



# The impact of lightning on communication base stations

Is a telecommunication tower impacted by lightning? If the antenna is installed on the top of telecommunication tower, e.g., antenna positions 1 of Figure 29, it is considered to be impacted by or exposed to direct lightning strikes. Refer to [IEC 62305-3] for detail information about the protection angles and volume protected by an air termination system. Does a lightning arrester protect a telecommunication station? Lightning protection (strikes with indirect effects) for telecommunication stations by lightning arresters, is applicable for all electrical networks. It is also compulsory to provide protection against lightning strikes with direct effects by placing a lightning arrester (near the top of the tower) or a large private subscriber / consumer (tertiary industry, others). Lightning protection (strikes with indirect effects) for telecommunication stations by lightning arresters, is applicable for all electrical networks. 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 11, as indicated in Figure 1 and this value depends on the lightning protection system (LPS) class and on the soil resistivity. 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 to protect against indirect lightning strikes on electrical networks?

Protection against indirect lightning strikes on electrical networks must be treated globally. ABB offers a complete range of lightning arresters adapted to this approach. They must be used in accordance with standard practice with a ground network optimized by earthing (low impedance). Research on Protecting and Operating 5G Radio Base Stations May 12, 2024. This article mainly introduces researching results on using lightning strikes data obtained from lightning location systems (LLS), to protect and operate the fifth generation (5G) mobile communication network. Industrial Technology Innovation 2024. Thunderbolt weather Mobile communication base station Lightning protection for Telecommunication Stations Mar 14, 2024. Impacts on structures: direct effects Lightning protection (strikes with indirect effects) for telecommunication stations by lightning arresters, is applicable for all electrical networks. LIGHTNING EFFECTS IN BASE STATIONS OF GLOBAL Feb 24, 2024. Abstract: This paper presents some methods and results of field measurements of lightning effects in a typical base station of global system for mobile communication. A direct Communication Network GSM-Base Stations GSM (Global System for Mobile Communications) and base stations form the basis of the modern world communication network and are vital for voice and data communication. Especially for emergencies, commercial How Are Base Stations Protected Against Lightning? Oct 28, 2024. 4. Lightning Protection for Distributed Base Stations Distributed base stations are often deployed with the BBU co-located and must avoid introducing connections that Analysis of Lightning Environment of Radio Base Stations in Sep 30, 2024. In recent years, a large number of radio base stations and antenna towers have been built in Shenzhen. The

