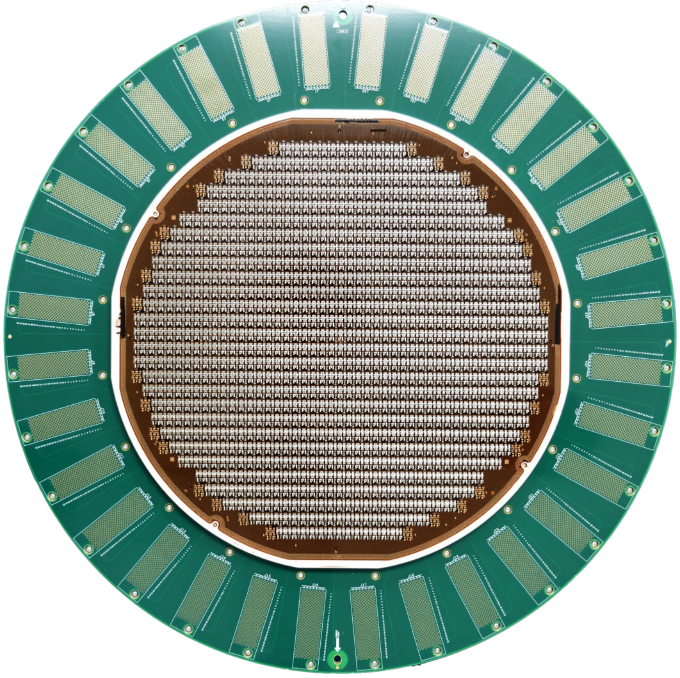
Genus

NAND 300 mm Probe Card Architecture

Overview

The Genus probe card is FormFactor's newest 300 mm full-wafer contact testing solution for NAND Flash applications. The product enables one touchdown capability for NAND Flash testing with high pin count capability addressing the industry's drive to increase bit growth and complexity. The ability to increase pin counts results in improved power delivery for 3D NAND with additional power and ground pins. Using FormFactor's proven 2D MEMS probes and space transformation technology, the Genus platform delivers optimum CTE matching for a wide temperature range, resulting in optimized probe placement and superior scrub performance. The Genus probe card offers dual temperature capability of -40°C to 130°C.



Features / Benefits

Higher parallelism, higher efficiency and lower cost of NAND test	• Increase throughput to test in excess of 35,000 probes • Test speeds of 125 MHz capable
Production proven 2D MEMS spring with superior tip position	• Scalable 2D MEMS MicroSpring™ technology enables flexible pad layout with superior contact performance and long probe card lifetime • Excellent current carrying capacity • Fine pitch capability down to 70 µm • Capable to probe on 50 µm x 50 µm pads
Superior thermal performance and design flexibility	• Full wafer contactor architecture optimized for single- and dual-temperature designs • Excellent scrub mark position across wide temperature range • Superior thermal operation to shorten soak time and improve scrub performance
Ease of use and serviceability	• Real-time planarity adjustment and optimization capability with probe card on the test cell • Single spring repair capability reduces time loss for service events and improves equipment efficiency

Main Applications

2D and 3D NAND Flash applications

Mechanical Parameters

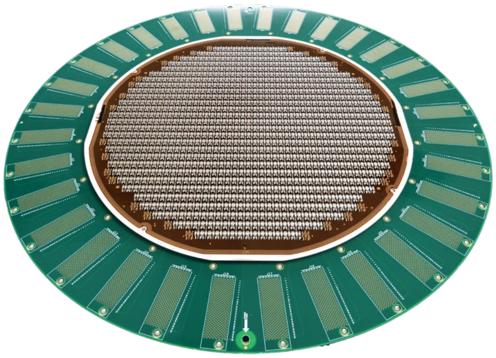
Minimum Pad Pitch	70 µm
Optical Planarity	≤ 25 µm
Operating Temperature Range	- 40°C to 130°C

Electrical Parameters

Maximum Frequency	125 MHz
Current Carrying Capability/Probe	≤ 400 mA, DC, ISMI

Layout

Minimum Pad Pitch	70 µm
Min Pad Size	50x50 µm (including 5 µm keep-out per side)
Pad Material	Al and Cu



Genus Probe Card for Standard Test Cell Operation

GENUS-DS-0222

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