



Case Study: GORE® Ethernet Cables for Defense Aircraft

Reducing Downtime & Costs with Proven Reliable High Data Rate Solution

? CHALLENGE

One year after installing an Ethernet cable solution in a European fighter jet, aviators noticed system performance issues with data transmission. The problem was insertion loss degradation linked to a number of flying hours that caused unplanned maintenance, extended downtime, and added costs to replace the poorly performing cable. Ultimately, the **OEM contacted Gore to develop a reliable Ethernet solution that would enable them to reduce maintenance, downtime, and replacement costs.**



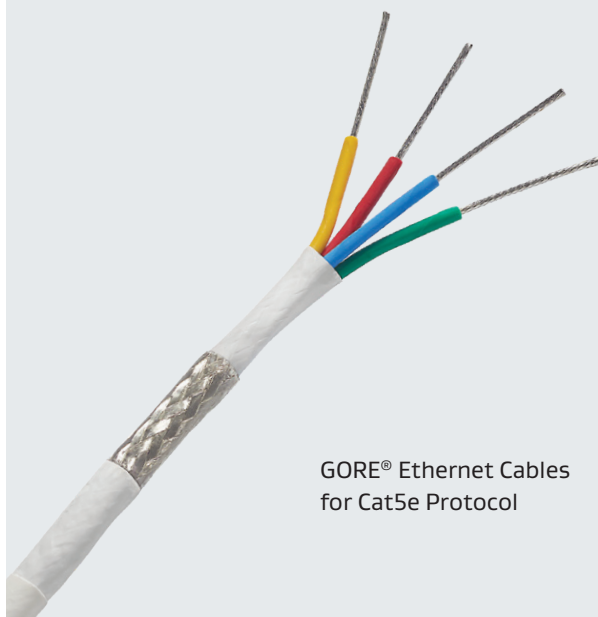
"We were pleased the OEM contacted us to develop a longer-lasting solution to accommodate their system needs and requirements. Our custom Ethernet quadrax cable maintained its overall integrity over a prolonged flight time, enabling less maintenance and costs."

**Martin Dunning, Application Engineer,
Aerospace & Defense**

💡 SOLUTION

GORE® Ethernet Cables feature a **unique quadrax design** that the company originally invented. This innovation is proven to deliver unfailing signals, vastly better insertion loss to crosstalk ratio, and improve shielding effectiveness after installation and over time in avionics.

Gore engineers worked closely with the OEM to design a customized Ethernet solution that could outperform the previous solution. **After install and one year of flight time, Gore's solution continued to provide the same reliable high-speed data transmission without the slightest degradation in insertion loss.**



GORE® Ethernet Cables
for Cat5e Protocol

★ RESULTS

The Gore team provided the only reliable solution in the industry. Our innovative solution improved installation for aircraft maintainers and proved trustworthy for aviators. **The outcome:**

- Unique, customized quadrax design originally invented by Gore
- Continuous high-speed data transmission after installation and over time
- No insertion loss degradation and improved shielding effectiveness
- Fewer maintenance intervals and decreased aircraft downtime
- Reduced cable replacement costs

How can we help?

Leading aircraft OEMs choose Gore because our solutions have delivered failure-free performance and protection for decades. Find out how we can do the same for you!

gore.com/aerospace-defense-contact

Get complimentary **samples** of our pre-qualified high data rate cables to validate and support low-rate production in your application with lower technical and business risks to your program.

gore.com/hsdc-sample-form-air-defense

Why Choose GORE® Ethernet Cables?

Leading OEMs, system architects and engineers, maintainers, and aviators trust Gore because they know our aerospace cables will deliver installed performance, last longer than alternatives, and improve system performance.



TRUSTED PARTNER

- Decades as a trusted technology partner to the aerospace industry
- Extensive expertise in manipulating expanded PTFE and other fluoropolymers
- Long heritage supplier with established, award-winning designs



PROVEN PERFORMANCE

- Failure-free high data rate performance after routing through aircraft lifetime
- Durable quadrax design provides added protection in extreme conditions
- Compact, flexible construction facilitates quick, easy installation



ONGOING COLLABORATION

- Work closely with customer design teams from product concept through manufacturing integration
- Quick turnaround of designs and prototypes
- Post-installation support from Gore application engineers



FITNESS FOR USE

- Gore solutions adhere to our standards of high quality and product integrity
- Meet customer expectations with products that are fit for their intended use
- Our products do what we say they will do — the first time and every time

All technical information and advice given here is based on Gore's previous experiences and/or test results. Gore gives this information to the best of its knowledge, but assumes no legal responsibility. Customers are asked to check the suitability and usability in the specific application, since the performance of the product can only be judged when all necessary operating data are available. The above information is subject to change and is not to be used for specification purposes.

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