

## Compact Multicell Test System

### Highly modular concept design

- / Semi-auto (operator-ready) or full-auto (conveyor line)
- / Fully convertible solution
- / Different configurations according to test requirements and production demands

### Footprint optimization

- / Full advantage of available height
- / Up to 24 DUTs (Devices Under Test)



## PRODUCT DESCRIPTION

The **CMTS - Compact Multicell Test System** is a multipurpose test machine designed for precision, efficiency and footprint optimization by accommodating a large number of test positions while maintaining functionality comparable to other standard test systems.

The station functions as an automatic pick & place system, enabling easy placement and removal of Multicell Test Modules (MTM) based on test requirements and production demands.

Its modular design allows for a simple line layout reconfiguration, by removing some test cells (modules) without interrupting the production line. Another main advantage of this concept is space saving: the vertical modular configuration allows for the integration of a maximum of 12 modules without the need to increase the production floor footprint.

## KEY FEATURES

Modular and flexible concept design, facilitating the selection and assembly of different configurations

Exceptional space-saving capability and versatility, enabling easy upgrades and incorporation of new products

Multipurpose functional testing incl. complete run-in testing with high temperature profiles, (re)flashing, and RF testing with customized shielded box

Complete electrical approach without pneumatic supply required

Removable side panels for easy maintenance

Custom-built lift for pick and place functions

## PRODUCT CONFIGURATION

### / Station capacity

- Total MTM space: max. of 24 CTUs (Controlar Test Units) (according to module type)
- Max. simultaneous testing of 12 MTM (24 DUTs)
- Suitable for modular configuration according to test requirements

### / Integration of specific test equipment

- Bottom and/or top position rack

### / Front and/or rear monitor for HMI display

### / Safety panel sensors, barriers, and other safety equipment

### / Optional hardware

- Air extraction/ventilation system





## Multicell Test Modules

### Multipurpose functional testing

- / Run-in tests with high temperature profiles, (re)flashing, RF tests

### Double-cell configuration with independent operation

### DUT-specific mechanical design

### Fully electrical movements

- / Electrical axis for DUT precise coupling
- / No compressed air supply required

### Maximum simultaneous testing of 24 devices per test station



## PRODUCT DESCRIPTION

Controlar **MTM - Multicell Test Modules** are incorporated within the **CMTS - Compact Multicell Test System** and have the capacity to execute multiple functions, enabling the integration of diverse functional tests.

The modules are designed with multicell capability, allowing for two Device Under Test (DUT) per module, according to the specific product and functionality. Due to the high complexity and numerous configurations, a modular design approach was employed for ordering and assembling different modules. Thus, smaller reusable modules can be utilized across various designs. This facilitates easier development of complex modules for different products and functionalities.

## KEY FEATURES

Modular design approach that fits complex test modules for different products and functionalities

Independent modules changeover:

- Specific module insertion/removal does not affect other modules' test process
- Custom loading lift available for safety/ergonomic standards

Careful optimization in terms of wiring, space availability, and shared resources within the multicell capability.

Featuring specific modules, including a multicell shielded box for RF testing, a temperature box for run-in tests and flashing.

## PRODUCT CONFIGURATION

### / Main components

- Mini-PC
- DUT base plate
- Connector box
- Electrical box
- Interface panel

### / Modules capacity

- Dependent on the specific product and functionality.
- Multicell capability (up to 300mm DUT width)

### / Rear connections

- Modular rear panel interface connector
- Extra rear panel connections for mini-PCs direct access (USB + HDMI)

### / Modules changeover

- Similar handling to other standard lifters
- Semi-automatic system for locking and unlocking modules
- Can be used as a quick debug station

### / Modular PCB system with "Plug & Play" solution

## TECH SPECS

### CMTS

#### Dimensions (in mm)

1200 (W) x 2030 (L) x 2500 (H)

#### Communication protocol

EtherCAT network

#### Power supply

/ Voltage: 3P/N/PE 400 Vac (standard)

/ Frequency: 50/60Hz

/ Current: 25A

/ Electrical power: 17,3 kW

#### Pressure

6 bar (max)

### MTM

#### Dimensions (in mm)

560 (W) x 960 (L) x 140/210 (H)

#### Weight

~30-40 kg

#### Power supply

/ Voltage: 230VAC

/ Frequency: 50/60Hz

/ Current: 3A

/ Electrical power: 0,7 kW

#### Pressure

6 bar

#### Software/ Communication protocol

EtherCAT network

#### Tests

/ Bluetooth and WIFI embedded and

external antennas loopback test

/ Audio production self-test

/ Video in/out loopback

/ RF antennas

/ Automotive audio bus – A2B self-test

/ Ethernet loopback tests

/ Check ground pins

/ Undervoltage

/ CAN test communication

/ Software flash to unit

## MAIN APPLICATIONS

This concept is specifically suited for the Automotive industry for functional testing of electronic components, with the possibility to be integrated into automated factory production lines and worldwide distribution.

# Innovation, Quality and Passion for Engineering.

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