

Abstract

**MICROCELL INCLUDING REMOTE RADIO CHANNEL UNITS
TO A MACROCELL RADIO CONTROL COMPLEX**

A microcell unit (e.g.108), in a cellular telephone system using digital
5 signal processing Bss (104), is digitally connected to a macrocell (104), via a
metallic link (128), such as a twisted pair. The microcell (108) includes a plurality
of radio channel units (RCU) (149), to provide voice connectivity to mobile
subscribers (MS), which are under control of a radio control complex (RCC) located
in the macrocell (104). Several time slots of the macrocell TDM bus (124), through
10 which the RCC exerts control of the RCUs, are remoted (at 138) to the microcell
(108) thereby enabling control of the RCUs at the microcell location by the RCC of
the macrocell. This remoting action is achieved, via a remote time division
multiplex (TDM) circuit pack (135) which enables the RCC to communicate with
the RCUs as if they were located within the macrocell (104).

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