

A unique solution for testing MEMS Inertial Sensors

All-in-one system for testing, calibration, final inspection and packaging

- Architecture isolates the test of MEMS from outside noise and vibration, significantly increasing test accuracy and output
- No special requirements on the production floor for either the handling system or the tester
- Up to 3,060 signal lines (shielded)
- High parallel testing of up to 250 devices simultaneously
- Sense+™ system features all the capabilities of a turret automation platform
- g-sense™ test solution is independent of the Sense+™ system with maximum freedom of movement
- NV-Core™ Inspection System provides full final inspection and unit-level traceability from wafer input to tape & reel output
- DI-Core™ Data Intelligence System providing real-time equipment monitoring and data analytics for increased productivity

Sense+ with g-sense MEMS inertial test solution



*Sense+ system with
g-sense test solution*
High-volume production



*g-sense test solution can
be used standalone*
Engineering

Significant improvement in test accuracy and parallelism

- Sense+ system can operate on a standard noisy test floor with no need to stop handling for idle or silent mode during test
- Two dynamic axis with 270° (-90° to 180°) for best possible test flow
- Accuracy
 - Stable angular velocity: Yaw rate +/- 0.005%
 - High position accuracy: Axes < +/- 0.1° (typical 0.05°)
 - Noise level on DUT position: <10 Hz: typical 270 µg rms
- 32-position turret test and scan complete finishing solution with full 6-sided optical inspection
- Solutions for different packages across different loading media, wafer, bowl, and tray testing
- Flexibility to reconfigure the Sense+ automation platform to test different sensors; inertial, microphone, microphone-loudspeaker⁽¹⁾, pressure⁽¹⁾, and magnet⁽¹⁾
- g-sense test solution can be mechanically de-coupled from the Sense+ system for use as a standalone unit for engineering in a lab environment or low-volume manufacturing

⁽¹⁾ Roadmap development

NV-Core™

Inspection System



- Full 6-sided post testing die inspection
- Micro-scale defect detection down to 50 µm
- Vision assisted accurate die placement
- Completed unit-level traceability from wafer input to tape & reel output
- Pre-tape pocket integrity, in-tape device quality, and post-sealing quality inspection capabilities



DI-Core™

Data Intelligence System

- Real-time equipment monitoring and management
- Preventative maintenance
- Central recipe management
- Optimized yield and defect detection through real-time Artificial Intelligence inspection
- Knowledge database and unified reports



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/mems-inertial-test

Cohu, Inc.
12367 Crosthwaite Circle, Poway, CA 92064-6817
Tel. +1 858.848.8000 | info@cohu.com | www.cohu.com
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