



ABSTRACT

A Method of Estimating Fading in a Pilot Channel

A method of estimating fading of a modulated signal transmitted through a pilot channel using a digital filter 20 is disclosed herein. The signal is divided into frames each of a plurality of symbols y_i and the method comprises the step of deriving a moving average of the symbols received in each frame, of the form

$$x_n = ((n-1)/n)x_{n-1} + 1/Rn \left(\sum_{i = R(n-1)+1}^{Rn} y_i \right)$$

where x_n is the moving average of the symbols so far received for the frame, x_{n-1} is a previously calculated moving average, R is the number of received symbols since the previous average was calculated and n is the number of averages calculated per frame, each average providing a fading estimate for the frame.

Figure 2