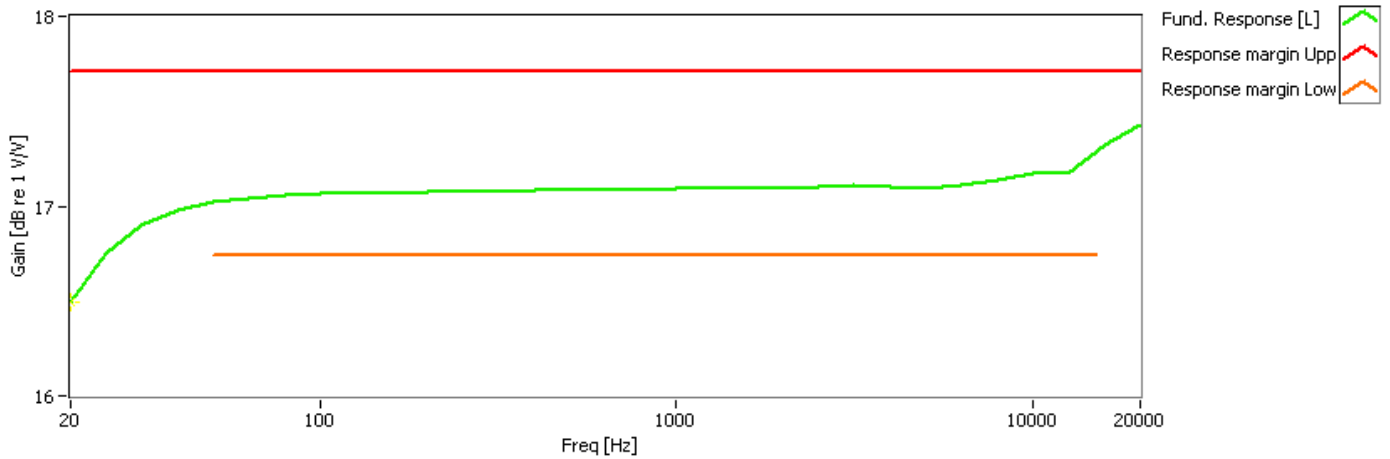
Tests were performed by Mark Dailey at e. dagener productions, Avon, MA and at Raving Crow Studios, Brookline, MA.

Thanks again to Greg Ciccolo for the use of his studio and collection of preamps.

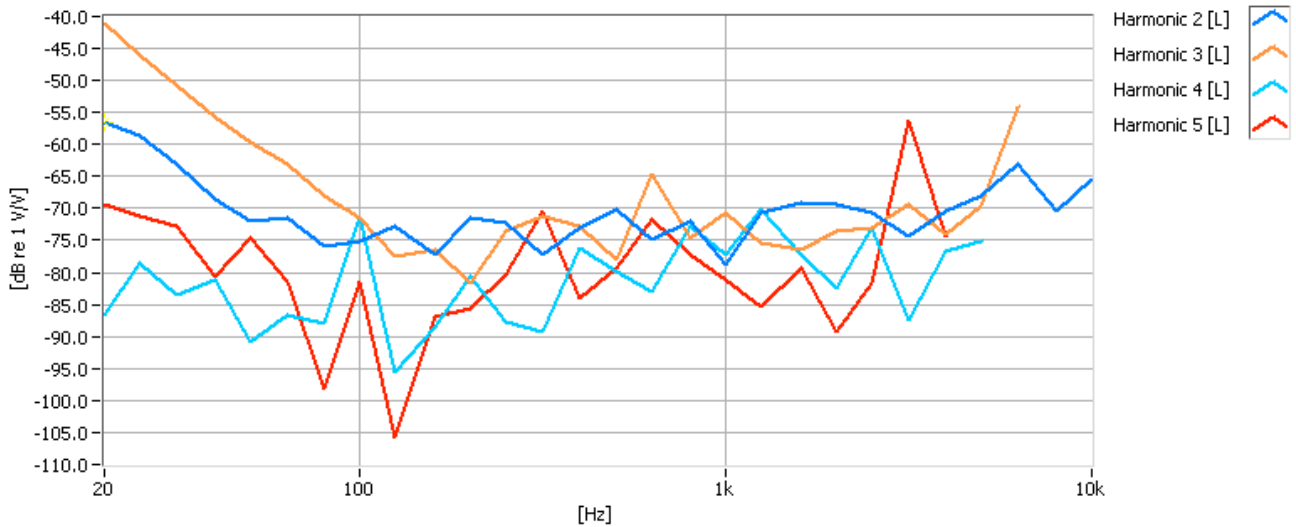
Please send any comments or questions to studio@edagener.com.

Eureka by Presonus

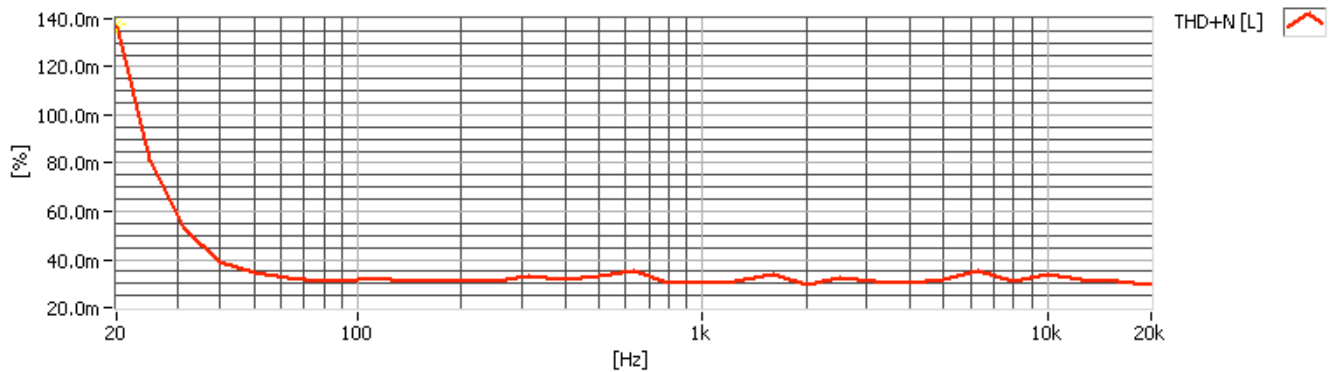
Freq Resp



Harmonics



THD + N



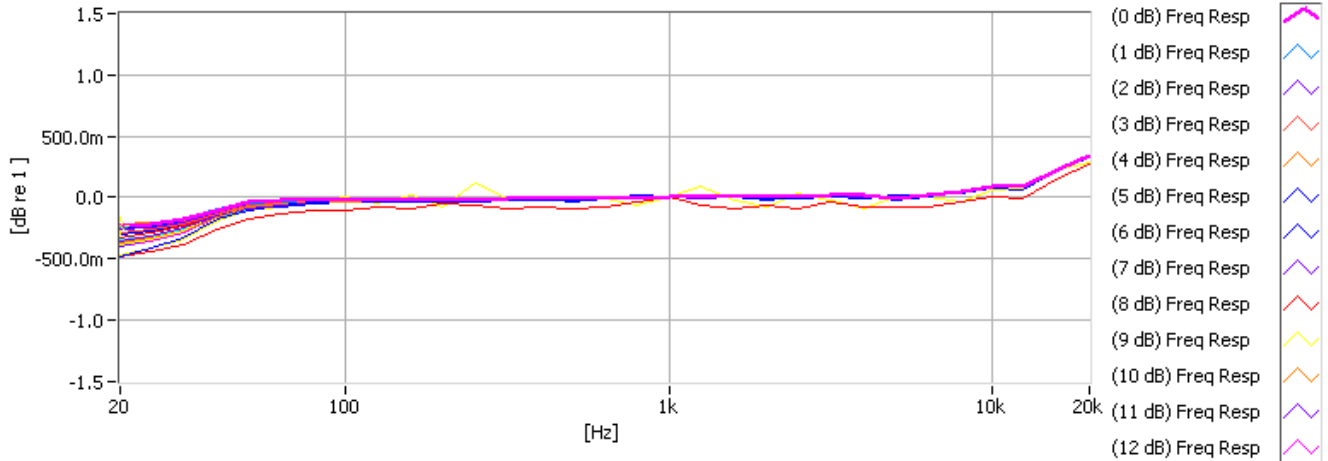
Results 1

Gain at 1kHz	17.1 dB	Passed
Overall Noise Level [L]	-55.5 dB	Failed
Max THD+N [L]	100m %	Passed
Response margin [L]	300m dB	Passed

Eureka by Presonus

Multitone stimulus - Gain steps of 1 dBV. All responses normalized to 0 dB at 1kHz.

FR Normalized



Levels

Start Stim Level Y [dB re 1 V]	-30	
Stimulus Level 1 Y [dB re 1 V]	-13	
Non-Coherent Distortion [L] Me Y [%]	307.272r	

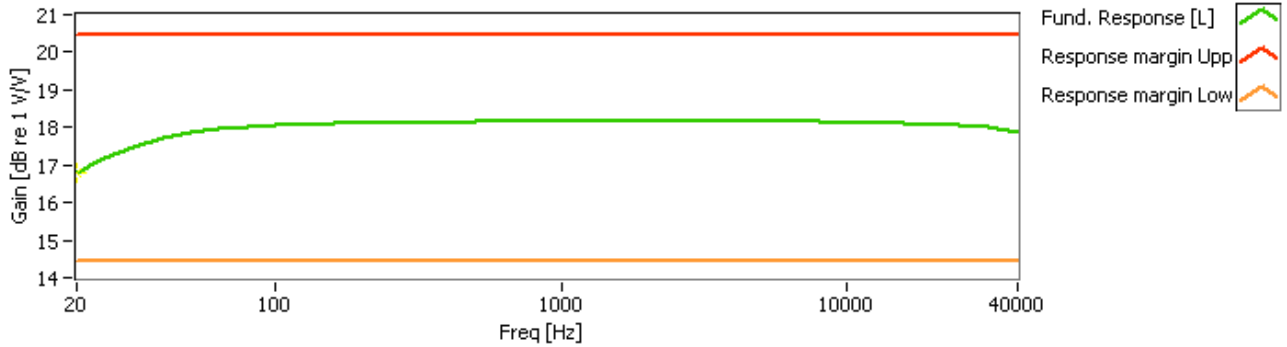


Results

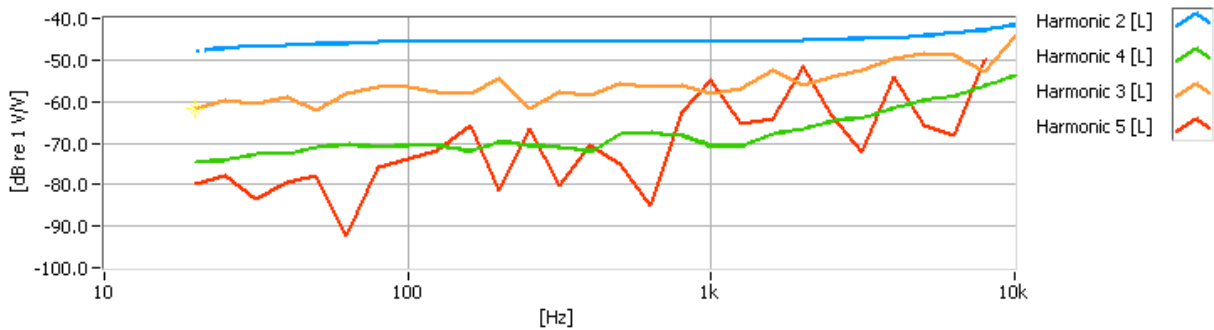
Flat curves, low noise and good consistency over a wide input range.
A good sounding Solid State preamp.

HHB Radius 40

Freq Resp



Harmonics



Results 1

Gain at 1kHz	18.2 dB	Passed
Overall Noise Level [L]	-75.9 dB	Passed
Max THD+N [L]	200m %	Passed
Response margin [L]	2.3 dB	Passed



Results

(Note: Some of the test graphics were garbled so they were deleted to prevent confusion.)

The HHB Radius 40 is essentially a “re-branded” TL Audio 5051.

Very good 2nd order harmonic vs. 3rd thru 5th levels. A really surprising frequency response.

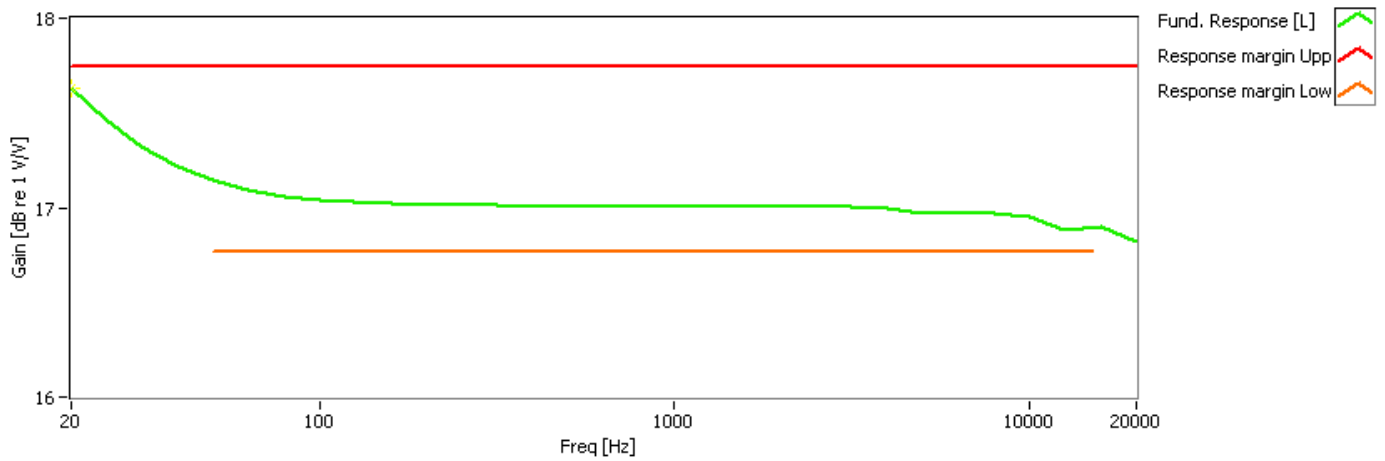
These measurement curves were made with the stock, Tungstram 12AX7 tube.

A great sounding preamp overall.

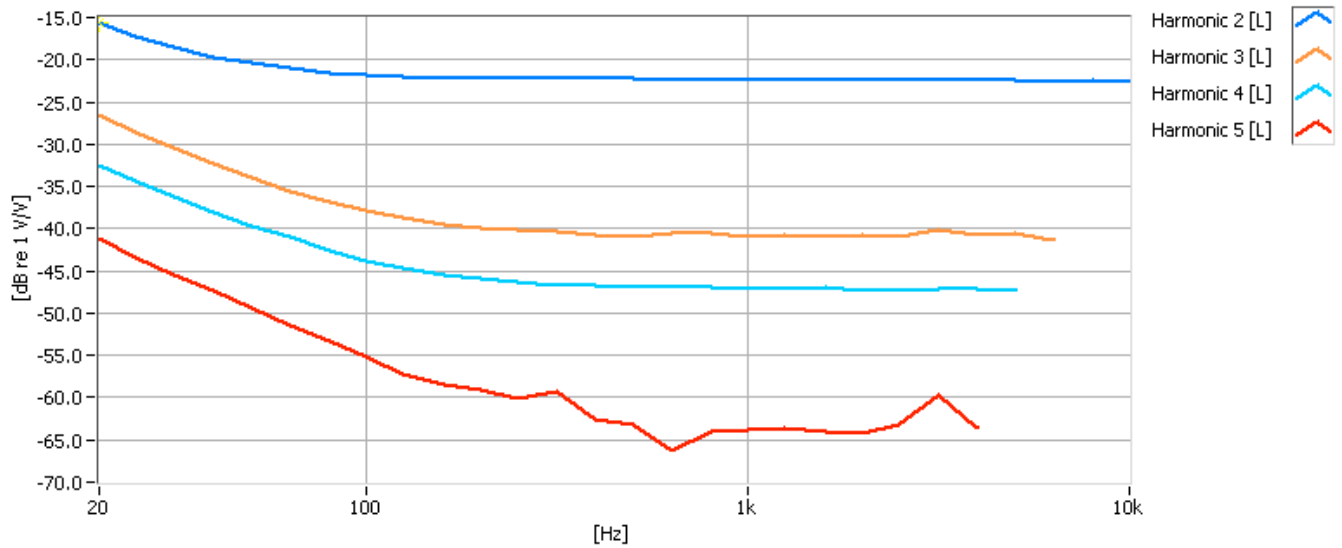
I bought it on the spot. It is now a workhorse preamp in my studio and has JAN GE 12AX7WA tubes in all three positions. Changing the tube made it sound even better.

Tube MP Studio by ART

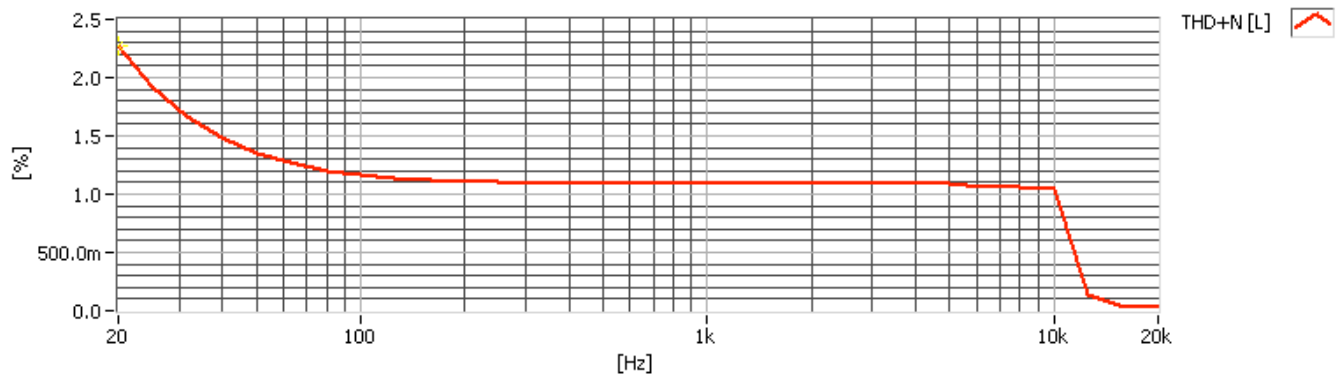
Freq Resp



Harmonics



THD + N



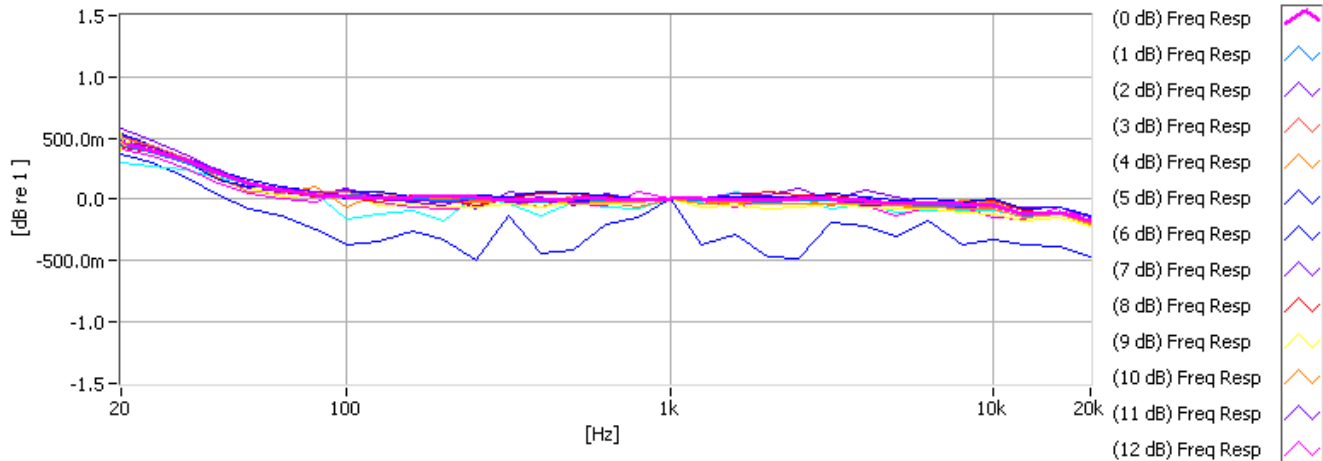
Results 1

Gain at 1kHz	17 dB	Passed
Overall Noise Level [L]	-70.6 dB	Passed
Max THD+N [L]	2.3 %	Failed
Response margin [L]	100m dB	Passed

Tube MP Studio by ART

Multitone stimulus - Gain steps of 1 dBV. All responses normalized to 0 dB at 1kHz.

FR Normalized



Levels

Start Stim Level Y [dB re 1 V]	-30	
Stimulus Level 1 Y [dB re 1 V]	-16	
Non-Coherent Distortion [L] Me Y [%]	611.833m	
MPD Dist. Coef	5.00000	

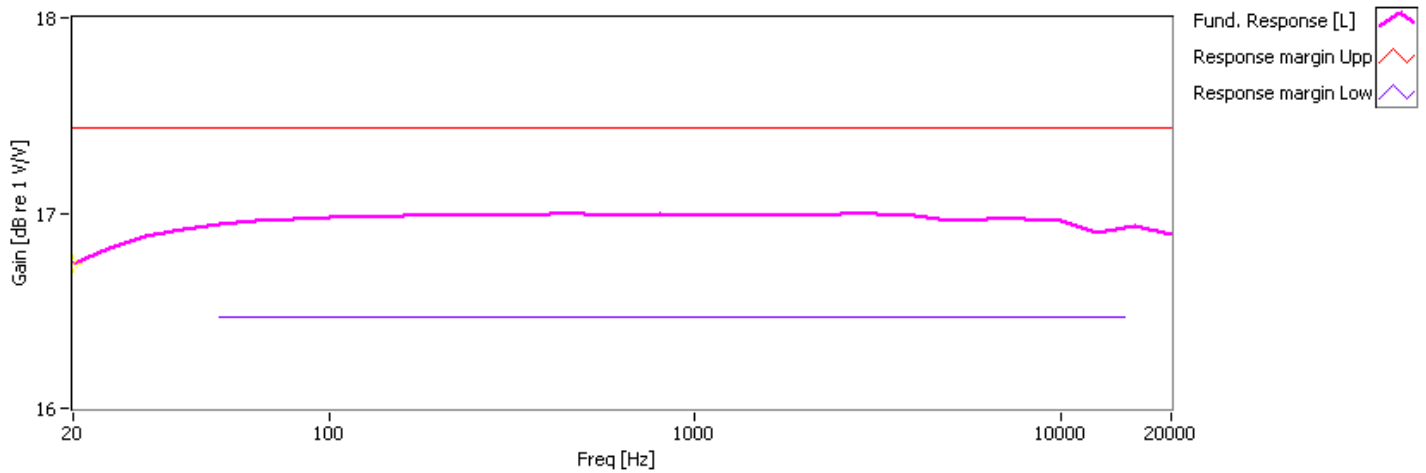


Results

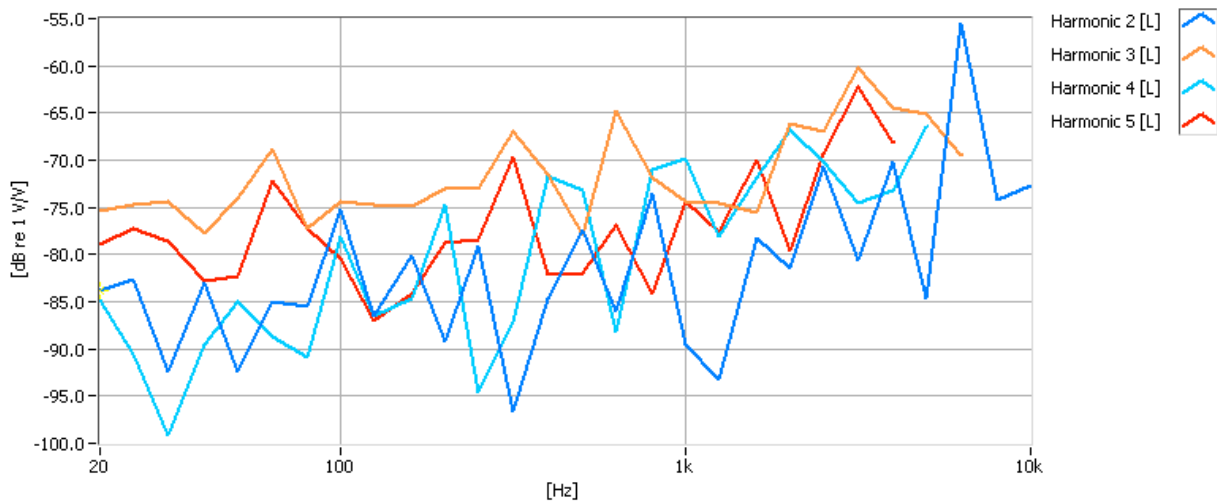
The least expensive tube preamp that we could find. (Just had to try it.)
 Great frequency response. Great 2nd order harmonic level vs. 3rd thru 5th.
 The stock tube was thrown out as soon as we got it. A vintage Mullard 12AX7 was put in.
 In this case, the tube made all the difference on the sound and measurements, even though many say the "Starved Plate" design makes the tube irrelevant.
 Not great for microphones but bass players love to use this thing for a DI.

Symetrix 302

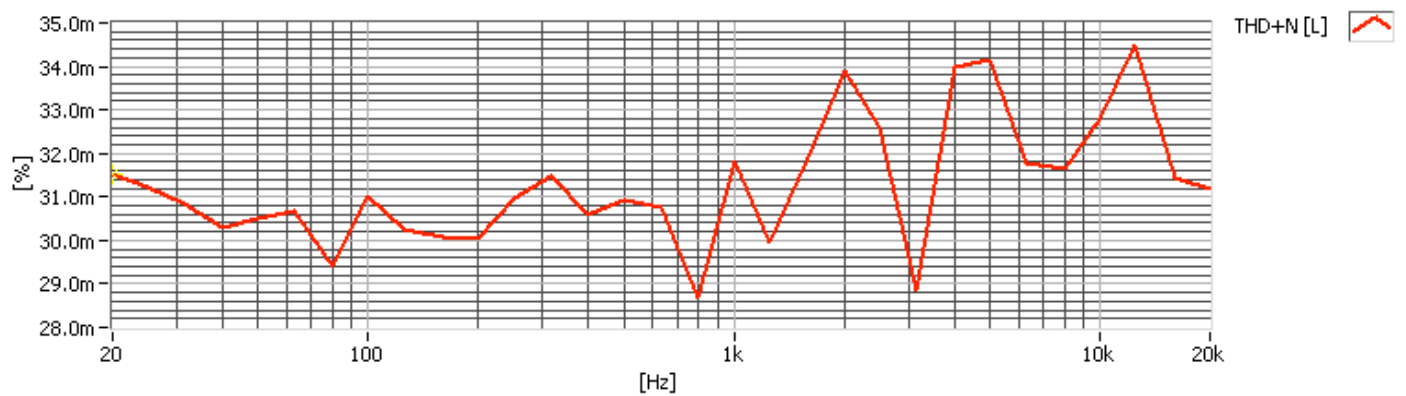
Freq Resp



Harmonics



THD + N



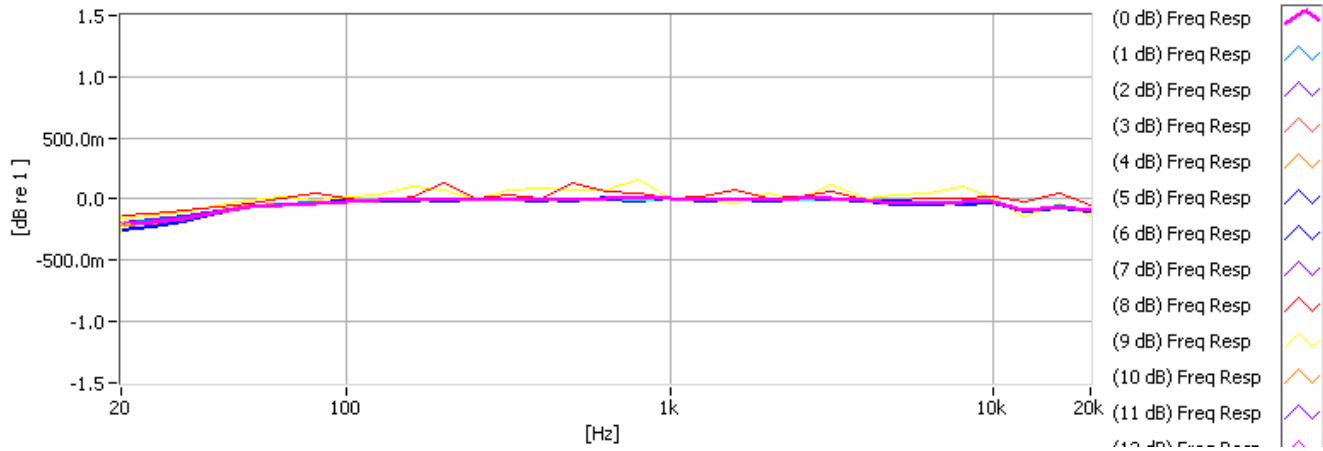
Results 1

Gain at 1kHz	17 dB	Passed
Overall Noise Level [L]	-53.5 dB	Failed
Max THD+N [L]	0 %	Passed
Response margin [L]	400m dB	Passed

Symetrix 302

Multitone stimulus - Gain steps of 1 dBV. All responses normalized to 0 dB at 1kHz.

FR Normalized



Levels

Start Stim Level Y [dB re 1 V]	-30	
Stimulus Level 1 Y [dB re 1 V]	-13	
Non-Coherent Distortion [L] Me Y [%]	375.485m	



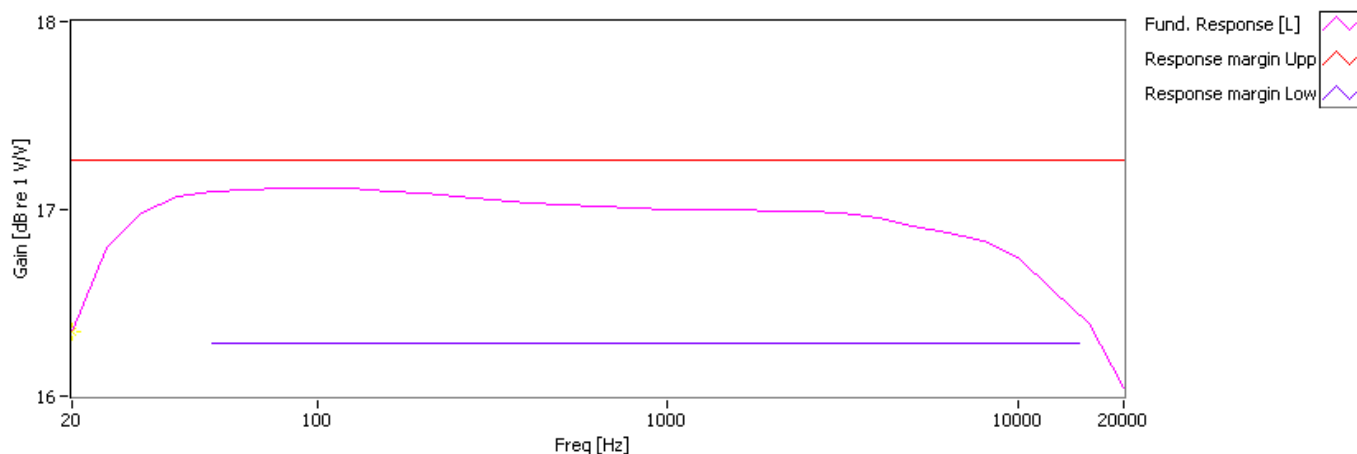
Results

Really flat. Really clean sounding. (From my personal studio)

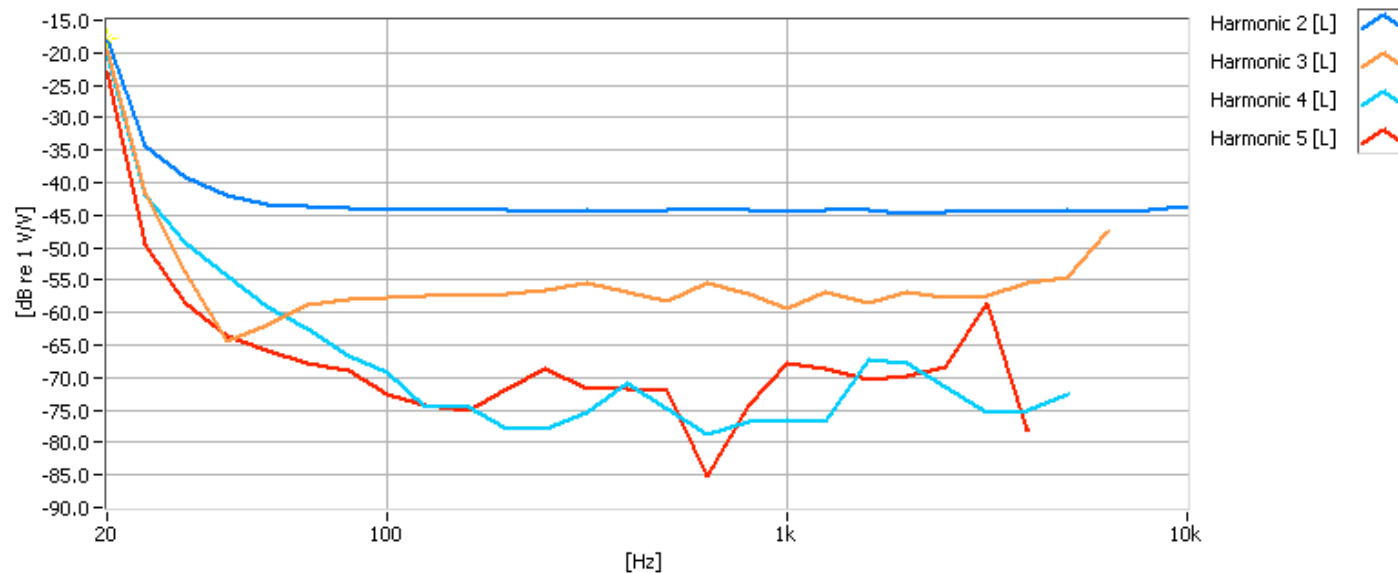
Lots of gain and a great sound from a stock unit. The mods that are available for this turn it into an unbelievable preamp.

Universal Audio 6176

Freq Resp



Harmonics



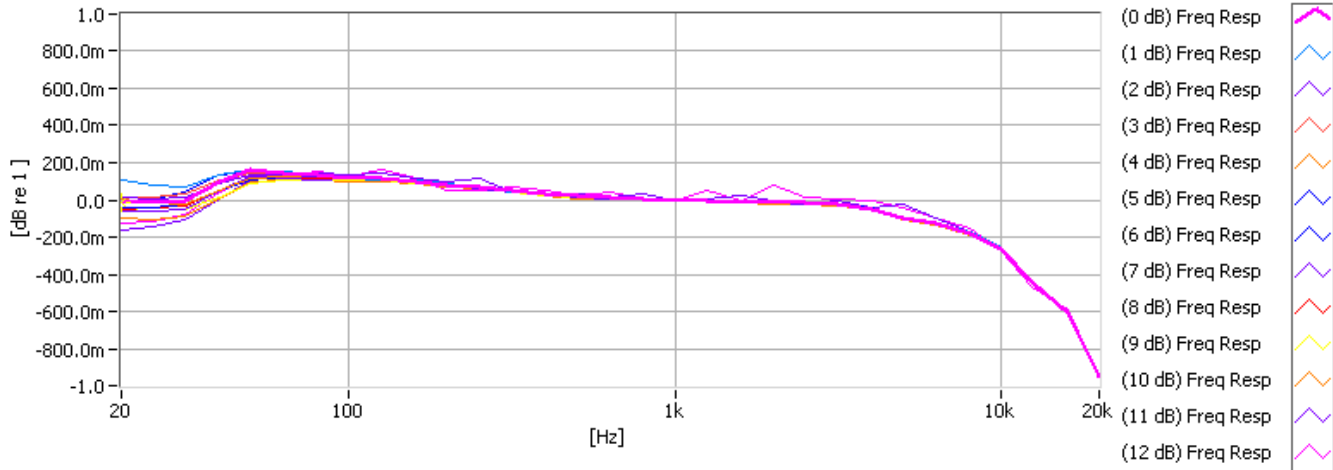
Results 1

Gain at 1kHz	17 dB	Passed
Overall Noise Level [L]	-56.4 dB	Failed
Max THD+N [L]	74.3 %	Failed
Response margin [L]	100m dB	Passed

Universal Audio 6176

Multitone stimulus - Gain steps of 1 dBV. All responses normalized to 0 dB at 1kHz.

FR Normalized



Levels

Start Stim Level Y [dB re 1 V]	-30	
Stimulus Level 1 Y [dB re 1 V]	-18	
Non-Coherent Distortion [L] Me Y [%]	318.406r	

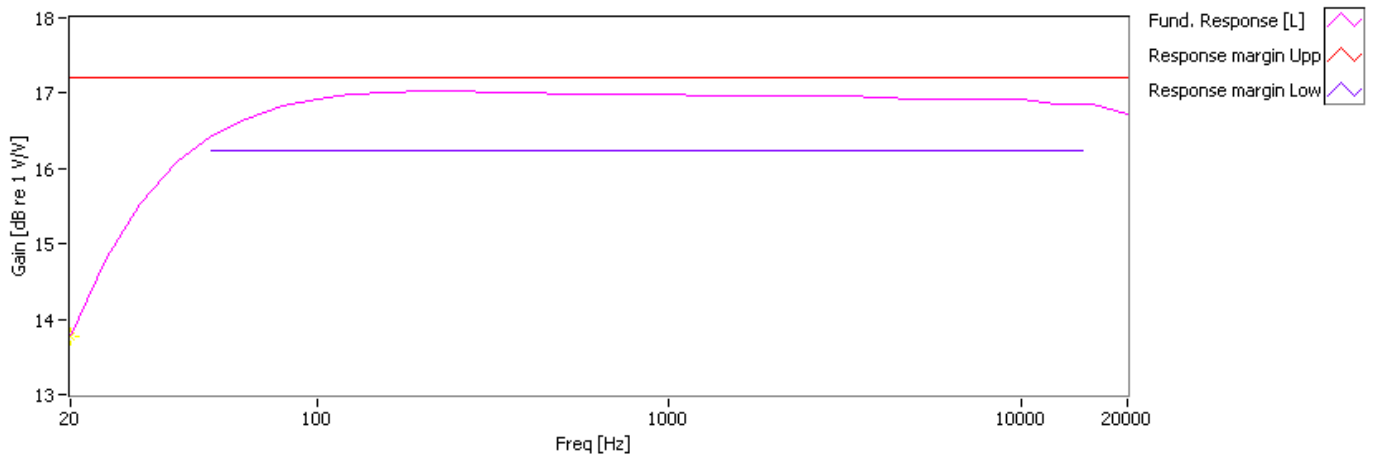


Results

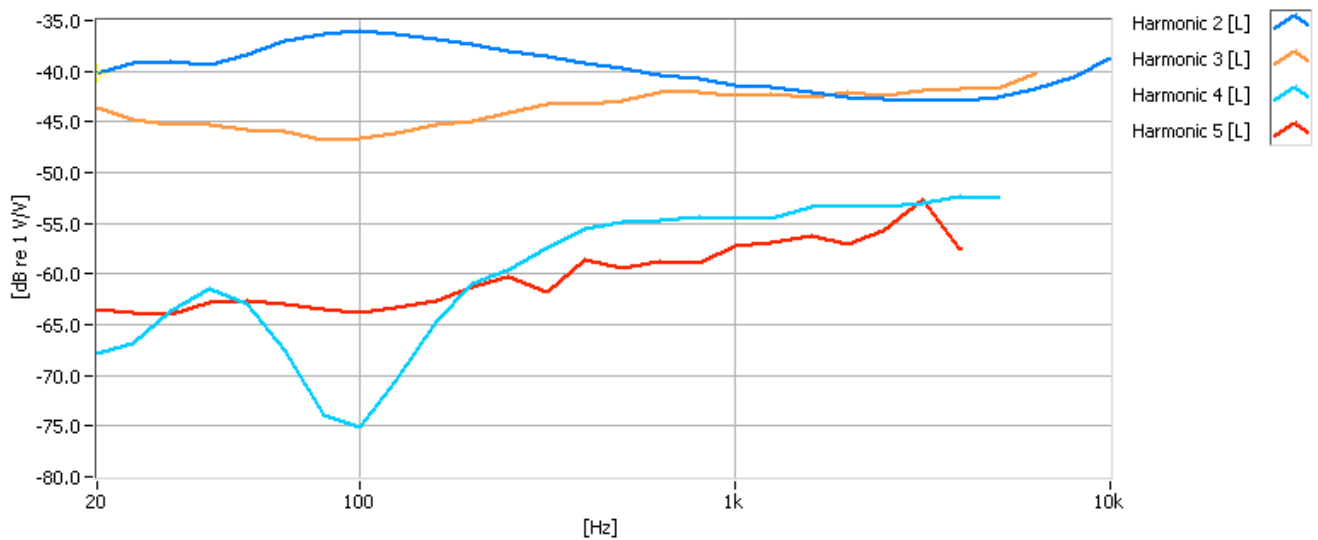
The curves backup the reputation of this preamp.
Great 2nd order vs. 3rd thru 5th harmonics.
Great response.
Very consistent response over a wide gain range.
This unit was using vintage Phillips 12AX7 tubes.

Universal Audio LA 610

Freq Resp



Harmonics



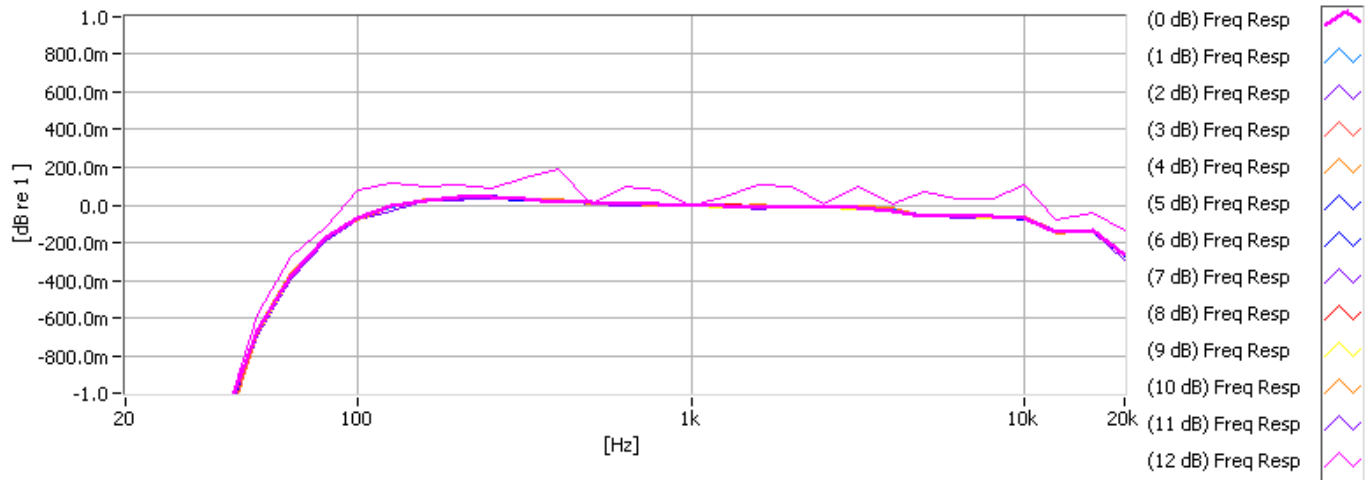
Results 1

Gain at 1kHz	17 dB	Passed
Overall Noise Level [L]	-60.8 dB	Failed
Max THD+N [L]	71.7 %	Failed
Response margin [L]	200m dB	Passed

Universal Audio LA 610

Multitone stimulus - Gain steps of 1 dBV. All responses normalized to 0 dB at 1kHz.

FR Normalized



Levels

Start Stim Level Y [dB re 1 V]	-30	
Stimulus Level 1 Y [dB re 1 V]	-18	
Non-Coherent Distortion [L] Me Y [%]	398.945r	
MCD Dist Sum	5.55308	



Results

The levels of the harmonics are not what you would expect from a tube pre.

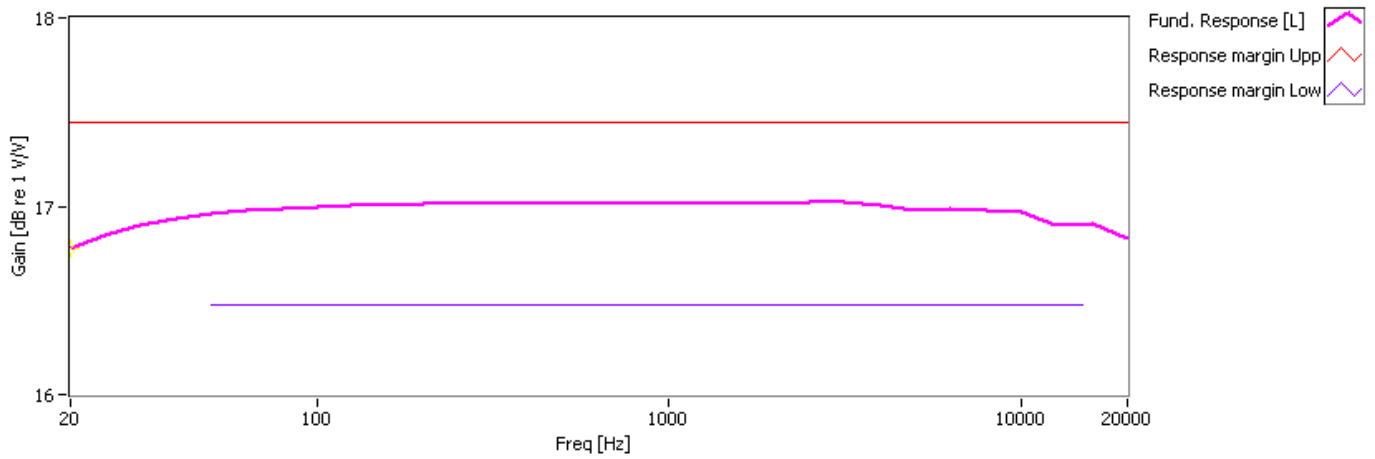
They do explain the sonic characteristics of this preamp though.

Much fatter bottom end and a smooth to "rolled off" high end.

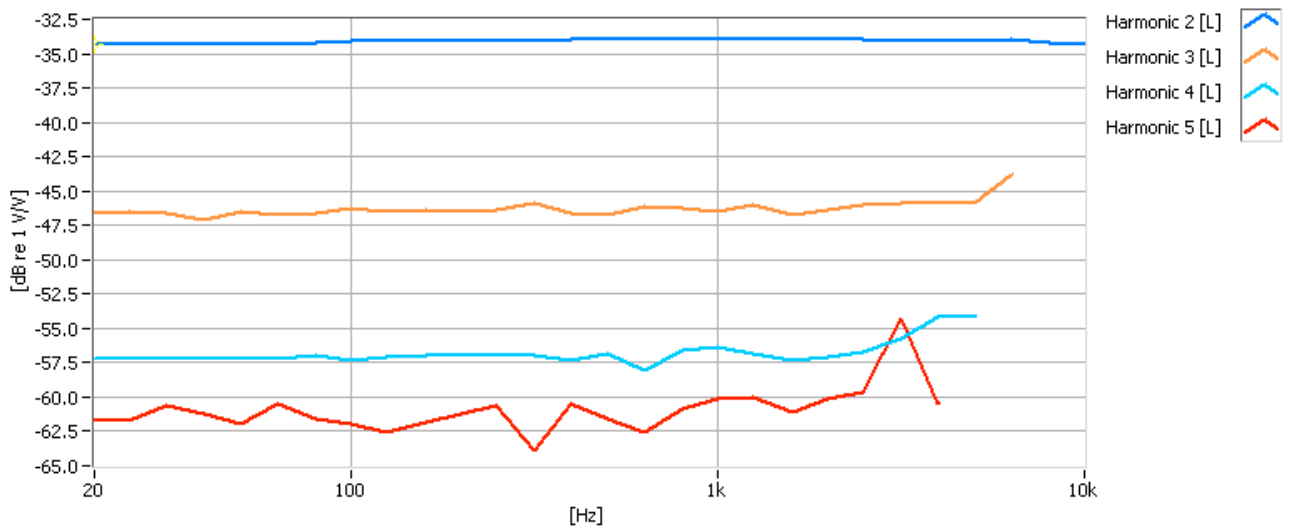
These are the stock tubes. First order of business would be to put in an RCA NOS tube to put some air back in the top end.

C1 by TL Audio

Freq Resp



Harmonics



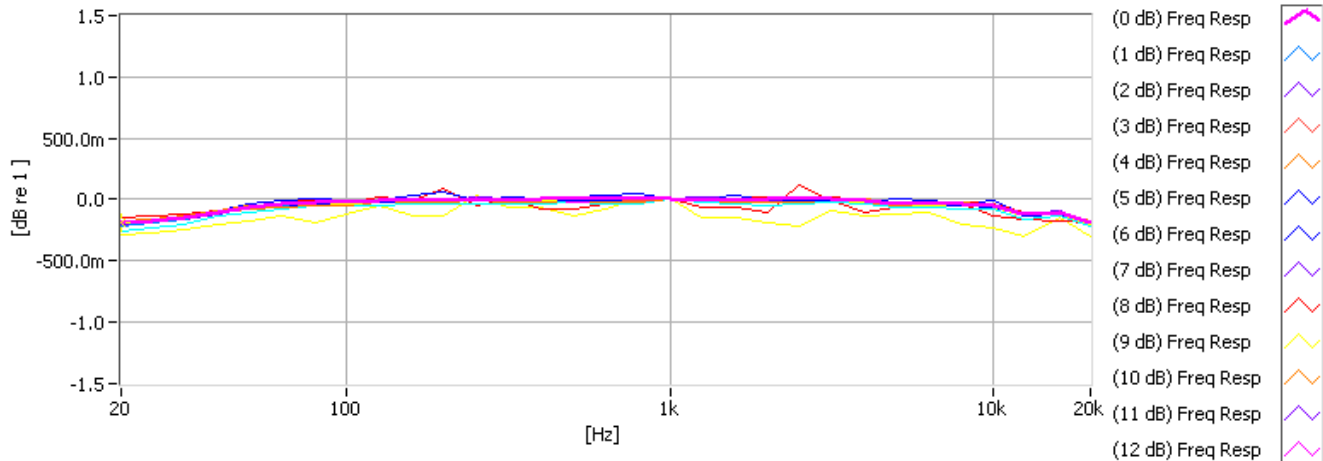
Results 1

Gain at 1kHz	17 dB	Passed
Overall Noise Level [L]	-56.8 dB	Failed
Max THD+N [L]	300m %	Passed
Response margin [L]	400m dB	Passed

C1 by TL Audio

Multitone stimulus - Gain steps of 1 dBV. All responses normalized to 0 dB at 1kHz.

FR Normalized



Levels

Start Stim Level Y [dB re 1 V]	-30	
Stimulus Level 1 Y [dB re 1 V]	-13	
Non-Coherent Distortion [L] Me Y [%]	346.723rr	

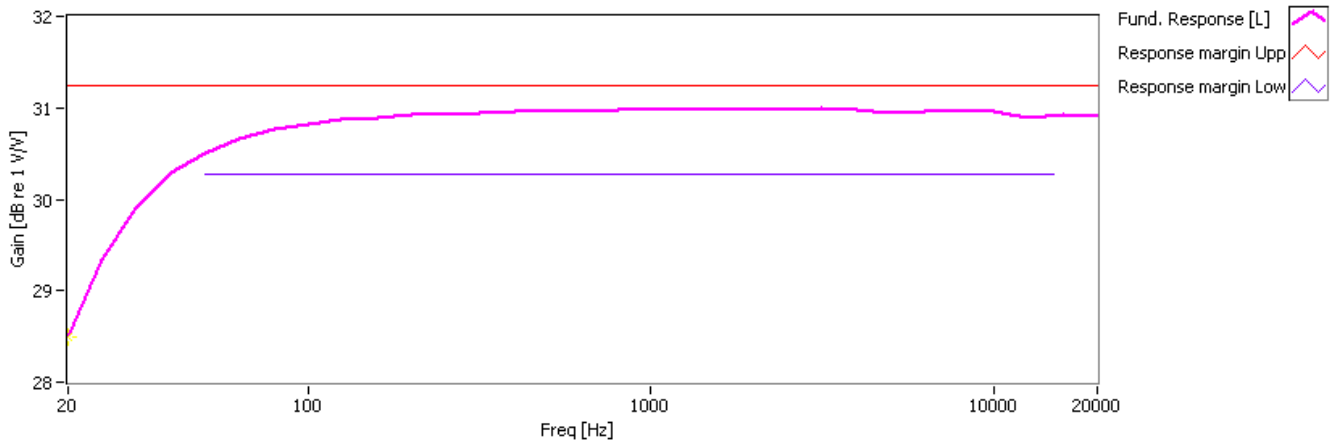


Results

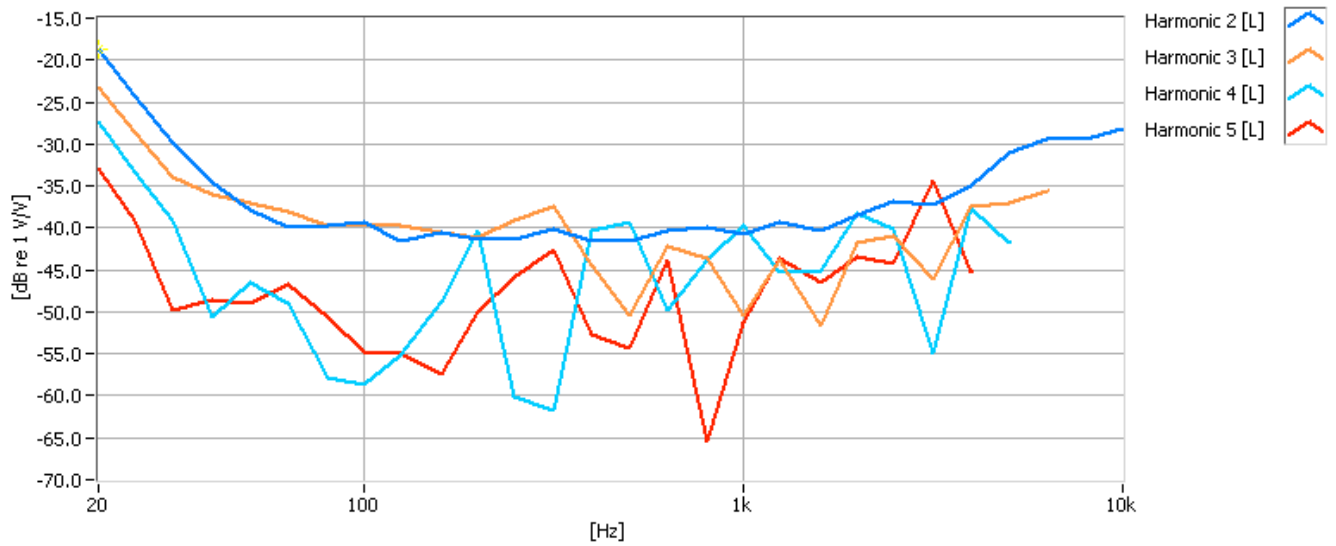
Note the high level of 2nd order harmonics and the flat curve. Much higher than the 3rd order harmonics. Also very low 4th and 5th order harmonics.
 A great set of curves that back up the listening tests done on the unit.
 This preamp was loaded with a GE JAN 12AX7WA tubes.

RP520 by Bellari (modified by Audio Pro; Watertown, MA)

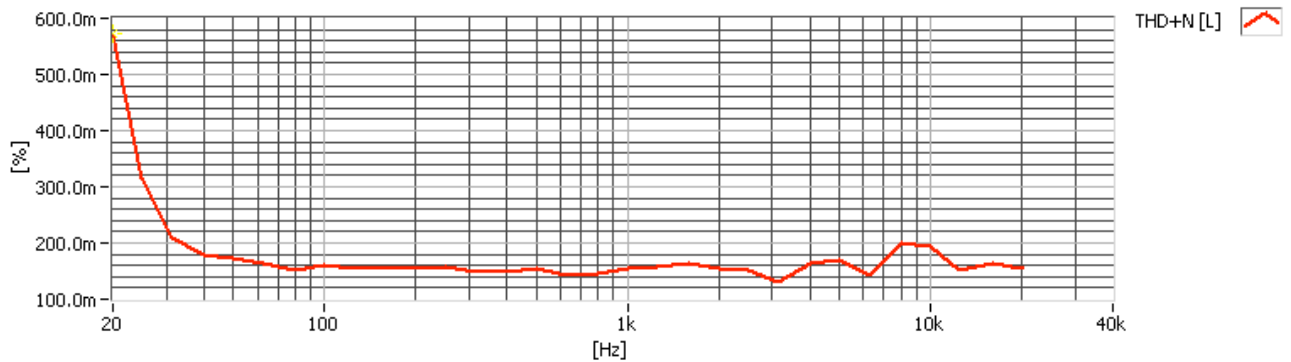
Freq Resp



Harmonics



THD + N



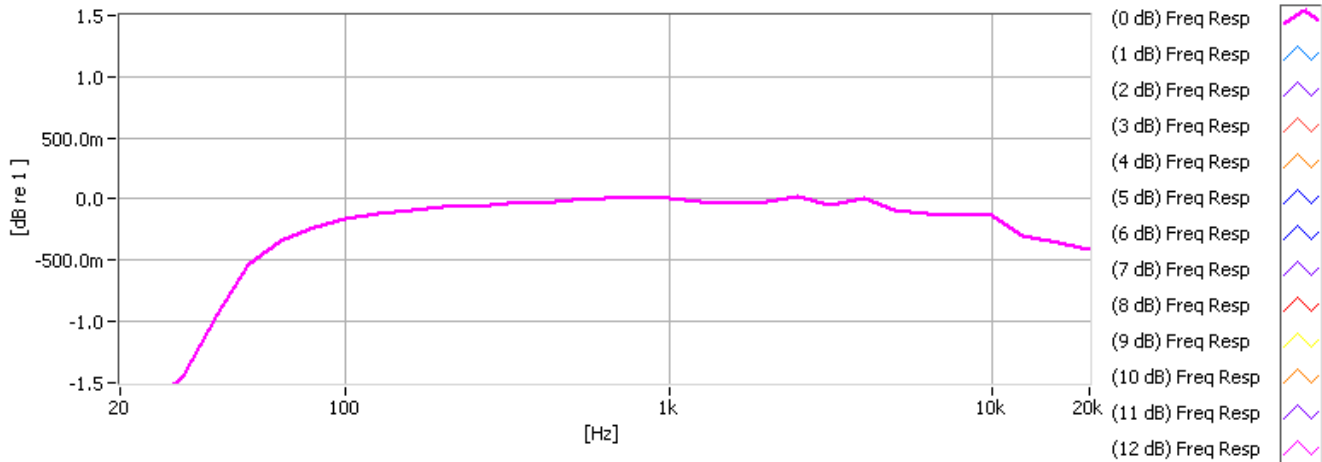
Results 1

Gain at 1kHz	31 dB	Passed
Overall Noise Level [L]	-47.3 dB	Failed
Max THD+N [L]	600m %	Passed
Response margin [L]	200m dB	Passed

RP520 by Bellari (modified by Audio Pro; Watertown, MA)

Multitone stimulus - Gain steps of 1 dBV. All responses normalized to 0 dB at 1kHz.

FR Normalized



Levels

Start Stim Level Y [dB re 1 V]	-50	
Stimulus Level 1 Y [dB re 1 V]	-50	
Non-Coherent Distortion [L] Me Y [%]	324.115r	



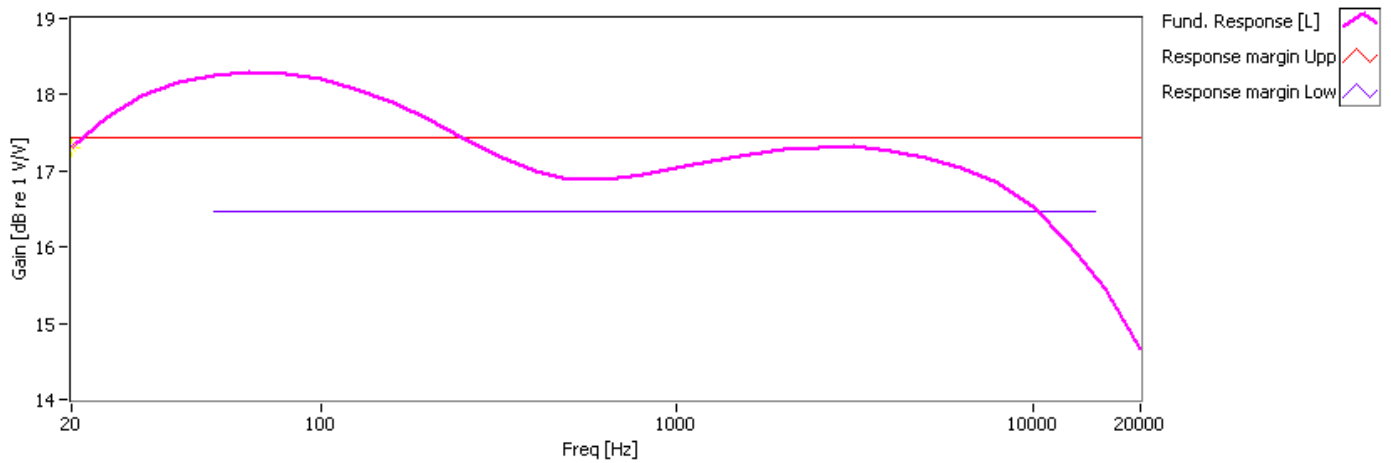
Results

Note: This unit has been modified to have more gain than the original unit. According to measurements made it has approximately 78dB of gain compared to the stock gain of 56dB.

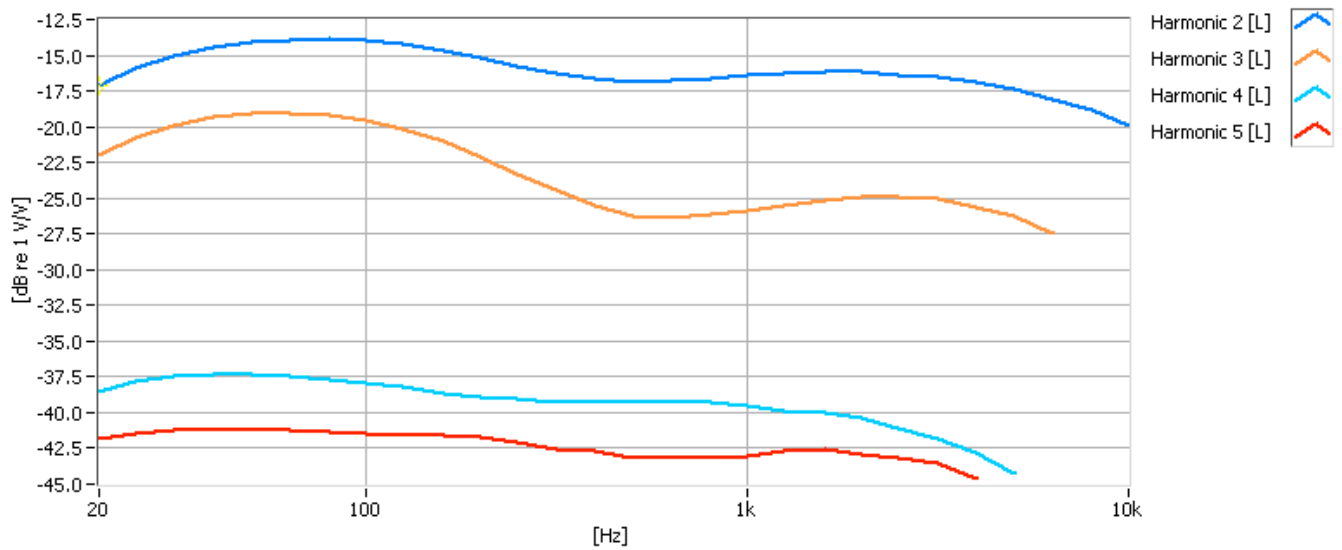
The 2nd order harmonics are very close to the 3rd thru 5th. The curves are very inconsistent. This may be due to the 12AX7 tube that was used. It was a Phillips, vintage 1970's.

MPA by ART (modified by Audio Pro; Watertown, MA)

Freq Resp



Harmonics



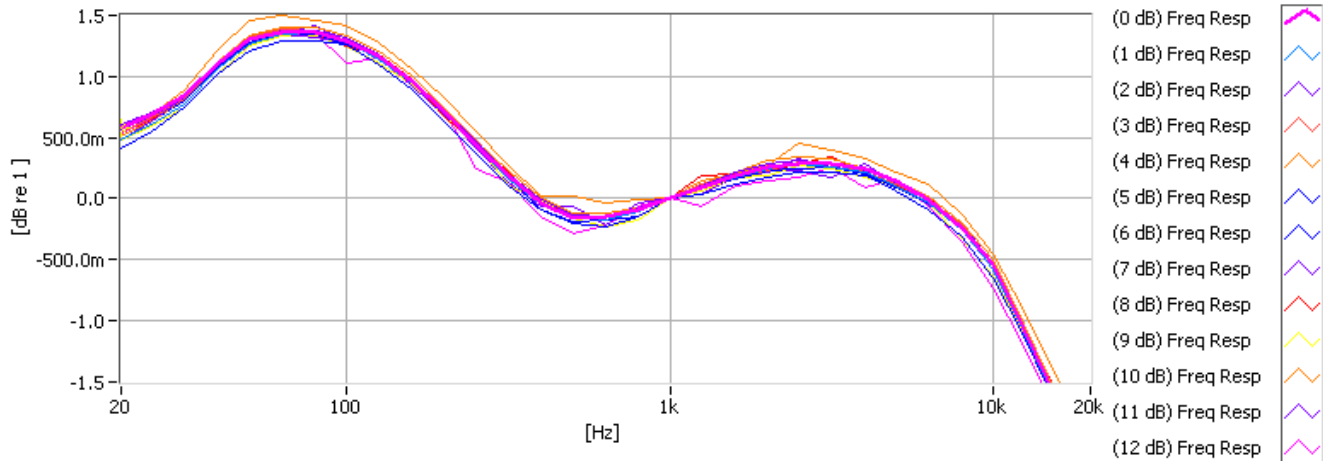
Results 1

Gain at 1kHz	17 dB	Passed
Overall Noise Level [L]	-57.4 dB	Failed
Max THD+N [L]	2.8 %	Failed
Response margin [L]	-900m dB	Failed

MPA by ART (modified by Audio Pro; Watertown, MA)

Multitone stimulus - Gain steps of 1 dBV. All responses normalized to 0 dB at 1kHz.

FR Normalized



Levels

Start Stim Level Y [dB re 1 V]	-30	
Stimulus Level 1 Y [dB re 1 V]	-18	
Non-Coherent Distortion [L] Me Y [%]	454.109m	
MCD Dur Sum	5.062	

Results

Note: This is not a stock MPA. It was modified by Audio Pro.

Most likely the response curve is a result of the mods made by Audio Pro, and this curve, was the desired result.

Note the high level of 2nd order harmonics and the consistency of the curve. Much higher than the 3rd order harmonics. Also very low 4th and 5th order harmonics.

A very nice response for a tube preamp with a lot of character.

This preamp was loaded with an RCA NOS 12AX7.