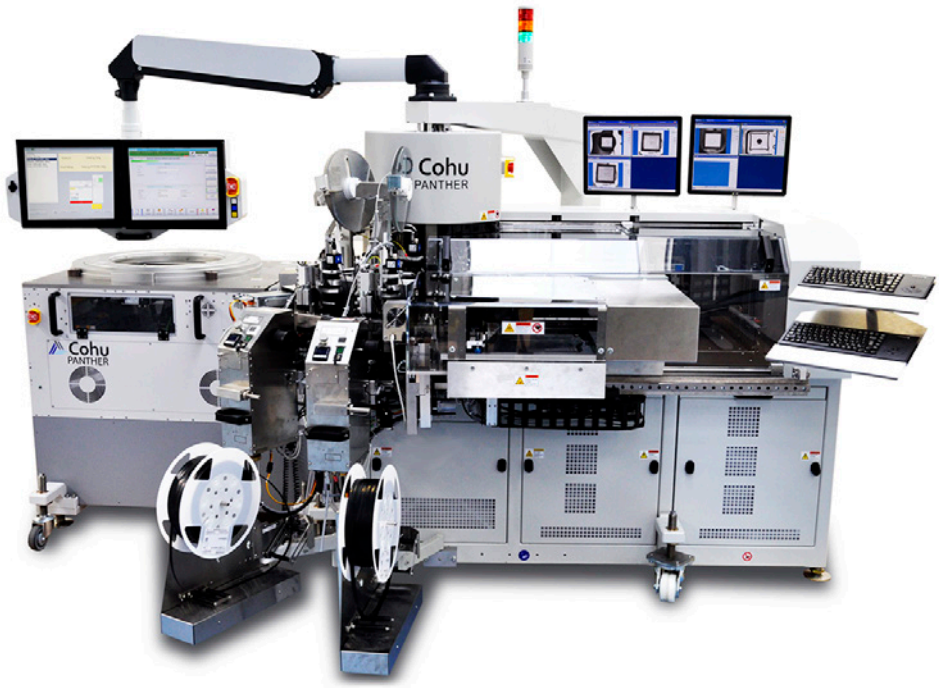
PANTHER WLCSP

High Performance Post Singulation Test




Automotive


Mobility


IoT/IoV & Optoelectronics


Computing & Network


Industrial & Medical


Consumer

Productivity

- High parallel testing with 100% touch down efficiency
- Kitless AccuChuck can accommodate various device patterns for reuse of existing probe cards / sockets
- High throughput for high volume manufacturing and high-volume QA

Flexibility

- Eliminates test escapes created by singulation process
- Direct docking to test head
- Full test and finishing process in one system
- Tri-temp testing range: -45°C to 155°C

- **Full traceability with MAP file update**
- **6 sides vision inspection (optional)**
- **Device alignment with vision (closed loop)**
- **Forceless device handling due to AccuChuck**

PANTHER WLCSP

High Performance Post Singulation Test

Process Capabilities

Platform

Input
- Wafer frame
- De-taping
- Waffle Pack

Output
- Tape & Reel

Output Sorting (manually)
- Jedec Tray
- Waffle Pack
- Wafer frame

Options and Features
- Contact tip to pad alignment by vision
- Kit less AccuChuck
- Direct docking to test head
- Tri-temperature testing
- Laser marking (optional)
- 6 sides vision inspection
- Multiple sorting in waffle pack or single wafer frame
- Automatic vision rejection & replacement in tape

*NV*core Vision Inspection
- 1D/2DMC code reader for wafer
- Marking inspection
- 2D/3D Flex ball/Bump co-planarity
- 6 sides surface inspection
- Pre-tape, In-tape, post sealing inspection

Testing
- High test parallelism with 100% touch down efficiency
- Tri-temperature testing
- Automatic probe card cleaning
- Contact tip to pad positioning accuracy ± 25 µm (3σ)

Performance Characteristics
- Process UPH up to 16,000 UPH with wafer input
- Process UPH up to 12,000 UPH with de-taping input
- MTBA: Typical ≥ 1 h
- MTBF: Typical ≥ 168 h

Specifications

Temperature Characteristics
- Temperature range: -45°C to 155°C
- Accuracy on DUT.: ± 2°C[1]
- Soaking capacity: 6 AccuChuck (max.)
- Time to temperature: ≤30 min[2]

1 with Cohu temperature pre-conditioned contactor over 10 sec test time
2 ambient (+25°C) to set point 3 vacuum pumps optional

ESD Control
- Field strength at device: < 100 Volt/inch (max.)
- Decay time: 1,000 V to 100 V in ≤ 10 seconds
- Ionizer balance: ±30 V (Class 1 ±5 V optional)

Electrical Interfaces
- TTL parallel interface for tester and laser
- RS232, GPIB (optional)
- Network: Ethernet capability
- Optional: SECS GEM (SEMI E4, E5, E30, E37)

Input Media
- Wafer Input Media
- Wafer frame: 4" to 12" wafer
- De-taping: 8, 12, 16, 24 mm

Output Media
- Tape & Reel (max. 2) : 8, 12, 16, 24 mm
- Waffle Pack: 2"x 2" (max. 32), 4"x 4" (max. 9)
- Wafer frame (max. 1): 4" to 12" wafer
- Jedec Tray: 2 (max.)

Device range
- WLCSP/QFN: 1 x 1 to 12 x 12 mm / thickness ≥ 100 µm

AccuChuck Dimensions
- Overall dimension: 55 x 175 mm
- Netto working area: 45 x 164 mm

Facility Requirement

I/O Modules:
- 100 VAC - 240 VAC 50/60 Hz, One Phase
- 3.5k VA with vacuum pump (optional)

Test Module:
- 208 VAC - 240 VAC 50/60 Hz, Three Phases
- 9.6k VA with vacuum pump (optional)

Common
- Air Pressure range: 6 to 10 bar ± 10%
- Air consumption: 700l/min (typical)
- LN2 consumption: 17l/hour
- LN2 pressure: 1.5 - 4 bar
- CDA: dew point < -70°C; temp range +15°C to +40°C
- Vacuum network: 0.6 Bars ± 10%
- Vaccum consumption: 1200l/min. (max.)[3]

Physical Dimensions
- Overall dimensions: 3 x 2.5 x 2.1 m
- Weight net: 1900 to 2400 kg (configuration dependent)

All specifications are subject to change without notification and are for reference only. For detailed performance specifications, please contact Cohu.

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www.cohu.com/panther-wlcsp
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