

XII. SPEECH ANALYSIS

Prof. M. Halle
G. W. Hughes
J. -P. A. Radley

A. SET OF HIGHPASS AND LOWPASS FILTERS

In order to obtain sharper cutoff characteristics and greater flexibility than is available on present equipment, a set of 35 highpass and 35 lowpass filters has been constructed. The frequency range up to 10 kc/sec is covered. The filters are all four-section, M-derived, passive networks. A typical lowpass frequency characteristic is shown in Fig. XII-1. The highpass filters have characteristics that are the mirror image of the one shown in the figure.

Bandpass and band-rejection filtering is possible by suitably combining high- and low-pass filters.

G. W. Hughes, J. -P. A. Radley

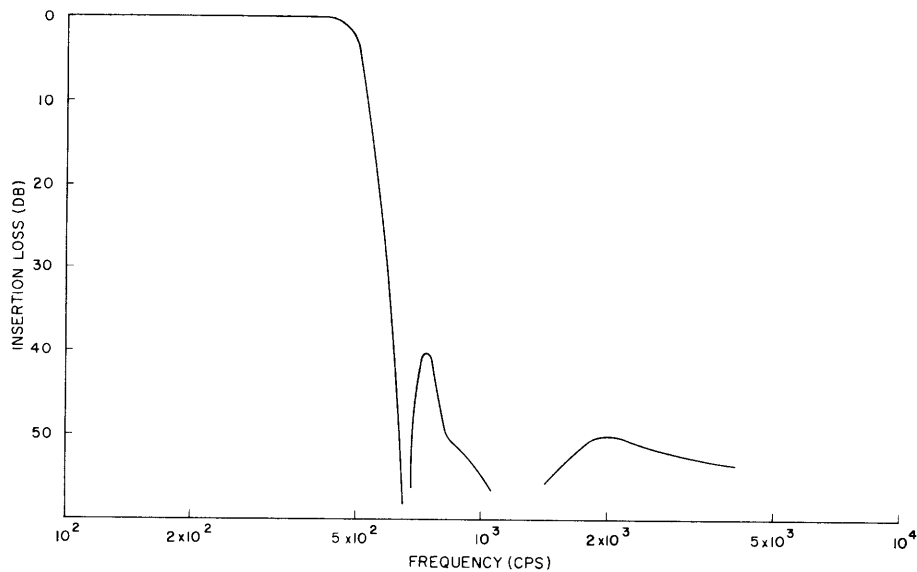


Fig. XII-1

Characteristic of 465-cps lowpass filter; 0 db = 1 volt rms output with input of +6.2 db.