

激光技术

激光制导武器转移式光纤干扰系统的参数分析

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摘要 讨论了激光制导无源角度欺骗干扰系统——转移光纤干扰系统的工作原理, 重点分析了系统干扰效果的功率比、延迟时间等参数。分析表明: 只要合理选取光纤接收的覆盖面积和假目标的反射系数, 假目标反射的激光功率可满足干扰要求; 几个微秒的延迟时间远小于导引头脉冲录取波门宽度, 导致进入波门的几率极高。证明了系统干扰的可行性, 探讨了目标若采取伪装措施和转移激光直接向空间发射等手段, 干扰效果可进一步提高。

关键词 [激光制导](#) [角度欺骗式干扰](#) [无源干扰](#)

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Parameter analysis for optical fiber deception system to displace laser guiding angle

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Abstract The operation principle of the passive angle jamming system (optical fiber laser jamming system) by changing the laser guiding angle was presented, system jamming effectiveness parameters such as the power ratio and the delay time were discussed. The analysis shows that the laser power reflected from the decoy can meet the requirement if the coverage of the optical fiber receiving system and reflectance of the decoy are properly selected, and the delay time of several microseconds is far less than the gate width of the target required by seeker, which makes the incident probability of laser echo into the gate from the decoy quite high. The feasibility of the jamming system is proved. Other measures such as the camouflage or displacing laser into open space could make the jamming system more effective.

Key words [laser guidance](#) [angle deception jamming](#) [passive jamming](#)

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