engineering innovations worldwide



talos state-of-the-art device handling system





talos device handling system

1

made for all testers



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sealed doors to **avoid icing** at cold test operation processes

4+1 axis pick-and-place system (x | y | z1 | theta | z2) with **high contact force of 450N** (optional up to 800 N)



laser distance sensor + camera for x|y|z teaching

most flexible and easy-to-use
tri-temp pick & place device handling system

 · device range from 1.0 x1.0 x 0.4 mm (0.04" x 0.04" x 0.02") to 70.0 x 70.0 x 10.0 mm (2.76" x 2.76" x 0.4")

 \cdot tray, tube, and tape loading \mid unloading possible

44.8"

1,140 x 1,740 mm (44.8" x 68.5")



FIFO or BIN sort mode with **free tray | tube | tape assignment**



15.6" widescreen HMI with multi-touch capability



active thermal control system (ATC)

enhancing semiconductor industry efficiency with innovative test equipment solutions

Adaptive for most existing setups: existing sockets, boards, etc. can be used without any modifications

Docking interface: standard docking interface compatible with all testers

Cable dock engineering board support: engineering boards with cable docks can be used with a special board support

Remote control: remote control via Ethernet

Lowest time to test: switching from one package to the next in under 5 minutes

Test parameters stored in recipe files: no mechanical fine alignment is necessary

Automated testing: multiple test cycles at different temperatures without requiring user interaction

Testing temperature range: from -60 °C to +175 °C (-76 °F to +347 °F) with an active thermal control system (ATC) for cold/hot tests, allowing for tri-temp testing

Portability: easy to move, small footprint

Compact footprint: with the esmo phoenix cart the smallest test cell footprint in the market

Basic configuration or a customized modular handling system: tailored to individual requirements and intended use

Reliability and maintenance: high mean time between failures (MTBF) values, low maintenance efforts





Unlock limitless possibilities with the talos

Built on a robust 4-axis portal, the talos device handling system offers unparalleled adaptability, capable of meeting a vast array of customer demands. Our dedicated team is ready to design a tailored concept that aligns perfectly with your individual needs.



handling key features

exceptional accuracy and reliability with advanced 4+1-axis portal pick-and-place robot system versatile loading and unloading options, incl. manual tray, tube or tape loading free PIN1 orientation for seamless integration high contact force of 450 N (800 N contact force optionally available) user-friendly 15.6" widescreen HMI featuring multi-touch capability integrated camera system for precise pick-and-place position teaching FIFO or bin sort mode, offering free tray | tube assignment RS232 or optional GPIB tester interfaces for seamless connectivity



capacity: 8 low-/high-profile JEDEC trays | autom. tray stacker 15 trays adapterplates for 2" and 4" waffle packs available quick changeover to tube loading option within 5 minutes only freely programmable BIN classification with input | output assignment low jam rate: max. 1 error per 8 hours or less

capacity: max. of 8 input | 8 output tubes max. tube dimensions: 21 mm x 12 mm x 530 mm (0.8" x 0.5" x 21") max. device length: 17 mm tube compatibility: supports plastic and/or metal tubes low jam rate: max. 1 error per 8 hours or less

compatible with tray / tube unloading option tape widths: modules available for 8 to 32 mm tape widths cold and hot sealing possible low Jam rate: max. 1 error per 8 hours or less

module exchange: toolless module exchange with quick-release lock

temperature control features active thermal control option (ATC)

closed loop temperature control with an integrated sensor in the temperature head

highest accuracy achieved by directly measuring the temperature at the heat sink, in conductive contact with the device

ability to control high IC power dissipation during electrical testing

software-operated air flow control system with human-machine interface (HMI) feedback included

set temperature can be changed from the tester via GPIB or RS232:

ne adjustment during testing
ne adjustment during testing

||| single-insertion at multiple test temperatures is possible

multiple tests at different temperatures without requiring user interaction

fully integrated cooling unit controlled by the handler software.

two configuration options available: electrical air chiller and LN2 heat exchanger.

- electrical air chiller with a system specification of -50 °C (-58 °F) DUT typical junction temperature
- LN2 heat exchanger with a system specification of -60 °C (-76 °F) DUT typical junction temperature

system interior is sealed and purged to prevent icing

modular and expandable temperature system





various optional features

tray | tape | tube loading/unloading

vision alignment

temperature control + cooling options

high contact force (up to 800N)

traystacker

dual ionizer

air dryer unit

vision system option for small-device contact position correction self-teaching system, no adjustment required no mechanical pre-alignment required for device sizes of 1 x 1 mm to 5 x 5 mm

field upgradeable compatible with standard conversion kit higher contact force available on request

self-regulating ionization level 2 electrical air fans (compressed air not required) adjustable direction and blowing speed

vacuum generator

multi-site-contacting

code reader

ESD acryl glass cover

external status lights

z2 with contact force control feature

junction control (JC) + power dissipation compensation (PDC)

contact force of z-axis motor up to 800 N (instead of 450 N)

to protect sensitive parts from damage due to electro-static discharge

decay time: at 1,000 V to 100 V in less than 5 s

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