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Description of Software Power Boost

With Software Power Boost (or Tx Delay Diversity as it is also known) the transceivers are used in "pairs", that is two normal transceivers transmit the same data on the same frequency. A small time delay is inserted between the transceivers, which causes a diversity effect in the terminal, since it receives two independently faded radio signals thus improving the received signal quality. This is possible since the equalizer in the handset receiver is specified to handle a wide time delay spread.

The feature gives a downlink diversity gain of around 3 dB depending upon the surrounding environment. In a flat environment this can correspond to a 20-30 % decrease in number of sites required to achieve ubiquitous coverage. This is directly translated into reduced cost since a large part of the radio network cost is tied to the number of sites. Increased coverage of RBS sites is also beneficial when rolling out a new network or covering new areas since services can be launched with fewer sites, that is earlier network launch.