

Factors that affect power consumption of communication base stations

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In this paper we have developed a power consumption model for macro base stations which comprises of a static power consumption part only. In contrast to that, a power consumption model for micro ...

As power model will affect the energy-saving gains of different green resolutions, in this paper we provide such power models for mobile communication BSs relying on practical data collected from ...

The aim was to analyse real-world energy consumption behaviours across urban macro base stations (eNBs), including both temporal usage patterns and internal component-level power distribution.

Key performance metrics such as power consumption, energy harvested-to-consumption ratio, and service time are investigated for different ABS configurations, considering factors such as wingspan, ...

The power utilized at a base station PBTS was separated into two categories: traffic dependent and traffic independent since the measured current values for some base station components did not ...

Base stations represent the main contributor to the energy consumption of a mobile cellular network. Since traffic load in mobile networks significantly varies during a working or weekend day, it is ...

However, there is still a need to understand the power consumption behavior of state-of-the-art base station architectures, such as multi-carrier active antenna units (AAUs), as well as the impact of ...

Discover the key factors influencing power consumption in telecom base stations. Optimize energy efficiency and reduce operational costs with our ...

The network power efficiency with the consideration of propagation environment and network constraints is investigated to identify the energy-efficient architecture for the 5G mobile ...

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