

exatron WLCSP

WAFER LEVEL CHIP SCALE PACKAGE HANDLERS



Model 922 Chip Scale Test
with Tape In/Out

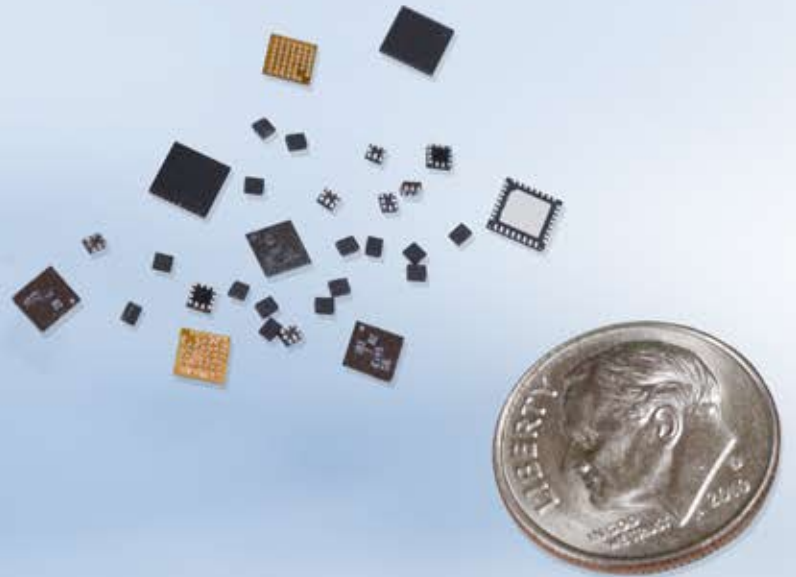
Our linear motor-driven
chip scale handlers
offer high-volume
throughput without
sacrificing accuracy
and without damaging
even the smallest
and most fragile
of devices.



Model 922 Chip Scale Test with Tape In/Out
and Top and Bottom Robotic Alignment



Model 911 Chip Scale Program
with Tape In/Out and 3D Inspection



(Package sizes pictured are to scale)



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Exatron's building block design method allows seamless integration of a wide range of standard input/output, machine vision, and laser marking options with all WLCSP handlers.

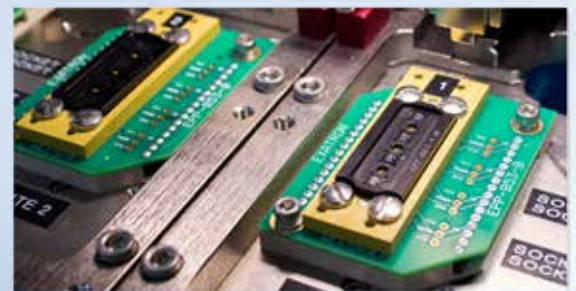
SHARED FEATURES AND OPTIONS:

STANDARD ON ALL WLCSP MODELS:

- Linear motor-driven gantries allow incredible accuracy and speed.
 - Resolution: 0.03mm (0.001")
 - Max Velocity: 150cm/s (60"/s)
- Exatron-designed test/program sockets designed to handle gently fragile devices.
 - Devices are held in place by pickup head or by pneumatic clamps during test.
- Dino-lite digital microscope aids in calibration of production distances.
- Output tape comes standard with in-pocket Pin1 inspection.
- Input tape features pneumatic shutter to prevent small devices popping out of tape.



Model 922 Chip Scale Test with Tape In/Out



Exatron-designed WLCSP Sockets



Output Tape with In-pocket Inspection



Input Detaper with Pneumatic Shutter



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Adding robotic alignment machine vision options allows precise handling and laser marking of devices as small as 0.8mm x 0.8mm.

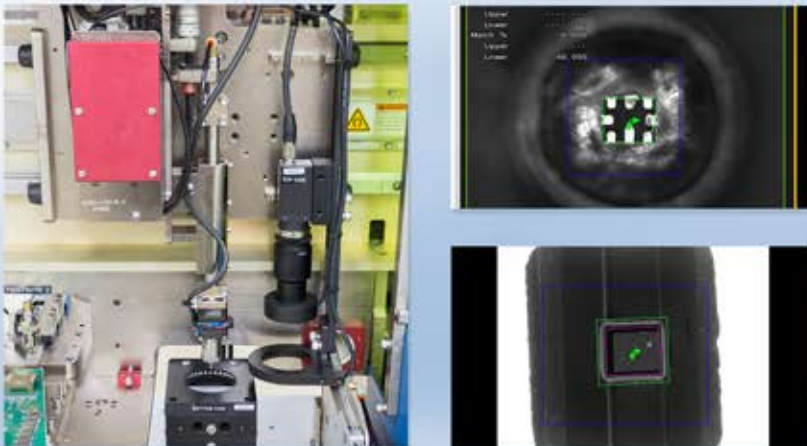
HANDLER SPECIFIC FEATURES:

- Top inspection conducts gross alignment to ensure precise pickup.
- Bottom inspection identifies X,Y, angle position of device and pickup head adjusts as needed.
- 360 degree rotating pickup head travels on X, Y, and Z axes.
- Easily adaptable to random sort and bulk input applications.
- Pneumatic laser precisor pockets ensure precise marking of small devices.



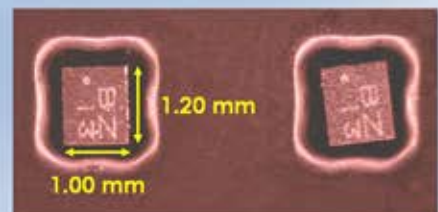
Model 922 Chip Scale Test with Tape In/Out and Top and Bottom Robotic Alignment

ROBOTIC ALIGNMENT:



360 XYZ Pickup Head w/ Top and Bottom Cameras (left)
Bottom Vision Inspection (top right);
Top Vision Inspection (bottom right)

LASER MARKING:



Laser Mounted on Handler (top)
Example of Small Laser Marked Devices (bottom)



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The Model 911 WLCSP Program Handler offers throughput of 2,000 units per hour with a ten second program time.

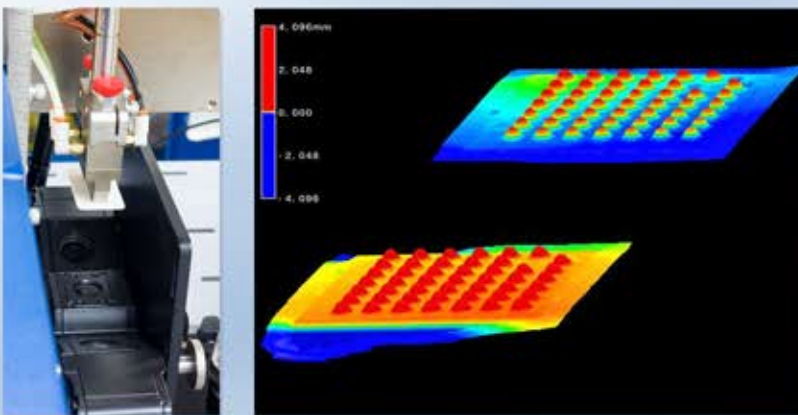
HANDLER SPECIFIC FEATURES:

- Up to 16 programming sites.
 - Two quad pickup heads with ping pong handler action.
 - Tape input/output.
 - Input direct from sawn wafer optional.
 - 3D bottom side inspection camera with Y axis motor mount.
 - Laser marking ready.
 - Auto remake of failed devices optional. Guarantees no gaps in tape, no doubled or missing serial numbers.
- Ideal for high security IoT applications.



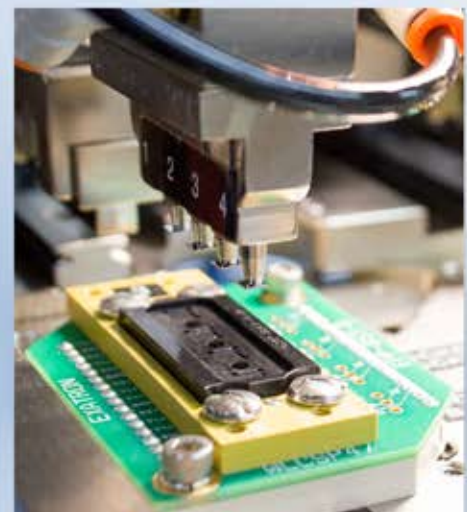
Model 911 WLCSP Program Handler w/ Tape In/Out and 3D Inspection

3D BOTTOM SIDE INSPECTION:



Quad Pickup Head at 3D Inspection (left)
Example 3D Inspection Image (right)

QUAD PICKUP:



Quad Pickup Head at Program Socket

