

# Turnkey Test Solution

## Invisio Communications—Design for test

### Strategy:

With a strategy of continued focus on broader product portfolio, Invisio partnered up with DSE for design of a new generic test concept. Due to the product portfolio in scope the focus area's are:

- ◆ high quality
- ◆ a modular and scalable test solution based on standard available components
- ◆ Invisio must be in control of all processes

### Design for test:

A common proces "design for test" was made to optimize the production cost and test coverage. The proces involved R&D, Test dept., Production dept. and also external suppliers. The PCB design was also considered/ optimized for the production test. DSE made design presentation of an "Invisio standard" testplatform for testsoftware, instrumentation and fixtures. The design was reviewed and the optimal solution was decided by Invisio.

### Turnkey solution:

Based on Invisio test specifications, DSE made design suggestion for a generic hardware/software testplatform, incl.:

- ◆ Functional PCBA test, End test..
- ◆ Test & Measurement, Instrumentation
- ◆ Testrack
- ◆ Programming of DUT during test
- ◆ Boundary Scan test
- ◆ Fixture, and easy change between product-lines.
- ◆ Test-software incl. Grafic User Interface for operator, specific test -sequences, instrumentdrives, traceability.
- ◆ Test data management

DSE delivered the turnkey test system complete incl. CE certificate.

The proces of internally productdevelopment combined with project management for a new test system is often very dynamic due to the development-processes and complexity.

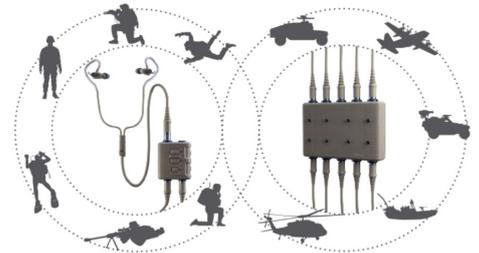
Having inhouse engineering and workshops, DSE is able to be very agile and support Invisio in this dynamic proces.

### Key features:

- ◆ Designed for test.
- ◆ Generic modular testplatform based on standard elements.
- ◆ Scalable solution for future products or expanding/changes of the test specifications.
- ◆ Optimal use/reuse of test equipment for multiple products.

# INVISIO®

INVISIO is a global market leader within advanced communication and hearing protection systems. The company develops and sells advanced systems that enable professionals in noisy and mission critical environments to communicate and work effectively, while protecting their hearing.



### Anders Thomsen, Test Design Engineer at Invisio says:

*Our strategi is to use a generic designed testplatform with a high degree of re-use of testsoftware and instrumentation. This enables Invisio to be very flexibel and ensure a short time-to-market for new models.*