



POOLING OF FREQUENCY RESOURCES OF ADJACENT CELLS

Innovative device for limiting handover by sharing cells between eNode B and by simultaneous monitoring of several frequencies by the receiver

Technological advantages

Fewer handovers

Use of macrocells to reduce handovers when the first signal becomes too weak to guarantee correct service. Several cells can share the same frequency band: a method of sharing resources, in between satellite telephony and mobile ground-based telephony for improved management of all types of handovers.

Optimised allocation of resources

More flexible allocation of frequency resources for coverage

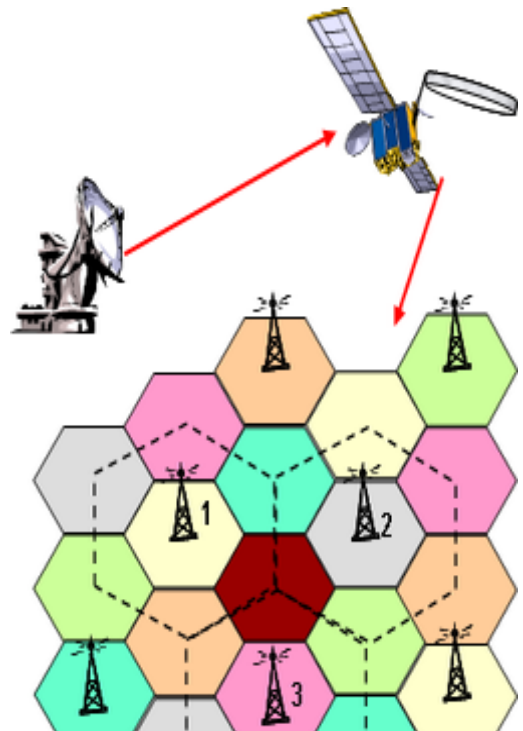
Enables the use of smaller cells.

Optimises the overall system capacity.

Simplified management

Does not require changing network equipment and facilitates compliance with 3GPP standards.

Less complicated updating of software solutions.



The artificial surface area of the cells is multiplied by 3 if 6 spots out of 7 are shared by 3 different eNode B stations

Summary of the invention

Satellite cellular radio-communications system in which several cells are managed by a single eNode B. The receiver, which can monitor several frequencies simultaneously, does not require handover as long as the quality of the macrocell signal remains acceptable

Potential applications

Satellite telecommunications

Ground-based mobile telephony (5G standards)

Internet, GSM on trains

Aeronautical communication on aircraft

Commercial advantages

Improved service quality

Service continuity with less interference due to a reduction in handovers

More flexible management of cells

Compliant with 5G and 3GPP standards

TRL : 2

Patented invention available under licence