

**APPARATUS FOR TIME DIVISION MULTIPLEXED PROCESSING OF
FREQUENCY DIVISION MULTIPLEXED SIGNALS**

ABSTRACT

Apparatus for processing harmonically related plural quadrature amplitude modulated carriers includes sampling apparatus (12,14) for converting the plural modulated carriers to sampled data format. The sampling apparatus is arranged to
5 sample the signals at a frequency equal to four times the symbol rate of the highest frequency carrier such that alternate samples correspond to in-phase and quadrature-phase components of the signal. The sampled data signals are resampled (16-20) to
10 separate respective in-phase and quadrature-phase components of the respective signals. The in-phase samples of the respective signals are time division multiplexed (20) and coupled to a Nyquist or symbol shaping filter (22) arranged to operate in a time division multiplexed manner.

FIGURE 3

This Sheet Has Been Replaced

