

研发、设计、测试

## 航空电子FC不同拓扑和服务类的实时性测试

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**摘要** 在不同的消息流分布模式下, 对光纤通道(FC)各种拓扑结构和服务类进行了性能测试, 给出了各种传输情况下的消息延迟和吞吐量随负载的变化关系。通过分析得出结论: 光纤通道的交换网络和服务类3分别较仲裁环和服务类2延迟小, 最大吞吐量大; FC网络在均匀负载模式下, 累积负载为网络最大吞吐量的50%以下时, 消息传输具有确定性延迟上限。

**关键词** [航空电子](#) [光纤通道](#) [性能测试](#) [延迟](#)

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## Real-time performance test for different topologies and classes of service of fiber channel in avionics systems

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### Abstract

Under different background stream, topologies and classes of service, Fiber Channel (FC) network performance has been tested. Graphs of relationship among throughput, delay and workload have been given in different traffic pattern. Through analysis the conclusions are presented. The message delay of fabric and class 3 of service of FC is respectively smaller than Arbitrated Loop and class 2 of service, and maximal throughput of the former is bigger than latter; The research on the message delay in FC reveals that the timely delivery of the message can be achieved in the network if the accumulated load is less than 50% of maximal throughput in a uniform traffic pattern.

**Key words** [avionics](#) [Fiber Channel](#) [performance test](#) [delay](#)

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