

ABSTRACT**Multiple-User CDMA Wireless Communication System**

A receiver for CDMA signals, in which data intended for transmission to
5 multiple intended receivers is spread by respective orthogonal spreading
codes and scrambled by an aperiodic random scrambling code, includes a
processing branch for each of a number of base stations from which the
receiver may pick up CDMA signals. Each processing branch performs both
channel equalisation based on a set of weights for that branch, and a
10 decoding operation. The outputs of the branches are combined to produce a
combined signal which is used both for determining the data intended for the
receiver, and in a feedback loop to improve the sets of weights. The receiver
is reliable even in the presence of mutipath fading and during soft handover.

15 **Fig. 3(a)**