

PDEOZE PowerContainer

Base station power lightning protection board



Overview

What is a lightning protection system (LPS)?

3.2.3 lightning protection system (LPS): Complete system used to reduce physical damage due to lightning flashes to a structure. NOTE - An LPS consists of both external and internal lightning protection system.

How should a lightning protection System (RBS) be formed?

The earthing network of an RBS should be formed by a ring loop surrounding the tower, equipment room and fence, at a minimum. The mean radius r_e of this ring loop should be not less than l_1 , as indicated in Figure 1 and this value depends on the lightning protection system (LPS) class and on the soil resistivity.

What is a type 1 Lightning current arrester?

This is why the standard DIN EN 62305 (IEC 62305) mandates a type 1 lightning current arrester at the boundary between lightning protection zone 0 B and 1. In mobile communication stations, this boundary typically aligns with the base station's outlet.

What is a radio base station (RBS) earthing network?

The most important objective of the radio base station (RBS) earthing network is to minimize the differences in potential between the conductive parts within the RBS site (equipotential bonding), which is beneficial for the safety, lightning protection and electromagnetic compatibility (EMC) performance of the equipment.

Why do cell sites need to be protected from lightning strikes?

Cell sites are essential for communication infrastructure and need to be shielded from power surges caused by lightning hits. A major concern for telecom operators is towers going offline due to lightning strikes, which often target the tallest structures in a region.

What is lightning & surge protection?

A thorough lightning and surge protection approach provides optimal safety for people and high availability systems. LSP designs specialized AC and DC Surge Protection Devices (SPDs) for mobile radio sites.

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Because power lightning protection belongs to system engineering and must be considered as a whole. It generally includes the following four aspects: lightning protection of AC power cables, ...

Lightning protection, earthing and bonding: Practical procedures for radio base stations
Summary Recommendation ITU-T K.112 provides a set of practical procedures related to the lightning ...

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