LEAKY COAXIAL CABLE AND COMMUNICATION SYSTEM

ABSTRACT

Embodiments of this application provide a leaky coaxial cable and a communication system. The leaky cable includes: an inner conductor, an insulation layer, and an outer conductor, where the insulation layer is configured to separate the inner conductor from the outer conductor; and the outer conductor includes M perforated segments and N non-perforated segments, the M perforated segments and the N non-perforated segments are alternately arranged, at least one of the M perforated segments includes at least three leaky holes, spacings between leaky holes in each of the at least one perforated segment are the same, and M and N are positive integers greater than or equal to 1. The leaky coaxial cable is used, so that embodiments of this application can provide a leaky coaxial cable that meets a requirement like a long coverage distance without requiring an excessively high input power. The communication system includes a first transceiver device and a central node device, where the first transceiver device is connected to a central node device, and the first transceiver device is connected to the leaky coaxial cable. In embodiments of this application, the communication system is deployed in a scenario like a fully mechanized mining face of a coal mine, to enhance a wireless coverage capability.

FIG. 3