

NEOTEK CORPORATION

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MULTI-MODE PARAMETRIC EQUALIZER

Frequency Response Curves

The graphs on the following pages show the frequency response of NEOTEK's four-band parametric equalizer. The following points should be kept in mind.

The graphs were produced by an automatic plotter and have the standard axes of log frequency from 20Hz to 20kHz horizontally and log amplitude response (dB) on the vertical axis.

The data were obtained from a standard production module and the test signal was passed through all sections of the equalizer for each measurement, even though only a single section was adjusted to its extreme settings to obtain each set of curves.

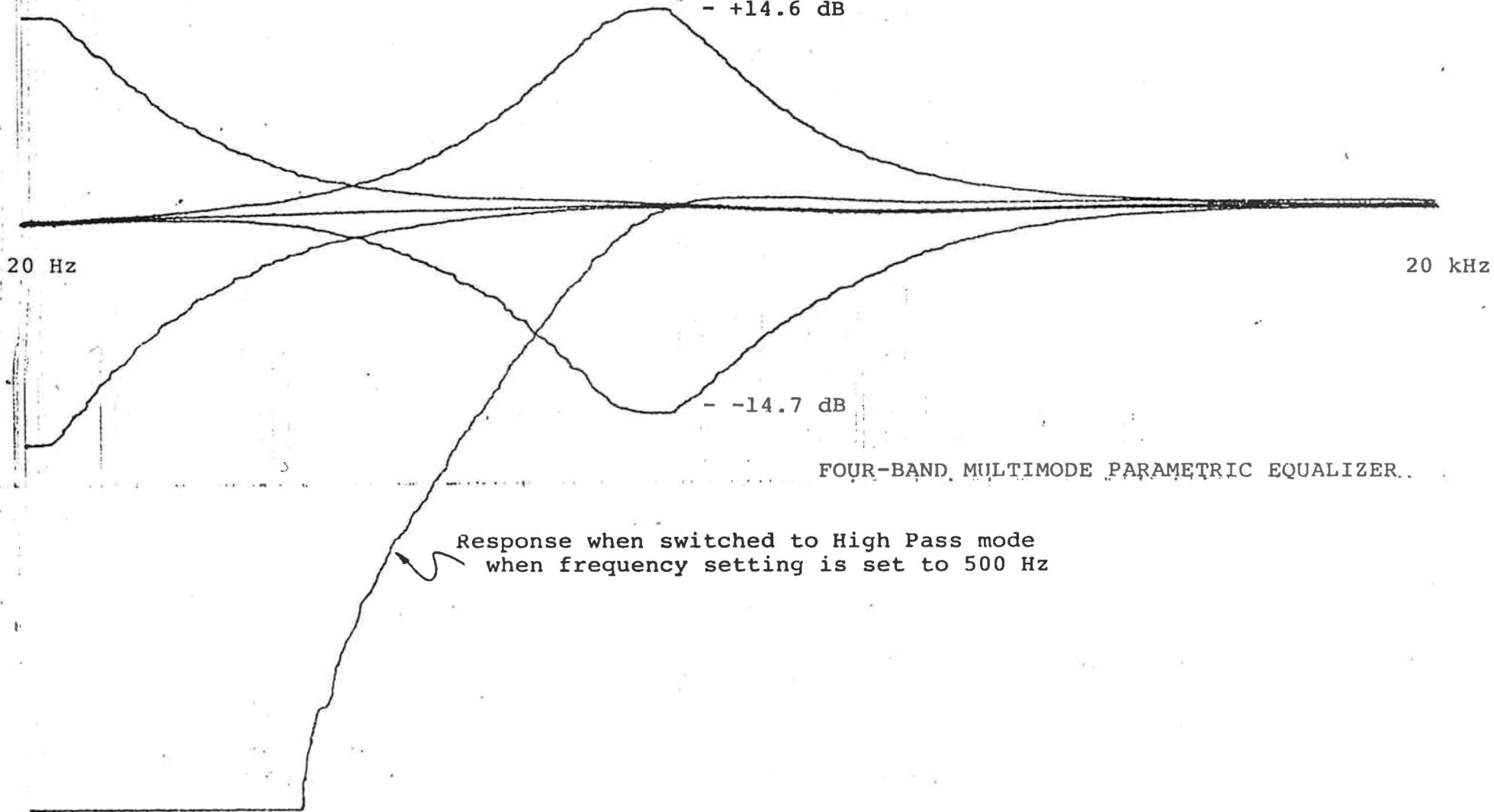
The minor aberrations of the curves, such as the squiggly lines, are artifacts of the test equipment and have not been cosmetically cleaned up for this presentation.

The proprietary implementation of state-variable filter topology which NEOTEK has developed yields an equalizer which is remarkably free of problems; in fact, its response curves are essentially perfect and are uniquely so among audio console equalizers. In examining the curves, note that the boost and cut settings produce responses that are exactly symmetrical. Note that the high frequency side and low frequency side of the boost/cut curves are mirror images, and that they remain so as the bands are tuned to their extreme settings. Note that changing the frequency settings between extremes causes no change in the bandwidth or amplitude response characteristics, i.e., there is no interaction of these parameters. Note that switching to alternate modes (high pass, high Q, or shelf response) also causes no interaction in either the frequency or the amplitude parameters. Note that there are no anomalies at the high or low frequency extremes of any of the curves; this is an indication of more than adequate bandwidth capability throughout the entire equalizer and show that the equalizer will cause no distortions due to limited bandwidth capability.

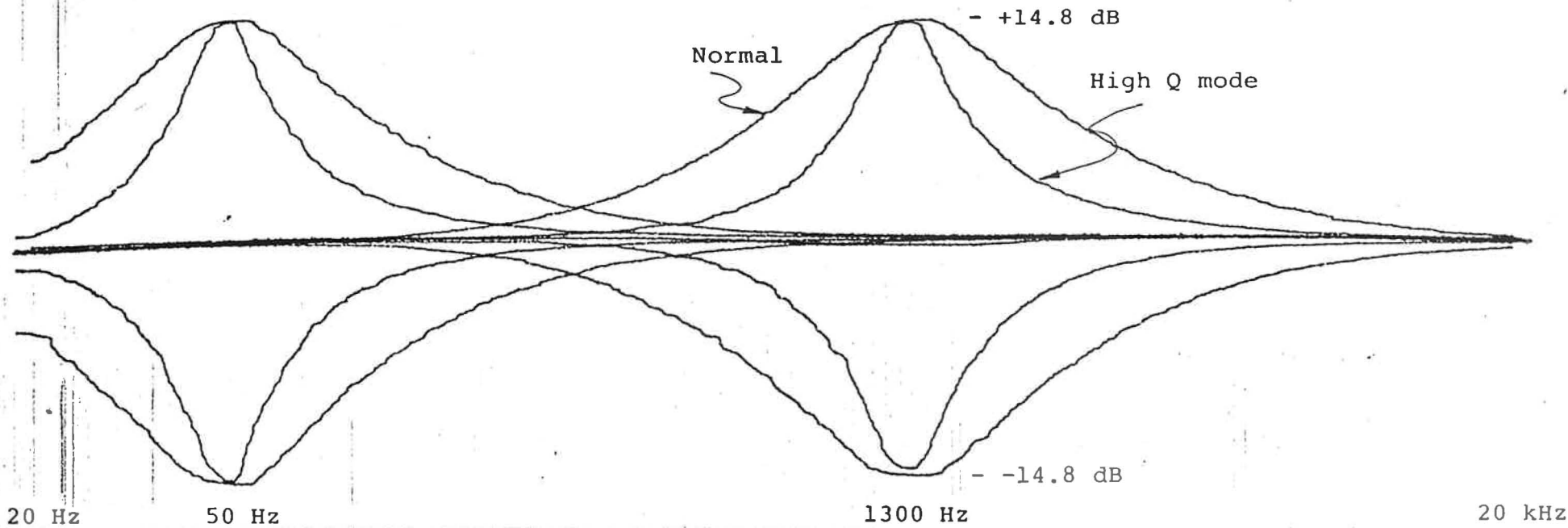
LOW FREQUENCY SECTION Showing extremes in normal mode and High-Pass at 500Hz

500 Hz

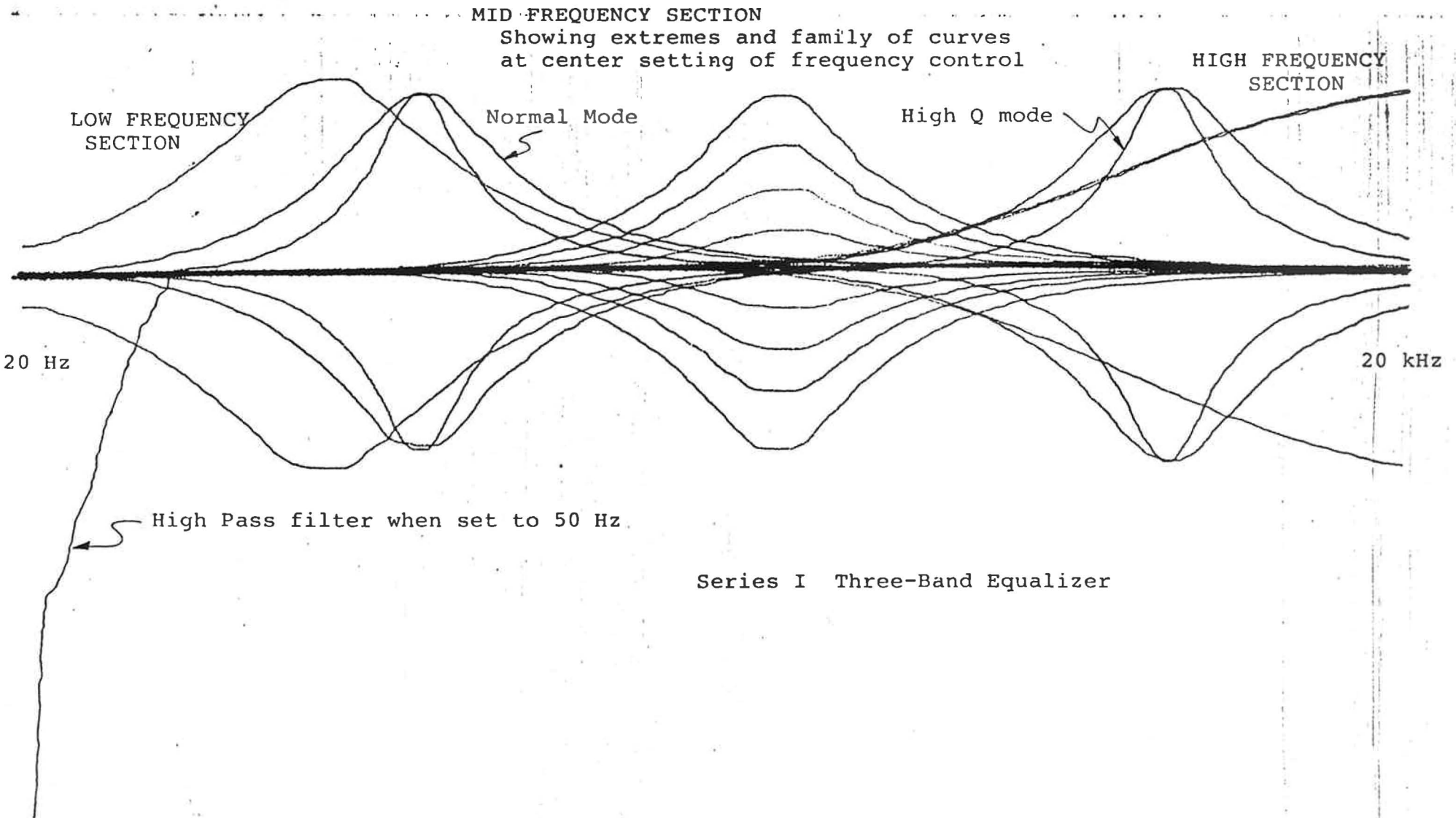
- +14.6 dB



LOW MID EQUALIZER SECTION Showing frequency extremes, extremes
of boost and cut, and High Q mode

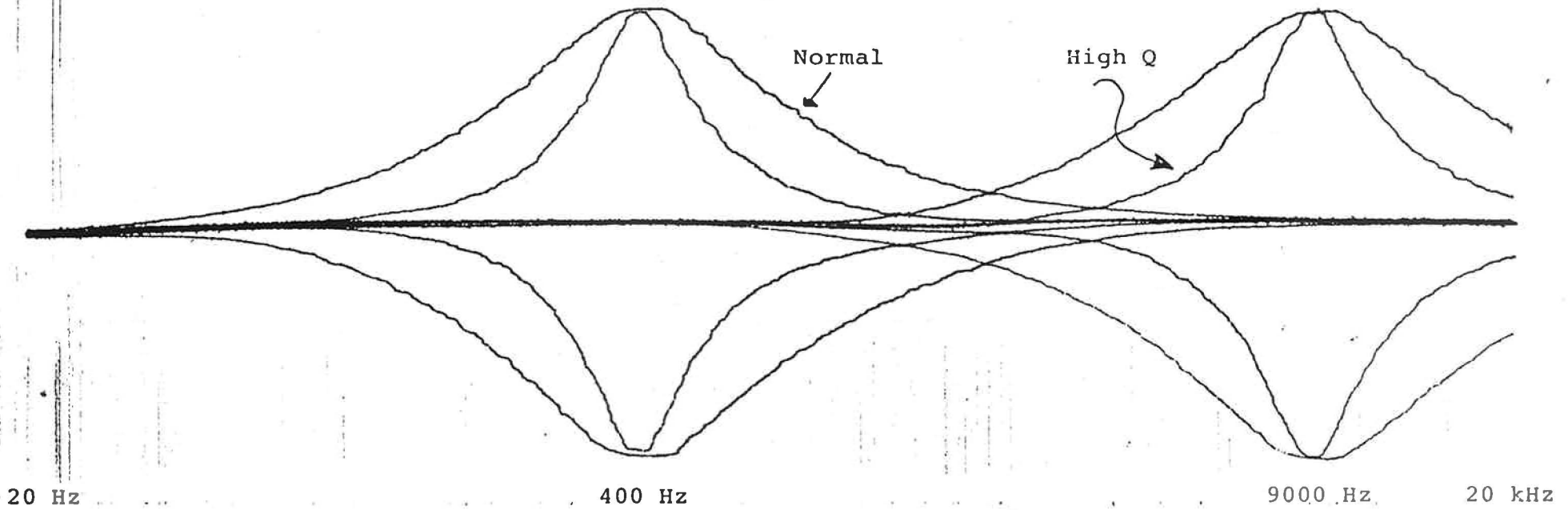


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UPPER MID FREQUENCY SECTION

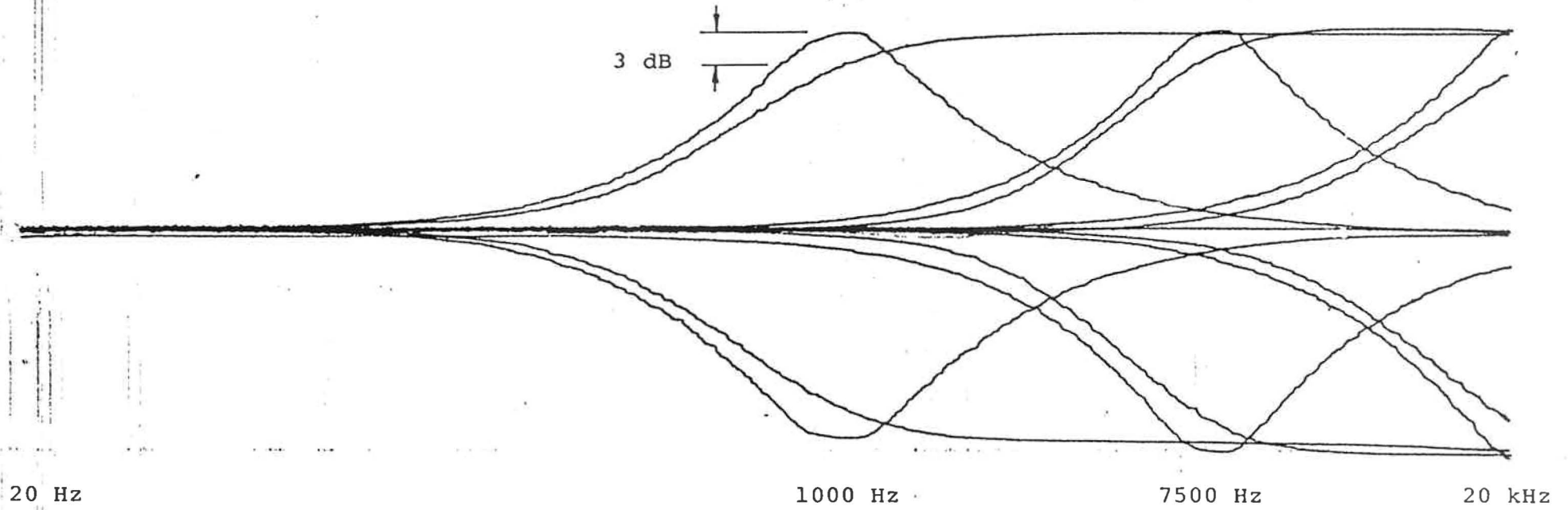
Showing frequency extremes, extremes of boost and cut, and High Q mode



FOUR-BAND MULTIMODE PARAMETRIC EQUALIZER

HIGH FREQUENCY SECTION

Showing extremes of frequency settings and switching to Shelving mode



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