

DSE5200 In-line Test Handler



- **Fully automated In-Line handler**
- **Flexible and customizable test platform**
- **Designed for 24 h. operations**
- **Individual handled Genrad blocks in cassette fixture Interface**
- **Up to 150 mm topside components**
- **Max DUT size: 400 x 295 x 150mm**
- **Stable and repeatable testing**

Benefits

DSE5200 flexible handler is a compact inline test platform supplied with SMEMA interface.

It designed for continuous 24 h. production test and provides you with stable and repeatable testing capabilities.

High degree of flexibility

DSE5200 is designed to allow a high degree of flexibility to implement customized requirements.

Simple maintenance and adjustments

The cover plates are easily removed to allow free access of the inner part of the handler in case of service/maintenance or implementation of new test applications.

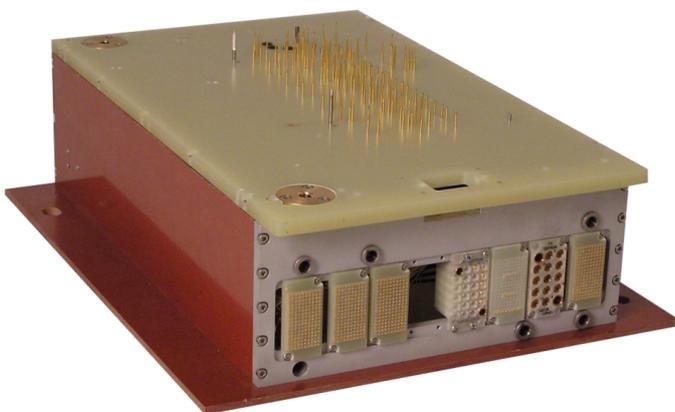
Pneumatically controlled handling

DSE5200 fixtures are supplied with pneumatic operations for operation of the fixture securing a very stable contactation between test pins and PCBA.

System description

DSE5200 interface between the receiver in the handler and the fixture cassette is GenRad contact blocks. The receiver is split into three separate parts, which can be operated separately. This gives the advantage of dynamic disconnection of part of the GenRad blocks during test.

The board positioning is built into the fixture cassettes, to ensure full flexibility and to reduce the tolerances.



Interface and operational security

DSE5200 is supplied with SMEMA interface, status signal lamp and acoustic alarm and built-in controller, which gives and optimal security of the test.

Cassette fixture concept

The DSE5200 fixtures are based on exchangeable fixture-cassettes concept and hold-down frames, which allow fast switching between different products to be tested.

Built-in ID on fixtures

The fixtures-cassettes and hold-down frames has built-in ID, to prevent the system from malfunction if the fixtures does not correspond to the product under test.



Manual vs. automatic conveyor width-adjustment

DSE5200 standard version is supplied with manual conveyor width-adjustments. Optional an automatic conveyor width-adjustment can be supplied.

Forward vs. reverse direction

Depending on the setup, it is possible to configure the controller to exit the test product either in forward direction for in-line setups, or in reverse for off-line setups.

Passed and failed products

To avoid mix-up of passed and failed products in the manual operated setup, the handler is configured only to have the passed products automatically released. A failed product is only released if the operator presses the release button.

Specifications

Dimensions	
Overall dimensions (LxWxH) excluding automatically width adjustments	640x760x1715mm
Conveyor height SMEMA	950mm +/- 25mm (optional 900mm)
Weight (depending of configuration)	200 Kg
Max board size: (LxWxH)	400x335x150 mm
(Max board size effectively LxWxH)	400x295x150 mm
Max board load	6 Kg.
Height of components bottom side	14mm
Height of components top side	150mm
Tolerances fixture cassette to hold down chassis	< 0,15mm
Edge free of components (Edge clearance)	3,0mm
Interface	
Supply	230VAC
Fuse	6A
Compressed air	6 Bar
Interface	SMEMA
Board load	
Load time, excluding test time (pass through)	max. 5 sec .
Board contacting time	4 sec.
ESD	
All parts are ESD safe. Conveyor is according to DIN EN 22104. < 10 ⁶ W.	

Case - a new inline handler version of the DSE 5200

DSE was invited to take part in a project where the customer had some quite specific request regarding the test platform. This became the birth of the DSE multihandler.

1. Cost effective solution

It had to be cost effective and based on standard components and/or platforms.

2. Increased output / reduced floor space

Demand for increased testing capacity and at the same time reduced floor space.

3. Enhance DUT logistics

The solution had to enhance the handling logistic between OK and Non-OK DUTs. It had to be able to handle the transport of Non-OK tested DUTs to a separate conveyer especially for repair.

Chosen Inline handler solution

1. In order to keep the proposed solution as cost effective as possible the DSE5200 single cell flexible handler with the same cassette fixture concept was chosen as the standardised hardware platform. By reusing the DSE5200 single cell platform non recurring engineering cost was reduced a great deal.

Other advantages is that the multihandler is based on known proven technology from the single cell and that the cassette fixtures are compatible between the two handlers.

2. In order to bring forward the request for increased output capacity and reduced floor space the single cell handler module was multiplied by three which was put on top of each other.

In order to get access to the three test cells it was decided to design an elevator and buffer cell in front of the testing cells in order to be able to feed the individual cells with the right type of DUT.

By incorporating all these functions into one standardized hardware platform, the floor space was reduced by making it much higher than the single cell version. Another advantage is that the Multihandler can handle different types of DUTs in each cell as long as they have the same width.

3. In order to enhance DUT logistics there was added an additional exit for the repair conveyer. The repair exit I connected to the front mounted elevator and buffer module.

Other features

As the DSE5200 the multihandler is supplied with SMEMA interface, status signal lamp and acoustic alarm and built-in controller.

The fixtures-cassettes and hold-down frames has built-in ID, to prevent the system from malfunction if the fixtures does not correspond to the DUT type.

Further information

For further information or demonstration of the DSE5200 Flexible Handler, please contact our sales department at tel. +45 75 61 88 11 or e-mail: dse@dse.dk.

