

ABSTRACT
FILTERING

A twisted-pair telephone line 100 is connected to a
5 conventional telephone (at 103) via a low-pass filter and
102 equipment (at 106) for receiving signals in an upper
frequency range e.g. 25-1000 kHz via a high-pass filter 105.

The low pass filter 105 is primarily passive (to allow
passage of line power, ringing and signalling voltages) but,
10 to improve matching to non-resistive line and telephone
impedances, at least the main part of the filter T4, T5,
C4A/B, C5A/B, C6A/B, C7A/B is flanked by impedance converters
300, 400 in which amplifiers IC2, IC4 having an appropriate
transfer function feed voltages back into the line via
15 transformers T3, T7 through which power, ringing and dialling
may pass unimpeded.

(figure 6)