

**BLIND MULTIPATH CORRECTION FOR
DIGITAL COMMUNICATION CHANNEL**

ABSTRACT OF THE DISCLOSURE

A blind multipath equalizer for a digital communication channel is disclosed. The equalizer includes a sparse digital
5 filter, responsive to a source of a received signal including a digital data signal, and including a plurality of taps, each responsive to a tap coefficient and time displacement, which produces a multipath corrected digital output signal. A filter controller is responsive to the received signal for detecting a
10 multipath signal by calculating the autocorrelation of the received signal, detecting a multipath signal based on the autocorrelation and supplying a tap coefficient and time displacement to one of the plurality of taps to cancel the detected multipath signal.

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FIGURE 2