

Abstracts

Radio architecture of a wideband DS-CDMA testbed for future cellular systems

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The radio implementation of a wideband test system which has been developed by Ericsson is described. With the testbed, wireless multimedia service investigations for UMTS/FPLMTS can be done under field conditions. The system architecture provides a flexible air interface where new services can easily be introduced. Already implemented services are high quality speech with fixed or variable data rates as well as high data rate transmissions for video, Internet or other TCP/IP data applications. The high data rates and the flexibility of applications result in new demands for the radio architecture and for key components, like digital-to-analog and analog-to-digital converters and power amplifiers. This paper provides a system overview describing some applications and a more detailed description of the radio architecture of the wideband testbed. Finally measurements of the data throughput and of the radio channel are shown.

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