



ULTRA® S

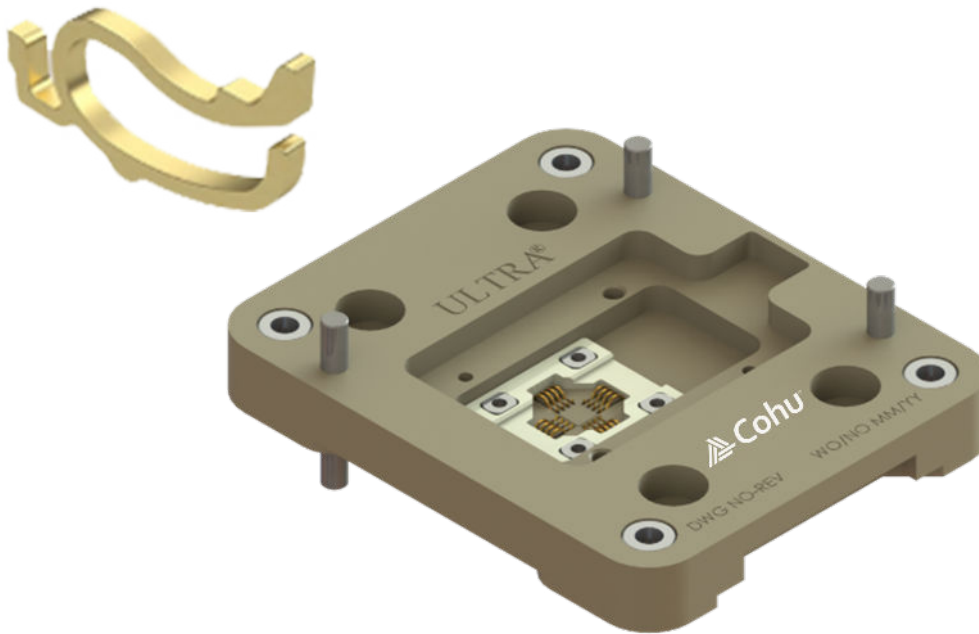
Cantilever Spring Pin Test Contactor

ULTRA[®] S

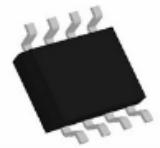


Horizontal MEMS Cantilever Technology

Elastomer-Free Cantilever Test Interface Provides
Tight Thermal Control, Higher Test Yield, and Longer-Life Time



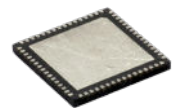
Applications



Power Management



Microcontroller



Radio Frequency

End Product Markets



Automotive



Consumer



Industrial

Supports 0.4 mm Pitch & Above

Key Features

- **Temperature Resilience.** Tri-temp. range -60°C to +175°C. Operates reliably across wide temperature ranges, including automotive-grade and high-temperature test environments.
- **Electrical Performance.** State-of-the-art electrical performance; outstanding pin-to-pin CRES stability 30.0 mΩ, 5.2 A continuous current carrying capability, and 15 GHz insertion @ -1 dB.
- **Tight Thermal Control.** Integrated thermal air channels improve temperature accuracy at the device under test for improved and accurate temperature control
- **Long Lifespan & Lower Maintenance.** Easily maintainable MEMS technology with self-cleaning micro-wipe. Long lasting cantilever springs reduce socket changeovers and downtime. Delivering a lower cost of ownership with fewer replacements, less cleaning, and lower maintenance frequency.
- **Improved OEE.** Simplified low-cost design reduces contact resistance drift and mechanical inconsistencies delivering improved yield. Productivity is increased by eliminating waste, maintenance downtime, scrap, and retests.
- **Easy Test Handler Integration.** The design offers easy integration to most test handler platforms and is a drop-in replacement for traditional elastomer-based contactors.

Uncompressed Height



Compressed Height



Easy Contact Pin Installation & Maintenance

Contact pin is installed by sliding it into pin slot.



Unlike Elastomer-Based Interfaces ULTRA S is
Unaffected by Compress Set, Temperature or Humidity

ELECTRICAL SPECIFICATIONS

	Matt Tin Configuration	NiPdAu Configuration
Maximum Peak Current (1% Duty Cycle) ⁽¹⁾	52.0A	50.6A
Maximum Continuous Current ⁽¹⁾	5.2A	5.1A
Contact Resistance ⁽²⁾	30 mOhm	70 mOhm
Insertion Loss @ -1dB	15.36 GHz	
Return Loss @ -10dB	12.50 GHz	
Self-inductance	0.80 nH	
Mutual Inductance	0.40 nH	
Ground Capacitance	0.13 pF	
Mutual Capacitance	0.09 pF	

MECHANICAL SPECIFICATIONS

	Matt Tin Configuration	NiPdAu Configuration
Package Sizes	3 x 3 mm to 10 x 10 mm	
Minimum Contact Pitch	0.40 mm	
Uncompressed Height	1.60 mm	
Compressed Height	1.40 mm	
Scrub Mark Length	~ 0.06 mm	
Contact Force	30 - 40 grams	60 - 65 grams
Operating Temperature	-60°C to +175°C	
Lifespan (Housing)	> 2.2M Insertions	
Lifespan (Contact Pin)	>500K Insertions	

All specifications are subject to change without notification and are for reference only. Use contactor drawing to design interface hardware. For detailed performance specifications, please contact Cohu.

(1) At 20°C ambient temperature as the set point till up to 200°C

(2) Resistance is measured between Au plated sheets