

FINAL TEST PROBE ARRAY DESIGNED FOR WLP, WLCSP, ALL VARIATIONS OF WAFER PROBING

Better Characterization, Improved Yields & Higher OEE for Wafer Level Testing

Semiconductor companies needing timely execution for mobile device applications and other WLCSP required product roadmaps, while also intent on optimizing Operational OEE, will want to leverage the innovative technologies and industry-leading final test expertise that Johnstech has incorporated into their new final test probe array, the *IQtouch® Micro*.



Pictured above is a single-site IQtouch® Micro probe array.

The new *IQtouch*[®] *Micro* Final Test Probe Arrays deliver unsurpassed low and stable contact resistance (CRES) by optimizing among several critical engineered parameters, including effective probe signal transmission path, operating window, and implementation of "smart touch" models for wafer probing. These models leverage predictable and stable elastomeric web force control and in-depth analysis of the probe/wafer I/O interaction.

Engineering

- Industry's Lowest CRES
- Stable, Accurate Test Signals
- Predictable Signal Length/Path
- Elastomeric Web Force Control
- Confident Characterization

Production

- Increase Yields, Less Retest
- Less Cleaning, Simplify Maintenance
- Reliable Probe/Elastomer Dynamics
- Superior Co-Planarity and Witness Marks
- Increase Operational OEE

Product Engineers and Test Engineers can now leverage a final test probe array that provides the industry's lowest and most consistent contact resistance (CRES) toward the welldefined device characterization and specifications that help them differentiate their devices in a competitive and fast moving market. The clean and stable test signal integrity achieved will also boost both confidence and productivity from device specification through product launch.

Production Floor Test Managers will achieve higher production floor OEE across all of their wafer probing test platforms for several reasons. The simple yet reliably robust probe and elastomer interaction provides the best test signal continuity, increased yields, less retest, and reduces the need for cleaning. Quick and easy site replacement cartridges will also boost throughput, increasing Operational OEE and getting product to the market.



PRECISION ANALOG TO mmRF.•))

IQtouch[®] Micro 400 µm and Greater Pitch

Electrical Specifications 400 µ	400 µm Pitch or Greater	
Contact Resistance (CRES):	< 50 mΩ (typical)	
Inductance:	0.38 nH Self	0.14 nH Mutual
Capacitance:	0.14 pF Ground	0.04 pF Mutual
Insertion Loss:	-1 dB @ 20+ GHz	
Current Carrying Capacity*: (Duty Cycle 100%, 10%, 1%)	1.5A, 2.6A, 2.8A .	

Mechanical Specifications	
Probe Free Height:	1.94 mm
Probe Compressed Height:	1.74 mm
Mean Force/Ball:	47 grams
Production Life:**	> 1,000,000 touchdowns
MTBA Cycle:	10K - 200K touchdowns.
Probe Tip Coplanarity:	± 25um.
Min. PCB Pad Size:	150 μm
Temperature:	-40° to 125° C characterization. 25° to 125° C production.

NOTE: These specifications are based on a combination of internal, third party test house, and customer data.

* Steady state conditions for a 20 °C temperature rise. Higher currents allowed for higher temperature rises. ** These specifications are typical values based on actual stable CRES production life will vary based on a wide range of variables including: Prober, Probe Array, and Probe Card interface.



Johnstech

Johnstech International Corporation • 1210 New Brighton Boulevard • Minneapolis, MN 55413-1641 USA Tel 612.378.2020 • Fax 612.378.2030 • www.johnstech.com • E-mail info@johnstech.com

© Copyright 2018-2019 Johnstech International Corporation. Specifications subject to change without notice. No part of this document may be reproduced in any form or by any means, electronic or mechanical, including photocopying, recording, or by any information storage or retrieval system, without expressed written permission from Johnstech. All Johnstech technologies and products are protected by United States and International patents, both granted and pending. All Johnstech trademarks and service marks are sole property of Johnstech International and cannot be copied, repurposed, and/or used in any format without written permission. For more info, visit www.johnstech.com/IP.