

PAD ROL® 200

FOR QFN, DFN, AND OTHER PAD-STYLE APPLICATIONS

Your Solution for Analog / Mixed Signal / RF Testing

Johnstech's patented ROL® technology provides excellent electrical performance and proven mechanical reliability for Precision Analog, Mixed Signal and RF applications. The ROL® 200 Series provides Contact/Elastomer configurations for the unique challenges of matte tin and NiPdAu packages.

ROL® 200 Contacts	Device Platings	
Gold-Plated	Matte Tin & Tin-Based Nickel Palladium Gold	

Characterization

ROL® 200 Contactors are ideal for Manual Device Evaluation, Lab Testing, Prototyping and Characterization

- · Designed to test to 20 GHz
- · Reliable and repeatable results
- Lab Performance correlates to Production Test Floor
- Robust Manual Actuator life of 10k+ insertions

Production Test

The "rolling contact" design of the ROL® Contactor, which creates a self-cleaning wipe action, provides extensive Production Test benefits:

- Consistent Contact Resistance
- Optimized Electrical Performance
- Higher First Pass Yield
- Repeatable Site-to-Site Performance
- Longer MTBA (Mean Time Between Assists)
- · Prolonged Load Board Life
- Simple Maintenance & Rebuilding
- Improved OEE (Overall Equipment Efficiency)
- Lower Overall Cost of Test



Gold-Plated Contact Profile Matte Tin Configuration



Low-Force XL-2 Contact Profile NiPdAu Configuration





SL-VCMA
Single-Latch Vertically
Compliant Manual
Actuator



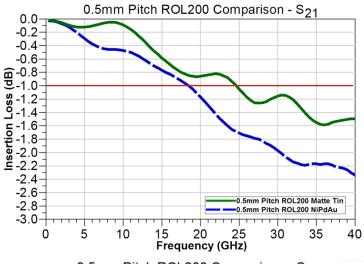
Pad ROL® 200

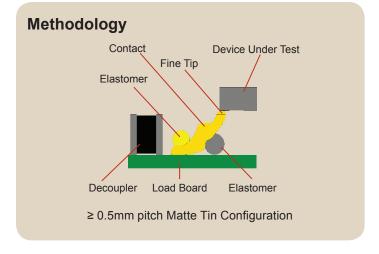
Electrical Specifications	Matte Tin Configuration	NiPdAu Configuration
Electrical Length (compressed height):	2.00 mm	2.07 mm
Inductance:	Self: 0.42 nH Mutual: 0.24 nH	Self: 0.55 nH Mutual: 0.24 nH
Capacitance:	Ground: 0.35 pF Mutual: 0.13 pF	Ground: 0.35 pF Mutual: 0.12 pF
S ₂₁ Insertion Loss (GSG):	-1dB @ 24.6 GHz	-1dB @ 18.5 GHz
S ₁₁ Return Loss (GSG):	-20dB @ 5.2 GHz	-20dB @ 5.8 GHz
S ₄₁ Crosstalk (GSSG):	-20dB @ 18.2 GHz	-20dB @ 29.5 GHz
Average CRES:	30 mOhms	<20 mOhms
Current Carrying Capability**:	3.8A, 6.0A, 9.8A	3A, 5.1A, 9.3A
Current Leakage:	<1pA @ 10V	
Nearest Decoupling Area:	1.58 mm	

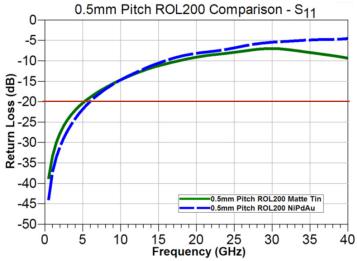
Mechanical Specifications	Matte Tin Configuration	NiPdAu Configuration	
Physical Compressed Height:	1.40 mm		
Contactor Life (# of insertions, Typical Performance*):	Elastomers = 300,000 Contacts = 500,000+ Housing =2,000,000+		
Contact Compliance:	0.20 mm		
Contact Force (per contact):	70 grams	30 grams	
Contact Tip Coplanarity:	0.05 mm		
Temperature:	- 40°C to 155°C		
Housing Material:	Torlon® 5030		
Contacts:	Gold-Plated	Low-Force XL-2	
Contact Material:	BeCuNiAu	Gold-plated Alloy	

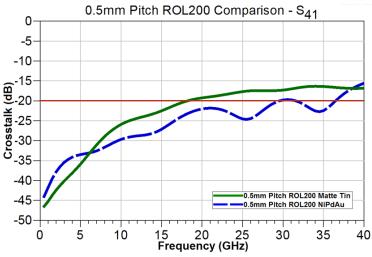
Results for 0.5mm pitch configurations shown here. Electrical specifications based on third party measured testing.

^{**} Test conditions: 300 msec pulse, 20°C temperature rise.









Johns<u>tech</u>°

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^{*} Contact, elastomer, and housing life values are TYPICAL based on Johnstech internal testing. Actual production life will 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 material and characteristics; test floor conditions; maintenance activities; mounting/fastening techniques; site-to-site co-planarity; docking co-planarity; and temperature extremes.