

GEM Free Space Optics equipment

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OVERVIEW

Infrared laser communication is free space optical communication (FSO), refers to the use of laser-generated beam, through air from one device to another device to send broadband data, voice and video. This technology can be considered as optical transmission with optical fiber cable to achieve the same optical transmission of optical transmission wireless transmission technology. This communication can effectively solve the problem of traffic and information security. Its application has been gradually from the military and aerospace into the civilian areas, the technology itself is constantly improving

Applications

- can be used as optical fiber communication and microwave communication redundant link backup;
- can be applied to the interconnection between mobile communication base stations, wireless base station data return;
- applied to the construction of metropolitan area network and the last mile access;
- in the technical or economic areas should not lay the cable, in the use or restrictions should not be used where the radio communication;
- in the military facilities or other vital departments need to strictly confidential occasions;
- in the enterprise interconnection and data transmission.

FEATURES

● High speed

Free space optical communication and microwave technology, it has a high modulation rate, frequency bandwidth, do not take the spectrum resources and other characteristics.

● High flexibility

Compared with wired and optical fiber communication, it has the advantages of flexibility, less impact on municipal construction, low running cost and easy to popularize. It can be erected directly on the roof, transported by air. No need to apply for a frequency license, nor laying the road to dig the road. The use of point-to-point system, in determining the line of sight between the two points of unobstructed channel, the general can be installed within a few hours, put into operation. After taking into account the conditions of the local weather, optical wireless systems generally get 99.9% availability. If the use of other systems constitute the main standby, or even up to 99.999% carrier-class availability requirements.

● Low price

Free space optical communication can compensate for a certain degree of fiber and microwave deficiencies. Its capacity and fiber similar, but the price is much lower.

● Easy to operate

Free space optical communication on the operation of the agreement transparent, communication network commonly used SDH, ATM, ip and so can pass.

● Upgrade convenience

Free space optical communication can be composed of point-to-point, star, and grid-shaped structure of the network, easy to upgrade, just a slight change in the interface can change the capacity

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