Deformation Limitations of Communication Towers

Monopole communication towers are cantilever structures with large slenderness and low stiffness. The horizontal displacement of the tower top plays a controlling role in structural deformation.

The main objective of this paper is to present and discuss failure mechanism, failure mode, as well as plastic deformation of a lattice telecommunication tower obtained during a full-scale ...

This article presents a method for monitoring the deformation of monopole communication towers using multi-source data fusion and dynamic displacement ...

Communication towers act as vertical trusses and resists wind load by cantilever action. The bracing members are arranged in many forms, which carry solely tension, or alternatively tension and ...

Excessive deformation is the main cause of damage to monopole communication towers, and dynamic displacement can be used as a key indicator to evaluate structural deformation.

ced. Most research to date has been performed on 3-legged self-supporting towers, and minimal attention has been paid to the seismic behavior of 4-legged self-supporting telecommunication ...

Monopole communication towers play an irreplaceable role in modern communication systems. Because of its high flexibility, lateral loads control the deformation of a monopole communication tower.

This article presents a method for monitoring the deformation of monopole communication towers using multi-source data fusion and dynamic displacement as an evaluation indicator.

In this paper, we monitored the dynamic deformation of the communication tower using the PDMS (photography dynamic monitoring system). Results showed that the tower is integrity and stability; ...

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