

# Case Study

## L-com Increases Product Durability and Reduces Cost for HBM's SoMat Data Acquisition Product Line



### Customer Profile

Customer: HBM  
Location: Marlborough, MA  
Industry: Data Acquisition

### Challenge

- Design a custom interface cable with robust strain relief
- Meet aggressive price targets without compromising design requirements

### Solution

- Custom D-Subminiature interface cables with molded back shell strain reliefs

### Results

- A more robust cable design for field DAQ applications
- Lowered product cost
- Reduction in product returns and repairs

### Challenge

HBM's SoMat product line is a pioneer in the field of portable data acquisition systems for field and lab analysis. From aerospace to the automotive industry and all parts in between, SoMat systems help some of the world's best companies go farther and faster through rugged and modular data acquisition (DAQ) systems that do what it takes to get the job done. Their products are built tough to withstand harsh environments and have the capacity to perform a broad range of on-board data processing.

For over 60 years, the name HBM has stood for reliability, precision and innovation all over the world. The company is a technology and market leader and offers products and services for an extensive range of measurement applications in many industries. Users worldwide rely on HBM's perfectly matched components that guarantee maximum accuracy of measurement results.

HBM was looking for a vendor who could provide a more durable, custom interface cable solution for its SoMat data acquisition product line. Their current cable design was lacking a robust strain relief which was essential for SoMat's customers. Initially SoMat had their cables manufactured with assembled/mechanical backshells. Because these assembled backshells could not provide adequate strain relief due to the non-uniform shape of the cable bundle, individual cables occasionally pulled out of the backshell strain relief. Additionally, SoMat required a very competitive price point for the assemblies to keep their overall product cost down.

### Solution

L-com's engineering team designed several custom D-Subminiature cable assemblies using molded backshells to replace HBM's existing assemblies. Not only did the cables solve HBM's strain relief durability issues they also reduced SoMat's overall system cost.

### Results

HBM is now able to offer its customers a more robust DAQ solution for use in the field where harsh environments exist. The new molded back shell design provides the durability required for field DAQ applications where shock, vibration, temperature extremes and the elements are prevalent.