

## 机载电子设备闪电间接效应防护设计

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**摘 要:** 针对闪电间接效应对飞行安全的影响, 提出了机载电子设备外部接口闪电间接效应防护设计方法; 针对闪电间接效应的防护设计, 提出了一种工程上常用的防护功率理论计算方法, 给出了一种以太网接口闪电间接效应防护电路, 经过闪电环境试验室的试验验证, 该防护电路能够满足闪电间接效应环境试验要求。

**关键词:** 闪电间接效应; 闪电防护电路; 机载电子设备; TVS

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## Protection Design of Lighting Indirect Effect for Onboard Electronic Equipment

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**Abstract:** Considering of lightning indirect effect affecting flight safety, a method for onboard electronic equipment of lightning indirect effect protection has been proposed. Considering of protection design of lightning indirect effect, a normal protection power theory calculation method has been proposed and an Ethernet interface protection circuit for lightning indirect effect has been designed. After being verified in lightning environment laboratory, the protection circuit can meet the environmental testing requirements of lightning indirect effect.

**Key words:** lightning indirect effect; lighting protection circuit; onboard electronic equipment; TVS

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