

Edge 400a

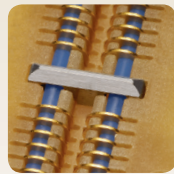
FOR HIGH FIDELITY DIMM, DDR1-4, PCI/PCI, AND OTHER APPLICATIONS

Your Optimum Solution for Memory Module Testing

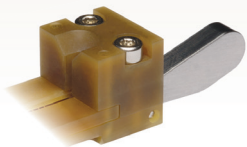
Johnstech's patented Edge technology exceeds the testing challenges of today's low-voltage (1.05-1.8 VDC, 2133-3200 MHz, 3200 MT/S), DDR4 Memory Modules. The *Edge 400a* Series combines a modular design for easier component configuration/replacement and improved warped-module handling capability, with the Johnstech hallmark of excellent electrical performance and mechanical reliability. A Standard Reference Design Portfolio (to JEDEC specs) is offered in our SelecTest program for quick delivery (customization to meet specific ATE, enterprise server, or high-end database application requirements is available). For increased test cell efficiency, true DDR4 performance, and lower test costs, choose the Edge 400a.

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Edge 400a Series Contact Profile



Voltage Key



Alignment Tower



Guide Rails

Characterization

Edge 400a Contactors minimize parasitic-induced signal disturbances, creating an ideal environment for Module Characterization, Lab Testing and Prototype analysis.

- **Reduced Edge Rate Degradation**
- **Less Noise Incursion**
- **Reliable and repeatable results**
- **Lab results correlate 100% to Production Test**
- **Configurable from Manual to Automated Test**

Production Test

The *Edge 400a* Series lowers your Overall COT (Cost of Test) by providing:

- **Superior Electrical Performance**
- **Robust Mechanical Design**
- **Configurable & Replaceable Components: Alignment Towers, Contacts, Elastomers, Guide Rails, Voltage Keys and (optional) Ejector Levers**
- **Long Contactor/Component Life**
- **Low, Consistent Contact Resistance**
- **High First-Pass Yields**
- **Longer MTBA (Mean Time Between Assists)**
- **Improved OEE (Overall Equipment Efficiency)**



Edge 400a

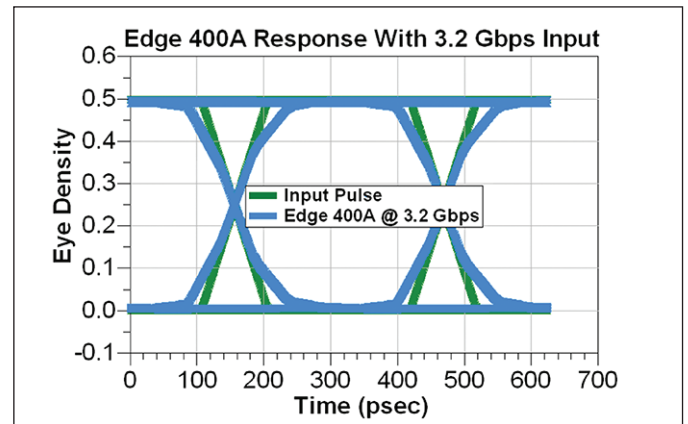
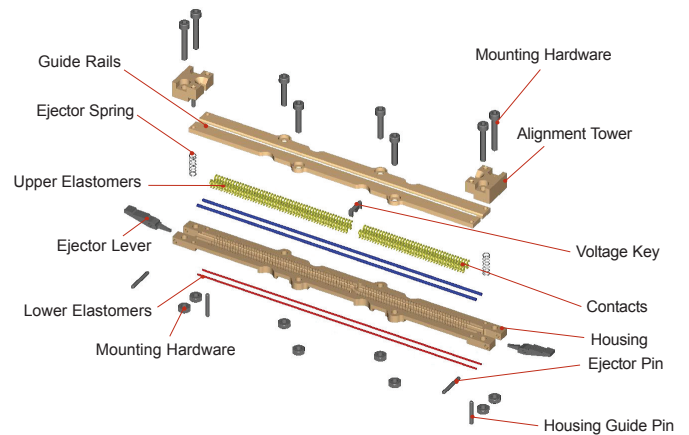
Electrical Specifications	1.0 mm Pitch	0.60 mm Pitch
Electrical Length	2.60 mm	2.60 mm
Inductance:	Self: 0.82 nH Mutual: 0.31 nH	Self: 0.51 nH Mutual: 0.23 nH
Capacitance:	Ground: 0.56 pF Mutual: 0.21 pF	Ground: 0.74 pF Mutual: 0.33 pF
S ₂₁ Insertion Loss (GSG):	-1 dB @ 12.2 GHz	-1 dB @ 8.2 GHz
S ₁₁ Return Loss (GSG):	-20 dB @ 2.8 GHz	-20 dB @ 1.8 GHz
S ₄₁ Crosstalk (GSSG):	-20 dB @ 20.5 GHz	-20 dB @ 3.4 GHz
*Impedance (GSG): (GSSG):	37.6 Ω 64.1 Ω	29.1 Ω 32.8 Ω
Average CRES: (over 20K insertions):	<20 mΩ	<20 mΩ
Current Carrying Capability*:	5 A	5 A
Current Leakage:	<10pA @ 10V	<10pA @ 10 V

Mechanical Specifications	For 1.0 mm & 6.0 mm Pitches
Physical Compressed Height:	4.02 mm
Contactor Life (# of insertions):	Elastomers = 300,000 Contacts = 500,000 Housing = 2,000,000 Alignment Towers = 750,000 Guide Rails = 750,000 Voltage Keys = 750,000
Contact Compliance:	0.20 mm
Contact Wipe on Pad:	0.13 mm
Contact Force:	28 grams
Contact Tip Coplanarity:	0.05 mm
Environmental:	-40°C to 155°C
Housing Material:	Ultem® 2300
Contact Material:	Beryllium Copper plated with Nickel and Gold (BeCuNiAu)

Edge 400a Series Standard Reference Designs

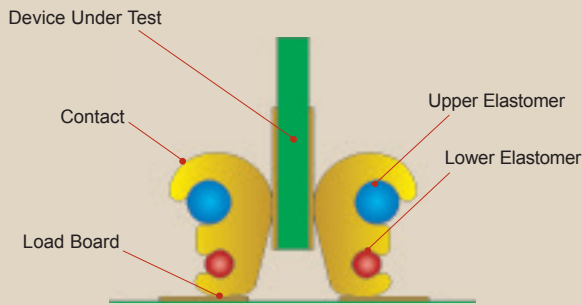
Johnstech offers a catalog of standard reference designs developed to JEDEC standards and various handler-interface specifications. Custom designs to meet other application requirements are also available. Contact Johnstech for assistance.

Edge 400a Contactor Components



1.0 mm Contact with Optimal Load Board - Simulated with Contactor (3rd Party). Input Pulse Rise and Fall Time = 100 ps

Methodology



Johnstech Services/Resource Options

Test Floor Technical Support - Worldwide Field Service Offices; First-Pass Yield Enhancement; Performance Audits; Customized Training and Applications Engineering. Online Tech Support at www.johnstech.com/support

Engineering Services

Mobile RF Modeling, Wafer Level Thermal Analysis, Die Shrink Test Planning, Test Signal Integrity Optimization, Test Cell Integration, and Probe Card PCB Evaluation.

Website (www.johnstech.com)

Product, Test, Industry Support Information; Downloadable, Product Spec Sheets; Maintenance and Inspection Guides; Tech Papers and Application Notes.

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