

RAPID PROTOTYPING AND PRODUCT DEVELOPMENT



APPLICATION

Active radar counter measures Towed Radar Decoy (TRD) for the military/defence sector. The TRD is deployed from the aircraft and towed on a 100m Kevlar® cable.

KEY FEATURES

The TRD is deployed from its pod on a 100m Kevlar® cable containing a Fibre Optic link and a separate power distribution line. Space and weight of the module is a premium. The interconnections must take into account the harsh operational environment. Because of the volume constraint on aircraft it was important to create a working prototype of a very precise scale.

TIMESCALES

One working prototype was required in two months.

SCENARIO

Tekdata Interconnect designed the Towed Radar Decoy (TRD) harness. The complex 600+ wired harness with differential signals, shields & DC wiring was constructed on a low cost three dimensional jig that emulated the installed dimensions of the TRD. The same assembly jig was then configured with test interface harnesses to be used as the test fixture. The

Tekdata
interconnect systems



Tekdata interconnect systems

prototype was tested extensively and improved further, before being presented to BAE Systems for final approval. The final prototype was successfully approved.

ACTUAL

Several TRDs were ultimately fitted to the Tornado F3 aircraft in 2003. A fibre optic TRD is also being developed for Eurofighter/Typhoon.

SUMMARY

Although using standard design principles, this project required "outside-the-box" thinking. Tekdata delivered a complex prototype which, following successful integration and acceptance supplied the production quantities for squadron deployment.

