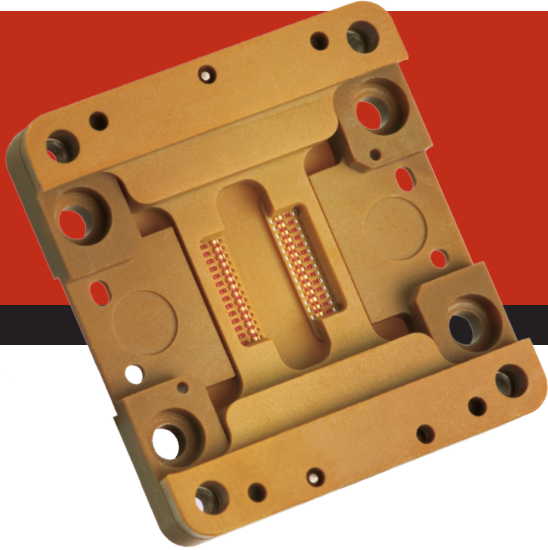


Leaded 2mm

For QFP, SO, SOIC, SOJ, SOP, PLCC, TSOP, and SOT Applications



Mechanical Reliability with Electrical Performance

Since 1992, Johnstech's patented "S" Contact Technology has proven itself to become the industry standard for leaded packages in High Performance Test. The unique wipe motion, upon compression, delivers precise mechanical lead contact for superior, high fidelity electrical performance. With an optimized design featuring a close decoupling, the Leaded 2mm also employs a configurable Ground Insert System to meet the Grounding and Thermal requirements of today's high performance RF and precision analog applications. For consistent results from the Lab to the Test Floor, the Leaded 2mm is the proven test solution for you.

Characterization

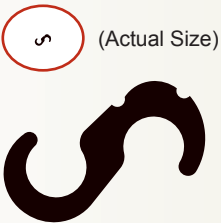
The Leaded 2mm offers the most comprehensive solution for Manual Device Evaluation, Lab Testing, Prototyping and Characterization

- Designed to test up to 10 GHz
- Reliable and repeatable results
- Lab Performance correlates 100% to Production Test Floor
- VMA and ZMA Manual Actuators have a lifespan of 10K+ insertions

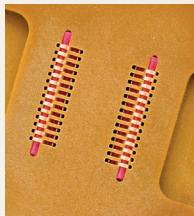
Production Test

The unique "S" Contact Technology of the Leaded 2mm provides many Production Test benefits:

- Long, Proven & Exceptional Product History
- Excellent Electrical Performance
- Consistently Low Contact Resistance
- Refined Small Footprint Design
- Several (optional) Grounding Configurations



(Actual Size)



View of Contactor on Load Board Side



ZMA
Z-Axis
Manual Actuator



VMA
Vertical
Manual Actuator

Your Contact for Higher Performance

Johnstech®

Johnstech Leded 2mm Contactor Specifications

Electrical Specifications	Gold-Plated Contact*
Electrical Length (compressed height):	2.14
Inductance:	Self: 0.47 nH Mutual: 0.20 nH
Capacitance:	Ground: 0.34 pF Mutual: 0.15 pF
S ₂₁ Insertion Loss/Bandwidth (Ground-Signal-Ground):	-1dB @ 15.3 GHz
S ₁₁ Return Loss/Bandwidth (Ground-Signal-Ground):	-20dB @ 5.4 GHz
S ₄₁ Crosstalk/Bandwidth (Ground-Signal-Signal-Ground):	-20dB @ 33.9 GHz
Average Contact DC Resistance:	<20 mOhms
Current Carrying Capability:	6.50 A
Current Leakage:	<1pA @ 10V
Contact to Decoupling Area:	2.25 mm

Mechanical Specifications	Gold-Plated Contact*
Physical Contact Length:	2.20 mm
Physical Compressed Height:	1.34 mm
Contact Life (# of insertions):	Elastomers = up to 500,000 Contacts = up to 500,000 Housing = >1,000,000
Contact Compliance:	0.20 mm
Contact Wipe on Lead:	0.10-0.15 mm
Contact Force (per contact):	120-150 grams
Contact Tip Coplanarity:	0.05 mm
Environmental:	-40°C to 155°C
Housing Material:	Torlon® 5030
Contact Material:	Beryllium Copper Alloy

Results for 0.5mm pitch configurations. Specifications provided here are based on internal testing at Johnstech, customer production sites, and third party electrical testing. Actual individual results may vary based on a wide range of variables including: handler/contactor/load board interface, handler plunge depth and velocity, device presentation, alignment plate condition, package plating characteristics, test floor conditions, maintenance activities, mounting/fastening techniques, non-coplanarity from site to site, non-coplanar docking, and temperature extremes.

Manual Actuator

VMA (Vertical Manual Actuator)
ZMA (Z-Axis Manual Actuator)

Housing Options

Housings are offered in standard handler specific sizes with custom sizes also available

Contact Options

Gold-Plated
Pitches from 0.40mm - 1.27mm

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

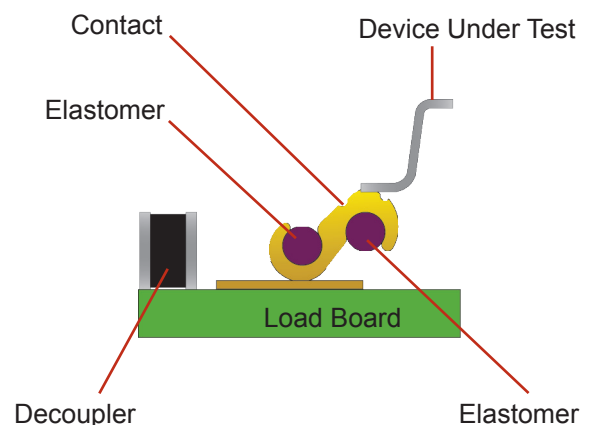
Engineering Services

Load Board Evaluation & Testing; HFSS 3D Modeling; Electrical Performance Analysis; PCB/Contactor/Device Optimization; Contactor S Parameter Data; Thermal Conductivity Analysis and Advanced Design System (ADS) Simulation, Analysis & Optimization.

Website (www.johnstech.com)

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

Methodology



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