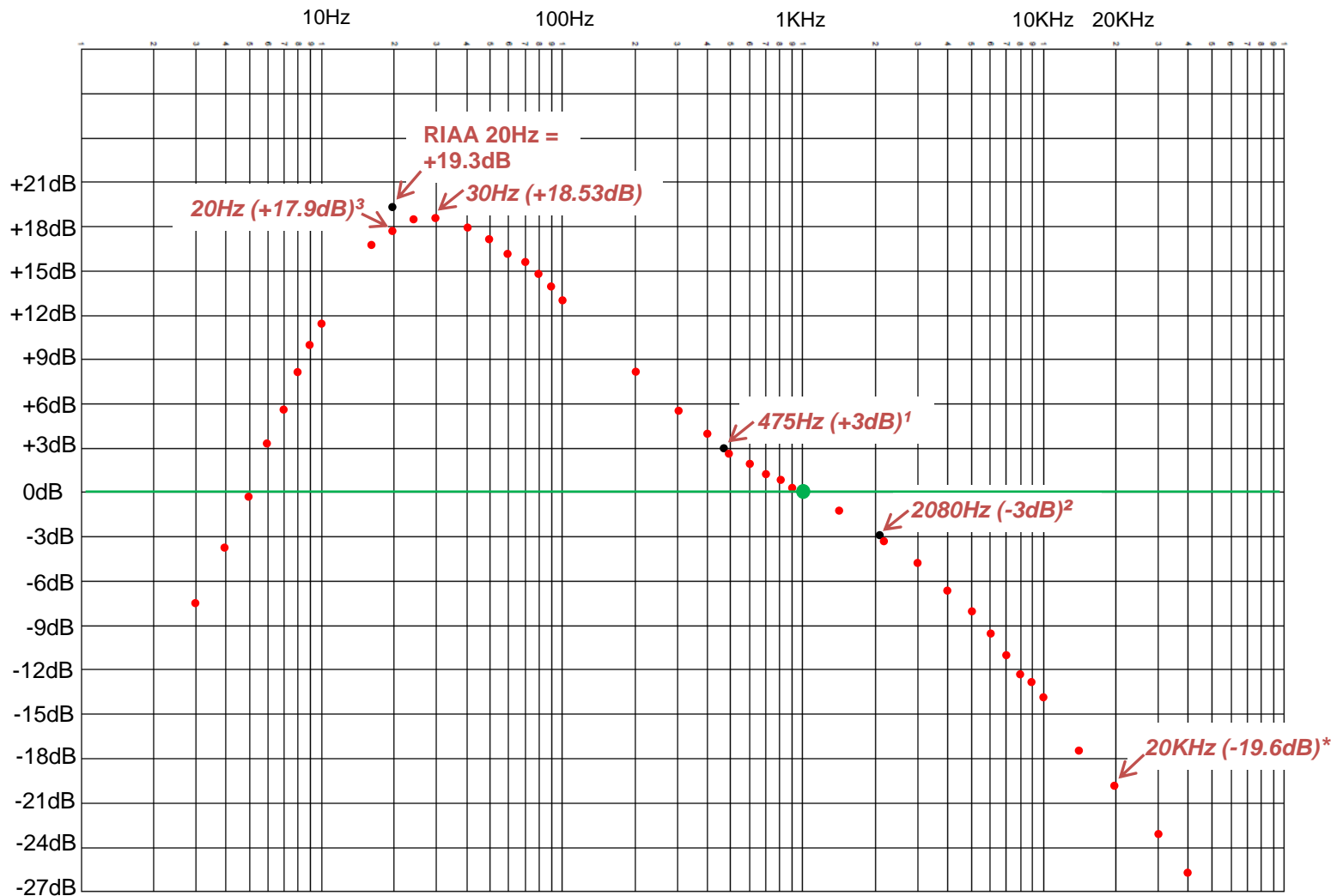


Frequency response of the Marcel Marvel 1-stage MM phono EQ w/ sub-sonic filter

JRA 3/21/2025



¹ Actual reading at 500Hz = +2.57dB

² Actual reading at 2122Hz = -3.18dB

³ 20Hz response down 1.4dB from 19.3dB. 25Hz is *near*-correct. 30Hz is correct.

* 20KHz response is correct.

50KHz -27.6dB
 60KHz -29.1dB
 70KHz -30.5dB
 80KHz -31.3dB
 90KHz -32.6dB
 100KHz -33.2dB
 200KHz -38.4dB

NOTES:

- > All measurements were taken with a combo o-scope, DMM and function generator.
- > Determination of signal level was done by eye using scope cursors after single-sweep capture.
- > 3rd order 16Hz Fc level = 16.7dB. 8Hz level = 7.76dB.
- > 9mVpp sig-gen input signal was set and checked often.
- > 1KHz 0dB output voltage level = 1.8Vpp (46dB)
- > Signal quality degrades quickly below 6Hz but is restored for ≥8Hz.
- > Testing was done with both TL071 and OPA627 op amps. Circuit card and hookups were open to the elements.